

## RESEARCH ARTICLE

# The labour process and workers' rights at Mercado Libre: hiding exploitation through regulation in the digital economy

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E-commerce platforms such as, most famously, Amazon use digitalised production systems in their warehouses. In this article we examine how such digitalised systems impact upon the labour process, the organisation of work and working condition in the warehouse of Mercado Libre in Argentina, the largest e-commerce platform there and in Latin America. In many respects, this case is aligned with the evidence emerging from similar studies on Amazon. The ubiquitous combination of algorithmic management with discretionary human management has limited the sphere of workers' autonomy and spaces of resistance, increased control to virtually any productive or unproductive time spent by workers in the warehouse and imposed stressful working conditions on workers, often with negative implications for health and safety. These conditions of exploitation common to digitalised workplaces have, however, been strengthened by the company's hiring strategy, based extensively on labour broking, on the high turnover of a young workforce, and the strategic use of the existing institutional regulatory framework and formal trade union representation to buffer management from workers' complaints. In this sense it is not regulation as such that is the key to better working conditions in the digitalised labour process but rather how that regulatory framework is effectively used and contested by workers' struggles on the ground to get concessions.

**Key words** logistics warehouse • algorithmic management • Mercado Libre • Argentina • workers' resistance

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## Introduction

Research on labour and working conditions in digital platforms and, broadly speaking, the gig economy has expanded in recent years. This growth has been coupled with debates about technological determinism and its critique (Thompson and Laaser, 2021);

with the algorithmic logic shaping the labour process of platform mediated work (Gandini, 2019; Barratt et al, 2020; Veen et al, 2020), to show the conditions of extreme precariousness suffered by workers employed in the sector (Wood et al, 2019; Delfanti, 2021a), but also how workers have been able to build incipient forms of collective organisation in such adverse contexts (Cant and Woodcock, 2020; Tassinari and Maccarrone, 2020). Much of this research has been primarily concerned with cases of digital platforms employing workers in the passenger transport and food delivery sectors located, mainly, in cities of the global North, and though mainly qualitative in their scope also includes reflections on the nature of labour conflicts and trade union involvement from a more quantitative perspective (Bessa et al, 2022).

Analyses taking examples from the global South are now starting to emerge (Anwar and Graham, 2019; Chinguno, 2019; Ford and Honan, 2019; Frey, 2020; Webster and Masikane, 2021). This work too, starting from an analysis of the effects of algorithmic management on income and working conditions, has explored how workers have used the digital infrastructure of their work environment to imaginatively innovate their forms of organising, such as with the mutual aid based organising used by Indonesian app-based drivers (Ford and Honan, 2019; Frey, 2020) or the WhatsApp virtual networks among Uber, Bolt and Uber Eats drivers in South Africa (Chinguno, 2019) or South America (Abilio et al, 2021; Elbert and Negri, 2021). Comparative research on these sectors across different countries (Webster and Masikane, 2021; Gutierrez Crocco and Atzeni, 2022), shows that organisational forms vary, sometimes building on trade unions and more often not, depending on the industrial relations context and the existence of external favourable conditions. An important finding across these studies suggests that, in southern contexts, platform work reproduces patterns of informal work in the specific labour market (Castel-Branco and Mapukata, 2021) and workers' organising adapts in ways that take advantage of existing or potential bargaining power (Webster and Masikane, 2021). Thus southern studies emphasise the non-linear embeddedness of these forms of work within local labour markets, the economy and complex worker organisational histories as key to explaining the dynamics. We take these insights forward to scrutinise in the article the less-examined terrain of e-commerce warehouse workers in the global South.

Due to the increase in the use of these services during the pandemic and the visibility of the 'essential' workers employed in the sector, research on the labour process, working conditions and workers' organisation in intermediary e-commerce platforms such as Mercado Libre and other firms in the global South is more pressing than ever, but still virtually non-existent. Given this gap of knowledge, the first set of questions the article will address concern the role played by digitalised production processes in shaping the labour process. In line with existing research on Amazon warehouses in Europe and the United States, preliminary evidence from Mercado Libre in Argentina seems to show that despite the pervasiveness of forms of algorithmic management in the direction, evaluation and discipline of the workforce, made possible by the application of a full-scale warehouse management system that governs every step of the production process by means of a wearable device (the handheld), the room for discretionary human management in decision making remains relevant. The possibility of identifying in team leaders and problem solvers the flesh-and-bone persons to be blamed for discretionary decisions about promotions, rewards, or changes in work assignments, together with the existence of some forms of embryonic solidarity and camaraderie despite workers lack of autonomy

in the labour process, helps workers to demystify company's meritocratic discourse and develop a sense of opposition. The second set of issues the article aims to address relates to the way in which the local labour market and the institutional, legislative and workers representation framework shape working conditions and dynamics of collective action. Contrary to institutional perspectives (Dörflinger et al, 2021), the existence of a highly regulated industrial relations and workers' representation system as that of Argentina's formal labour market in which Mercado Libre is inserted, it is not per se a guarantee of better working conditions but rather an obstacle to the effective development of collective instances.

### **Algorithmic management in logistics warehouses: regulation or techno politics of resistance?**

Research on the labour process in logistics warehouses in the North of Europe (Dörflinger et al, 2021; Pulignano et al, 2022), on Amazon fulfilment centres in Germany, France and Italy (Delfanti, 2021b; Massimo, 2021; Kassem, 2022) and on a range of algorithmically controlled platform and manual labour in Germany (Schaupp, 2021), has helped to explain the mechanisms through which flexibility and consent are extracted from workers in different ways according to the existence of different production regimes and institutional settings across countries and locations.

Understanding how different accumulation contexts and local institutional environments mediate between corporate strategies and their implementation in the workplace is undeniably an improvement in labour process analysis, which has been historically 'weaker in explaining employment systems and their impact on workplace relation' (Pulignano et al, 2022: 4). In recent research on logistics dealing with these aspects, however, one can clearly see the existence of two different political departure points. On the one hand, analyses in the institutionalist tradition looks at whether and how employment relations actors, particularly trade unions, influence the institutional environment producing what Streeck calls 'beneficial constraints' (Steeck, 1997) on corporate strategies. On the other hand, researchers adopting a more explicit Marxist perspective critically analysing the role of institutions, including trade unions, in digitalised workplaces, stress the importance in these particular environments of forms of resistance and organisation from below.

Within the first line of inquire, Pulignano, Thompson and Dorflinger (Pulignano et al, 2020), in their comparative study of a logistics multinational through its service divisions in Germany and Belgium, demonstrate that trade unions, in different forms and degree depending on each country's industrial relations settings, have been successful in opposing capital's attempts to circumvent and/or exploit existing institutions. Following a similar conclusion, in a previous article co-authored with Vallas on third-party logistics in Belgium, the Netherlands and Germany (Dörflinger et al, 2021), Dörflinger and Pulignano argue that the relative lack of mobilisation of workers in the companies studied, is fundamentally due to differences in the institutional regulatory frameworks of the countries analysed. The stronger and more protective is the regulatory system, and the more the power of trade unions as part of that regulatory system, the better it will be for workers to negotiate labour conditions in their favour. Thus, for these authors, in contexts of high regulation such as in Belgium, production regimes are shaped in the form of an 'institutional mutuality' that gives power to workers and forces management to compromise; in contexts of less

powerful regulation, a regime of ‘hegemonic flexibility’ seems to dominate, forcing management to negotiate consent; finally in contexts of poor regulation, ‘coercive flexibility’ forces workers to accept management decisions.

Compared to these analyses, studies on Amazon’s warehouses seem to present a different picture, partly related to the company and the specificity of the labour process and its surveillance mechanisms within this (Delfanti, 2021a) and to the systematic use of temporary workers (Boewe and Schulten, 2020). This difference is not just in terms of the subjects leading the struggles, who are often organised outside the structures of formal trade unions along racial and migrant lines of collective identification (Alimahomed and Reese, 2021), but also in terms of the strategic use by the company of existing regulation to break unionisation. ‘Amazon legally cannot fight works councils or deny the existence of Ver.di but uses the former to eliminate the latter’ (Kassem, 2022: 452). As we will develop at length in the empirical part of the article, Mercado Libre’s decision to sign a collective agreement with a small trade union previously representing only workers unloading trucks in regional wholesale fruit and vegetable markets (*Union de Carga y Descarga*), by formally complying with the law in terms of trade unions representation but virtually eliminating alternative possibilities of workers organisation, it is strikingly similar to Amazon’s strategy in Germany as pointed out by Kassem. This seems to put in evidence, at least in the case of digitalised warehouses such as Amazon and Mercado Libre, the limits of institutionalist perspectives in focusing on established trade unions as the main actors of workplace change and in establishing a positive relation between the existence of institutional regulation and workers’ on the ground gains, a tendency more in general of comparative studies of union strategies (for instance, Kornelakis and Voskeritsian, 2018; O’Brady, 2021).

Adopting an explicit Marxist approach, in his study on digitalisation processes in manufacturing and logistics, Schaupp (2021) argues that processes of digitalisation are producing what he calls ‘cybernetic proletarianisation’. He thus stresses not only that workers’ labour process has become increasingly controlled and algorithmically determined, but also that the same mechanism produces cycles of expulsion of workers and thus creates an increasingly deskilled, proletarianised mass of workers. However, his cases demonstrate that, despite the penetrating changes produced by digitalisation in the configuration of work, workers are able to organise resistance in individual or collective terms, producing new ‘techno politics of resistance’. Contrary to Dörflinger et al’s (2021) ‘trade unions as institution’ driven model, Schaupp’s cases seem to demonstrate that ‘the digital economy does not seem to be very fond of the institutions of social partnership... instead a more antagonistic mode of negotiation seems to arise’ (Schaupp, 2021: 14).

These contrasting findings from northern European countries open further questions when processes of digitalisation of manual labour and its potential regulation are considered in the contexts of the global South. As the case of Mercado Libre warehouse in Argentina demonstrates, the existence of a strong industrial relations framework defending workers’ rights at the national level and formal trade union representation at the workplace level have not been sufficient to develop forms of ‘institutional mutuality’ as argued by Dörflinger et al (2021) in relation to highly regulated contexts. Indeed, regulation has been used by the company to hide the massive use of labour broking and high levels of turnover in a clear anti-collectivisation strategy supported institutionally by the trade union representing workers in the

sector. Thus, it is not regulation as such or the presence of a trade union the key to better working conditions in the digitalised labour process, but rather how that regulatory framework is effectively used and contested by workers' struggles on the ground to get concessions. This opens broader questions about the forms of workers' organisation and workers' interests and collectivisation in the digital economy from the perspective of a sector that holds potential for engaged unionism, unlike the more individualised work of ride-share and delivery drivers examined more commonly in the global South.

## **Mercado Libre, a Latin American Amazon?**

For many Latin Americans, Mercado Libre represents, in their everyday life of online market transactions, what is for much of the rest of the world Amazon, the by-default platform on which to buy and sell virtually anything. From the point of view of a business model, Amazon was copied by Mercado Libre in many respects, and Amazon Web Services are used by the same Mercado Libre to run its operations (Rikap, 2020).

Mercado Libre's business model is built around three main interconnected activities: the selling and the delivery of products and the provision of payment and financial services to sellers and buyers. These activities are integrated and interconnected through the online platform and the software developed for the associated apps (Mercado Libre, Mercado Pago and Mercado Envio). Other services (Mercado Shops online shops and Mercado ads, which allow sellers to appear more quickly on the platform) complement the main activities. The company defines this integrated system as an 'eco-system',<sup>1</sup> almost implying that its system mirrors the perfect integration and harmony usually provided by the natural environment.

The company started in Buenos Aires as a 'garage' dot-com company at the end of the 1990s, specialising in bids and reselling and imitating Ebay (which would later support Mercado Libre financially), and went on to become the most important Latin American company in the online marketplace and e-commerce sector (reaching a Wall Street market value of \$10 billion in January 2021), a unicorn in digital business environment slang (more on Mercado Libre's history and origins is available in Filipetto and Pontoni, 2020). In recent years, and particularly coinciding with the growth of the sector due to the pandemic, the company has expanded strongly in the logistics sector, opening newly built warehouses and fulfilment centres in many countries of the region and building its own fleet of planes and vehicles for logistics operations and last mile delivery<sup>2</sup>. Thus we can say that, by now, their activities as a whole have been vertically integrated. Similarly to what occurred in the processes of vertical integration of twentieth century industries such as the automotive sector, this integration and the digitalisation and algorithmic management of the whole production flow allows the company to operate tight time and quality control of all stages of the sale and delivery, and to offer high performance service in an economy-of-scale context serving millions of customers. At the same time, this vertical integration has enabled the establishment of direct links between the volume of sales registered on the platform at a certain time and the volume of products that need to be processed in the fulfilment centre. This aspect is central to the way in which the labour process is organised in the fulfilment centre, as we will see later.

The company presents itself as an innovator that has democratised and reduced inequality in access to the market by allowing sellers to reach a market of millions, that has created direct employment and that has generated economic growth through credit to small and medium enterprises.<sup>3</sup> It also claimed this innovator role at organisational level, particularly by describing the company as an organisation based on meritocracy, where talents are valued, where people are paid well and treated fairly and where work–life balance is respected.<sup>4</sup> This company's characteristics, together with the 'garage' history and spirit, constitute the company's own 'DNA' – an identity with the company's values that all employees should have. In the discourse of the company and in the everyday chat of warehouse workers, reference to the DNA is a constant and the lack of this DNA is the most common, default justification used by company representatives for making people redundant. While the image of a meritocratic company tends to shape and permeate employees' identity for quality high skills jobs at the central administration level (Palermo and Ventrici, 2020), for the manual low skill workers that constitute the big majority in the warehouse we are studying, there seems to be a distance between the rhetoric and the reality.

### **Mercado Libre's warehouse in Argentina**

For Mercado Libre, Argentina represents the third most important Latin American market after Brazil and Mexico, and its arrival in the country as a logistics services provider is relatively recent compared to these countries. At the moment, the company owns only one warehouse (or fulfilment centre as it is called) in the greater Buenos Aires area, although others are planned to serve the major urban areas Cordoba and Rosario. The fulfilment centre, which opened at the end of 2019, is a massive 65 000 m<sup>2</sup> building, divided into 64 by 62 shelf lines on four floors. Production is organised around three shifts of eight hours, six days a week: morning (6am to 2pm); afternoon (2pm to 10 pm); night (10pm to 6am). Shifts include a 30 minute break and 45 minute meal break. Given Mercado Libre's commitment to dispatch items stored in the warehouse within 24 hours from the time the order is placed on the platform, shifts are normally characterised by fluctuations in demand, with the late afternoons and early nights showing a daily peak in demand. Because of this and the characteristics of certain operations (for instance, the receiving and dispatching areas do not normally operate at night because trucks of sellers and third-party logistics companies do not come in), the company normally reassigns workers to departments in need of more personnel or gives a free day or half day to workers who are surplus to requirements in order to compensate for extra hours performed on other days – a time bank system is used. About 3000 workers are currently employed in the fulfilment centre, though this is an estimate by the workers interviewed, given that the vast majority of workers are employed on a temporary basis with high turnover levels. Permanent and temporary workers are equally represented in terms of gender balance, and are mostly students and all young (18 to 25 years old, with the latter age apparently used as a sort of termination date for those on temporary contracts regardless of their previous performance). They wear uniforms of different colours but basically do the same job and are paid roughly the same salary (though in the case of permanent workers, certain benefits apply, such as holidays and social security). The majority of workers live within a 30km radius of the plant in a densely populated

urban area of 13 million people. The company provides shuttle buses from and to the main train stations and public squares of the area.

## **Methodology**

The following sections analysing the labour process in the Mercado Libre warehouse are based on 12 in-depth online semi structured interviews, collected between August and September 2021 with former and actual workers from the warehouse, with both temporary and permanent contracts and from different sectors of the fulfilment centre (though many had achieved experiences of more than one sector only) who were contacted through the website LinkedIn. Interviews were carried on in equal number with males and females workers in the age range 18–25, recruited using both a random and snowball method. As previously mentioned, it is a company policy to recruit workers through an agency among a young mostly student population.

Interviews topics included: description of the recruitment process and of the training associated with this in order to identify skills requirement and the criteria used to promote workers to permanent positions; description of the working day, including data on shifts, tasks, performance indicators in order to understand how human discretionary management overlapped and was interlinked with algorithmic management; description of workers to workers and workers to union relations in view of identifying space of collective identification and resistance.

All names in the report have been changed for anonymity reasons. The company initially supported the research and promised to give us access to the facility but, unfortunately, we were ultimately not given permission to visit the warehouse. Despite this difficulty, paradoxically the research's fieldwork has been made possible by the company's own policy of inviting its 'collaborators' to open accounts on the social media platform LinkedIn, a cloud 'virtual' meeting place that transformed into an almost real square where hundreds of formal and current workers can be actually found. Journalistic accounts and the company's own institutional video materials have been used to add details to the reconstruction of the labour process presented by workers. Interviews did not include delegates of the official union due to the lack of access to the plant premises and the difficulties in recruiting them via social media. These interviews would have certainly helped to describe the day-to-day activities of delegates in the plant and added nuances to the union role on the shopfloor. However, due to the vertical structure of trade unions in Argentina, strategic decisions are normally taken at central level and interviews with unions leaders at that level are difficult to be achieved for research purposes, especially in the context of Mercado Libre and the logistic sector. A similar attempt with *Camioneros*, the 'competitor' of the *Union de Carga y Descarga* in representing workers on the sector, has proven unsuccessful for the same reasons.

## **An overview of Argentina's industrial relations system**

Despite its peripheral position in the world economy and the recurrent economic crises, Argentina's industrial relations and labour legislation system continue to represent important building blocks in terms of workers' rights and labour protection in the formal sector (though this employs today about 50% of the working population). Established in the 1940s during Peron's double presidencies, the system gives a

powerful role to the State in mediating between capital and labour during situations of conflict, forcing the suspension of this and submitting it to a binding arbitration (called *conciliación obligatoria*) and in promoting collective bargaining at national and sectoral level. Together with an extended set of workers' individual rights, the system promotes workers' representation by giving one trade union in each economic sector the power to negotiate and represent workers in that sector, particularly by means of collective bargaining, and by assigning to legally representative trade unions public funds for the management of members' health services (called *obras sociales*). Thus, compared to other countries in the region, and against the tendency in the rest of the world, trade unions in Argentina remain organisations economically strong and politically relevant (in particular for their long-term, though conflictive, association with the Peronist movement), continuing to play an important part in the defence of workers' rights and representation. Workers' representation is further strengthened at workplace level by elected shop-floor commissions (*comisiones internas*) and by the trade union role as a health-service provider. This system of representation creates monopoly power and a tendency to bureaucratisation and top-down organising. However, a counter tendency has also historically appeared with more militant bottom-up forms of organisation that have challenged existing trade union leaderships, often using the existing *comisiones internas*. These tendencies and counter tendencies and inter-union disputes over the representation of workers in new emerging sectors have always contributed to a conflictual dynamic in workers' representation in Argentina (heightened by the need to frequently negotiate wages given Argentina's high inflation (about 100% a year). These tensions and inter-union dispute can also be found in the case of Mercado Libre.

### **Workers representation and inter-union conflicts in the logistics sector and at Mercado Libre**

The logistics sector in which Mercado Libre operates is a contested sector that involves not only last-mile transport and distribution but also the warehouses in which products are stored and processed, which in their turn serve broader e-commerce platforms such as Mercado Libre. At the same time it is a sector that is expanding fast and creating new groups of workers in need of representation. In Argentina, the truckers' union (Camioneros) has gradually extended its sphere of representation since the 1990s to virtually anything that moves or is connected with movement, representing workers employed by various logistics companies, many of which operate as Mercado Libre subcontractors in last-mile delivery, as well as workers employed by companies such as Coca Cola to distribute beverages. Camioneros is a well-known union in Argentina with a high level of mobilisation capacity and a loyal membership who occupy a strategic structural position that gives them power in the marketplace and the economy as a whole. All this makes Camioneros a highly powerful political player, with leverage over governments of any colour and feared by employers at workplace level (Llamosas, 2022)

Knowing this background, before opening its fulfilment centre at the end of 2019, Mercado Libre had already guaranteed the formal recognition of its workforce and signed a highly flexible collective contract with the *Union de Carga y Descarga*, a small union formally representing low-skilled manual workers in central fruit and vegetable markets in the greater Buenos Aires. This move was strategically planned to



avoid the presence of *Camioneros* in the plant, but has not gone unopposed. In July 2020, less than a year after the beginning of Mercado Libre operations in Argentina and in the middle of COVID-19 lockdown measures, *Camioneros* organised a blockade of Mercado Libre subcontracting operators' warehouses that nearly stopped the activity of the fulfilment centre, in protest against the precarisation of truck drivers working for these companies and directly blaming Mercado Libre for this (Filipetto and Pontoni, 2020). The conflict easily became the object of media and political attention, and the situation called for high level government intervention to de-escalate the conflict.<sup>5</sup> *Camioneros* suspended the blockade but continued to make claims in courts and at ministerial level for representation of Mercado Libre workers. These legal attempts have not been successful so far. La Union de Carga y Descarga has been recognised as the organisation legally in charge of representing workers at Mercado Libre.<sup>6</sup> However, the strategic position occupied by *Camioneros*, representing workers in Mercado Libre subcontractors, or changes in the socio-political context, such as a future government coming to power which is more hostile to trade unions, are important factors that could change the current status quo.

So far, the company strategy to keep one leg in the framework of industrial relations, by accepting a formal union presence and by signing a contract and negotiating high wages with this union, and another outside, by massively hiring temporary workers, has been successful. For all the workers interviewed, the union and its elected shop-floor delegates were considered distant entities and remembered more for being the organisers of excellent Christmas parties than for defending workers. Clearly, the massive use of temporary workers plays against the possibility of future collective responses either within or outside the existing union framework. However, one may expect that, the more the company grows, the greater will be the number of those on a permanent contract in a position to make demands within the available legal framework.

## **Work organisation and the labour process**

### *Work organisation in the warehouse*

Work is organised around four main operations: check in, put away, picking and packing. During the check in, products are downloaded from trucks and lorries, checked for quantity and quality, assembled into pallets and then moved to the next operation, put away. During put away, products are distributed to shelves following a random chaotic pattern. A warehouse management system (WMS) registers the exact location of any single product in the plant using the information input into the system by workers scanning each product and the shelf in which it is stored with a handheld device. This has the advantage of providing a more efficient allocation of products on the shelves, and of scattering products which are normally in high demand across different parts of the plant, making the following picking operation more efficient. However, there are rules that apply to the random distribution pattern that workers need to follow: not more than five different products should go onto the same shelf; the whole volume of the shelf must be filled; and similar products or products with a similar packaging must not be put together. During picking, products are picked up from the shelves in an order algorithmically determined by the WMS on the basis of

the information recorded in the system. Workers get orders from the handheld device in the form of a picking-up route they have to follow, and indicating each single product they have to pick. The final operation consists of the preparation of boxes and packaging of items according to the nature of the product to be delivered and of assembling products on the basis of the postal or logistics provider taking charge of the delivery. In Argentina, by contrast with what happens in other countries of the region, the last-mile delivery is done by external companies. This appears to be linked to the presence in last-mile logistics of *Camioneros*, known for its militant approach, as we have previously mentioned.

*Specific features of the labour process: team leaders and the human in algorithmic management*

No specific work experience is required to work in Mercado Libre; all operations are characterised by a great amount of manual, low-skill physical work that can be learned in less than a day. There is no formal training. Workers learn their job by doing it or, where possible, by shadowing and following people with more experience. Though a training role is assigned specifically to some workers (these are normally permanent and are called ‘multipliers’) in each team or section of the plant, training is usually provided informally, often by workers on a temporary contract with just a few months’ experience. Robots are non-existent and there are very few processes of automation in the plant. Products are moved manually one by one or by trailers when moving products across large distances, and machines and elevators are used to help lift very heavy stuff. The fact that production appears almost entirely reliant on manual work is in contrast with findings from studies reporting the increasing use of robots and automation processes in Amazon fulfilment centres in Europe (see [Delfanti, 2021b](#); [Massimo, 2021](#)). This can be linked to the relatively cheaper cost of labour in Argentina, which would make robotisation an expensive option, and to the still relatively low volume of items processed compared to Amazon, though this is changing very quickly following the COVID-generated expansion of e-commerce.

Workers are normally assigned to a particular operation and, within that, to a particular section (they are assigned to a ‘mother process’ as it is called). Despite this, job rotation is quite frequent, either for reasons associated with production volumes or to workers being reassigned by managerial decisions. Picking, for instance, is a department in which demand for personnel is normally high. It’s a very monotonous, repetitive and stressful job in which people are constantly under surveillance, with pre-assigned productivity targets. Nobody wants to work in it and none of the permanent workers do. Workers reported that assigning people who have inadvertently criticised management to this department is used as a punishment. (People are invited at the beginning of the shift to make comments, raise concerns and propose improvements to the production process.)

Each section is organised as a working team coordinated by a team leader, who has the function of being both a personnel manager (taking decisions regarding lay-offs of temporary workers, holidays, licences, problems on the job and reporting on performance) and a production manager. They can also assist in case of high volumes, and they work directly on the production line. At the beginning of the shift, team leaders are told the volume expected to be processed and variations

occurring in this volume during the day, and distribute the workforce to cover the work positions within the section accordingly. The volume and the need to process it as quickly as possible is central to any team leader's decision making and is constantly reinforced by the company's customer satisfaction discourse. Also connected with this volume-driven approach is the use team leaders make of performance data and how they communicate this data to their teams. A labour management system (LMS) records the time spent by workers in the rest and recreation rooms, in the toilets or in any other activity outside their assigned work position. This, combined with the data from the WMS, allows management to establish the number of hours effectively worked in productive operations, and thus determine a hierarchy based on merit that gives access to benefits (for instance, a free day if there's low volume) and to positive feedback for temporary workers' aspirations of getting a permanent position and for permanent workers' aspirations to get promoted. Team leaders also get an extra bonus for the overall productivity of their sector and in certain cases, this, together with the direct control they have over each worker's performance, has created 'toxic' situations where team leaders are obsessed with productivity targets. In one of these cases, the team leader exerted peer pressure by making public to the whole team the names of those who were under-performing and sending out graphics reporting each individual performance at different moments of the day. In other cases, pressure was applied more discreetly on a one-to-one basis or was created by publicly praising, at the beginning of the shift, those individuals who had out-performed the previous day.

Team leaders are almost the same age as the workers on their team so it is quite normal for all of them to establish relations of friendship and camaraderie that continue outside the plant with many workers who are formally subordinated to them in everyday activity. So a dimension of favouritism tends to dominate the decisions they take. Workers report that people with low productivity or other low performance indicators often get benefits just because they are friends of the team leaders.

Team leaders are helped in their production manager role by so called 'problem solvers'. These are workers with IT skills who, by accessing the data recorded in the WMS, can detect where a problem in the flow of processing occurred, identify the person who was in charge and adopt or suggest measures to solve the problem. A recurrent problem is the mismatch between what is recorded in the WMS as an item stored in a certain shelf and what is actually stored in the same shelf. Problem solvers are normally workers who used to be involved in manual work who have IT skills or a predisposition to IT and have gained experience in the post by helping other problem solvers and team leaders. The job is entirely non-manual, and it is what the majority aspire to given that it is a step forward in the promotion path and a way out of a physically demanding job.

Other important job positions exist in between each of the main operations. The so-called *arquero* (goal keeper), for instance, is in charge of pallet stretching in the check-in area and of collecting empty boxes left on each floor by put-away workers. Pallet stretching, which is wrapping a pallet in cling wrap for transport, is done manually by a single person to the order of 200 pallets a day, and the task produces back pain due to the repetitive movements involved. Together with the extra task of collecting boxes from the floors, this was remembered by a worker as a hectic everyday routine which literally caused 'shaking':

I was running all day from top to bottom, ending the day, and I'm not lying, shaking. But at that time I was happy, I had an athletic and trained body and it didn't cost me so much.<sup>7</sup> (Pablo interview, 2021)

Another important activity is what is called 'inventory and stock control', a process between put away and picking which consists of checking whether what has been put away on shelves corresponds in quantity and location to what is in the system as recorded by put away workers. It is a kind of quality control job which needs to be done in a proficient way, avoiding mistakes, given that its scope is to detect other people mistakes, but it is nonetheless subjected to productivity targets (number of items and shelves scanned) as are the majority of jobs in the fulfilment centre.

Specific arrangements exist for receiving and checking heavy items (bicycles, TVs and so on) and supermarket goods that are heavy and also fragile. In these sectors, there are no individual productivity targets. People normally work in small teams to carry heavy and fragile goods with lots of autonomy from management. Their work is always performed within a predefined, limited space in the plant. They do not run from place to place as in picking and put away. Workers from these sectors highlight the existence of comradeship and friendship among them and a relatively relaxed work atmosphere – though always depending on the volume of items to be processed – that may lead some people to hide from work, increasing the workload of those who do actually work.

## **Productivity, control and cooperation**

Productivity is always controlled on an individual basis. Workers have to process a predetermined number of items for each hour of work. This number constantly changes at management's discretion, following increases in the overall volume processed in the fulfilment centre. The increase in e-commerce demand due to the pandemic and further increases given the Argentinean market (which is nevertheless way below the levels of USA or European demand), has been reflected in a corresponding increase in the rhythms of production. While the number of workers employed in the fulfilment centre has grown steadily since October 2019, this has not been enough to cover for the increase in volume. For instance, during check-in of heavy items (check-in RK as it is called), a worker explained that she started with a target of 90 items an hour, which had reach 230 by the time she was dismissed just few months later. While in this section, workers work together to move heavy goods and can thus share the burden of the increases, for people in other sections life is more difficult.

During picking and put away, for instance, there is no possibility of sharing work. Tasks are performed independently on the basis of algorithmic management and productivity is calculated strictly on an individual basis, on the number of items picked or put away per hour. On top of this, in calculating productivity, the system does not differentiate the size of items picked or put away. This concretely means that those who pick or put away big or medium size items (for instance books, small electrical appliances, big boxes) normally have low productivity compared to those who have many small light items (such as headphones) in their buckets, each counting towards the productivity target. Individuals could thus have a bad unproductive day simply due to bad luck (because a truck carrying books instead of headphones had

entered the warehouse process that day). Knowing this can happen, team leaders often do send other people out to help or can ask team leaders of other sections to send more people out to give a hand. However, this is not always possible, as high volume complicates changes, and is a bit cumbersome to implement given that team leaders need to amend the low productivity number scored on the system of both the worker who was putting away or picking heavy or big items and the worker who was helping, who had in turn to suspend their own pre-assigned work. Similar situations of workers penalised by something outside their own direct responsibility occur frequently in the fulfilment centre due to the strict interrelation between different operations which are all part of a single just-in-time production process. Despite this, mistakes committed by workers are counted as their own even if the mistake was a consequence of somebody else's mistake in a previous stage. Team leaders can, discretionally and depending on the relation they have with the workers involved, decide to delete the mistake from the performance report and avoid penalisation of workers. However, as in the previous case, we are seeing here a mismatch between algorithmically predefined assignments, management set performance targets and discretion in human-based management interventions that, most of the time, work against the worker, who pays the final cost. Workers tend to consider team leaders obsessed with productivity to be directly responsible for these situations, blaming some of them for the existence of a toxic environment, as we have seen. While this might be partly true given the productivity incentives team leaders receive, one may wonder if putting the final responsibility for mistakes on the shoulders of workers, even when generated by supposedly wrong or blind algorithmic decisions, is not in reality part of managerial polices built into the nature of all digitalised labour process arrangements. For instance, as recorded in recent research on platform delivery workers during the pandemic (Gutierrez Crocco and Atzeni, 2022), platform management (by humans) has used the digitalised intermediation of work (by machines) to purposefully discharge the risks associated with the pandemic onto workers (such as increased street violence, or customers cheating), thus actually increasing the extraction of value from a group of workers greatly exposed to the virus. A similar logic seems to exist in the digitalised fulfilment centre analysed.

A tightening of control accompanied the increase in productivity that started at Mercado Libre coincident with the market created by the pandemic. This control was exerted particularly through the implementation of the labour management system (LMS) as a criterion to measure overall performance. However, LMS for workers is not just attached to the evaluation of their work but is also physically experienced as an instrument of control any time they use a toilet or go to the restroom. In fact, a system of barriers has been implemented in these facilities that allow access by badge only. By scanning their electronic badge, workers are immediately feeding the control system: 'There is a terrible time control, for everything you have to sign in, even to go to the bathroom'<sup>8</sup> (Fausto interview, 2021); 'Inside there it seems to be a dictatorship, they constantly watch everything, everything is recorded even if it is a mistake'<sup>9</sup> (Pablo interview, 2021).

Despite increased control, workers have been able to introduce small changes to the labour process in order to make their work more efficient and use low demand moments to create buffers to cope with high demand volumes later, to reduce pressure and avoid mistakes that would penalise them, thus basically creating space for some form of autonomy in their labour process (see Burawoy, 1979). This was, for instance,

the case with packing boxes for electronic products, the ones most in demand and making up a high percentage of the whole volume, or with ad hoc techniques to store items faster during put away. In picking, workers can also 'cheat' the WSM and the individualisation of their work by exchanging buckets with fellow workers to amend the WMS and management policy of not differentiating between heavy and light items. In one case, this cheating of the system was seen as an explicit act of solidarity: 'For me, it was always a matter of comradeship... if I got a bucket of 100 headphones that weigh like the 5 books in another bucket, because "the weight limit per bucket" is 10 kilos, I put myself in the other person's situation and changed the bucket'<sup>10</sup> (Cecilia interview, 2021).

People frequently establish friendship relations that remain even after the working day finishes. Many share the same apartment, social life, use the same transport or come from the same university. Sorority and comradeship seem to exist but, overall, greater collective interest and cohesion do not seem to emerge. This can be attributed to various factors related to the specific organisation of work in the warehouse: the individualised structure of the labour process, the highly competitive working environment that generates peer pressure, and the tight control which makes cooperation difficult and does not create opportunities for sharing.

### **Mercado Libre's hiring strategy: anti collectivisation through labour broking**

These factors, however, are facilitated by the company's strategy of massively recruiting workers on temporary contracts: 'They hire temporary workers in an abysmal way',<sup>11</sup> said Cecilia (interview, 2021). 'They kick you out and you go to the mass grave',<sup>12</sup> said Clara (interview, 2021), to indicate the high number of workers who are regularly dismissed. About 70 per cent of the workforce is made of people recruited on temporary contracts and discharged within few months, often independently of their performance on the job. Obscuring the criteria for selection for permanent posts is arguably another company strategy to keep pressure on the workforce, who are driven to outperform by the carrot of stable employment: 'In the plant the company has a continuous improvement program in place. I have presented two improvements which were approved. But this wasn't enough to get a permanent job'<sup>13</sup> (Clara interview, 2022).

The ratio between fixed and contracted workers has changed with the start of the pandemic, with more and more workers recruited on a temporary basis. However, while the company recurrently presents itself as a 'serial' recruiter by offering job opportunities by the thousands in the middle of the pandemic (and advertising partnership with food chains such as Burger King and Starbucks to absorb workers made redundant in the food sector due to the pandemic (Hatun, 2020), high turnover rates remain hidden from view. On the one hand, Mercado Libre has formally contracted out the whole system of recruitment of this important part of the workforce to the international recruiting agency Randstad, which has its own offices in the plant. On the other hand, the strategy used by the recruiting agency when formally discharging people is to ask them to sign a voluntary resignation letter, arguing that this would facilitate a new job offer in the future. In this way the high number of layoffs of contracted workers appears to be based simply on individuals' decisions rather than on an explicit company strategy which remains hidden from view.

This reality is in contrast with the image of Mercado Libre as 'best employer' as supported by practices of inclusive and respectful management of people, for instance in cases of mothers returning to work (soft landing) and the provision of company kindergartens. This image of 'best employer', of a meritocratic company in which career development is not just possible but at the core of the company DNA, is constantly echoed by the company media channels and by management discourse but remains far from the reality of warehouse workers.

An impending issue that potentially aggravates the conditions of work in the warehouse is the emergence of health-related problems, especially for permanent workers. The accumulation of physically demanding work days characterised by repetitive movements, lifting heavy items and uncomfortable postures for long periods very often produce tendinitis, back pain and other postural problems that can turn into chronic and permanent health issues such as herniated discs. Both temporary and permanent workers have mentioned these health issues as a major problem:

It's a job in which you end up physically broken.<sup>14</sup> (Faustointerview, 2021)

My first experience in Meli [Mercado Libre] was wonderful, I was delighted. Later, the second time I worked, I realised that it wasn't like that and I understood why... there was an enormous physical exhaustion, after a month I had back pain that there's no words to explain... I couldn't walk.<sup>15</sup> (Julia interview, 2021)

Mentally I was super stressed and bitter, physically very hurt and working with pain in a place that you no longer like but that you have no other alternative is a horrible feeling of impotence.<sup>16</sup> (Pablo interview, 2021)

However, while duties provoke discomfort and overall fatigue for the first group but are basically gone with the end of their generally short employment experience with Mercado Libre, the longer exposure to these working conditions builds up much more serious consequences for the permanent group. This is partly due to workers' own decisions to postpone taking sick leave to avoid the consequent salary reduction – there is a 10 per cent bonus for job attendance – and partly due to the personnel office's strategy of discouraging workers from going for first aid assistance in hospitals, where they could get a diagnosis, a cure and a sick leave certificate on the same day, and to rather get an appointment with a specialist, which can take up to a month to get. This strategy, which in the discourse is aiming to take good care of workers' health, is in reality used to avoid sudden disruptions, postpone the problem and keep workers on the job despite health issues, which actually get worse with the passing of time.

As with the high turnover levels, concerns related to workers' health conditions and the consequences in terms of production days lost due to absences remain obscured and do not affect production because of the continuous flow of contracted workers. This has been clearly the most successful hidden company strategy to keep potentially conflicting issues at bay. This strategy, however, has been implemented together with a policy of high salaries. Compared to other workers in the logistics sector and beyond, salaries at Mercado Libre are quite generous, reaching a value approximately twice the minimum wage (around \$700 a month). For permanent

workers, the collective contract that regulates their work, signed by Mercado Libre and the *Union de Carga y Descarga*, provides benefits traditionally associated with formal work such as holidays, social security contributions, regular increases to keep salaries at the level of inflation and so on. On top of this, the company often adds special compensation for high productivity associated with special periods (in 2020 bonus of \$500 was paid to award workers for their effort during the pandemic) or days (Black Friday, for instance). For young people, mostly students with no previous job experience, these levels of earning represent a lot of money and a powerful incentive to work hard, up to the point of putting their health at risk by accepting a work process that is physically hard, in exchange for money. On top of this, the image of Mercado Libre as a cool, successful, modern, meritocratic company that values individuals has conquered the hearts and minds of many young workers who identified with Mercado Libre's DNA and wanted to 'vibrate' (another word loved by Mercado Libre) with the company, only to later touch with their hands a different reality. Pablo, a permanent worker, said:

The company sweetens your ears when you enter, you believe the whole story... I worked hard to remain as permanent worker, and this was recognised by colleagues and superiors. I was happy because I was going to have a formal job, I was already saved... But I didn't know what I was getting into, when I went to work I went with my head held high, super proud... When I realised what it really was I didn't want to work anymore, I wanted to go home, I was leaving the plant in tears.<sup>17</sup> (Pablo interview, 2021)

## Conclusion

In analysing the labour process and the everyday dynamics of work organisation in a warehouse owned by Mercado Libre in Argentina the article makes various contributions. First, it adds further insights to recent research on the relations between algorithmic management and the labour process in e-commerce platforms fulfilment centres. Similarly to Amazon, the use of a software that allow the monitoring, tracking, evaluation and the speed of execution of virtually any operation in the warehouse, together with the implementation of devices able to control virtually every step of workers within the establishment, makes for a workplace that with its tightened levels of control and high productivity targets is lived by workers as a stressful, extremely tiring and health harmful everyday reality. This reality, however, is far from being unknown to workers who, despite the appearance of digitally mediated labour process, see in their team leaders or supervisors the flesh and bone people responsible for their 'toxic' environment. In this sense, the personification of management that takes place in the logistics warehouse could represent a first important element in forming future workers' grievances, organisation and collective action, in a potentially far more disruptive way if compared to other algorithmically managed workers and independently of the existence of trade unions and regulations. Second, and related to this latter aspect, it put into question approaches that looks at workplace changes in the digitalised environment from an institutionally driven perspective highlighting the role of formal trade unions in this. Contrary to the role and importance assigned to institutional regulatory frameworks in research on logistics in North European



countries, the existence of a strong system of industrial relations and workplace union recognition has not been a guarantee for better working conditions in the warehouse. Mercado Libre has been able to take advantage of the system of workers' representation legally in place to co-opt the union. This and the possibility of exploiting loopholes in the legal framework has been observed as well in Amazon in Germany, Italy and France, systems in which an extended protection of workers' rights is in place, opening a question about the real extent to which traditional forms of protection, regulation and trade unions representation can be effective in an increasingly digitalised working context. In this respect, if we consider how Mercado Libre operates, the company culture of being a new, hip and socially known firm, its practices of recruiting young educated workers, and its strategic bargaining with one union to forestall a more militant union's claim to the jurisdiction, tell a story of the company's ability to embed its business in specific local networks and structured relations and thus of making use, particularly in a devaluated and debt repayment subordinate economy as that of current Argentina, of labour market unbalances and of a politically weak State. Whether future workplace changes will impact positively on workers cannot thus be equated with more or less extended levels of regulations, but will be rather a variable of workers' on-the-ground struggles, within or beyond the existing regulations and forms of representation.

## Notes

- <sup>1</sup> 'Ecosistema Mercado Libre: soluciones para tu negocio'. *Mercaolibre.com.mx*, <https://vendedores.mercadolibre.com.mx/nota/ecosistema-mercado-libre-soluciones-para-tu-negocio>.
- <sup>2</sup> Rikap C., Graña J.M. and Fernández Franco S. 2020. 'Copy&Paste: de cómo Mercado Libre llegó a ser la empresa más importante de América Latina', *Ambito*, 10 August 2020, <https://www.ambito.com/opiniones/amazon/copypaste-como-mercado-libre-llego-ser-la-empresa-mas-importante-america-latina-n5123959>.
- <sup>3</sup> *El Cronista*. 2017. 'Galperin: "Con Mercado Libre hemos democratizado el comercio, ahora queremos democratizar el dinero"', <https://www.cronista.com/financiamiento/Galperin-Con-Mercado-Libre-hemos-democratizado-el-comercio-ahora-queremos-democratizar-el-dinero-20171128-0007.html>.
- <sup>4</sup> 'Historia de Mercado Libre: nuestros primeros pasos, nuestro recorrido', *Mercadolibre.com.ar*, <https://www.mercadolibre.com.ar/institucional/somos/historia-de-mercado-libre>.
- <sup>5</sup> Lafuente, E. 2020. 'Mercado Libre. Los motivos del conflicto sindical con Camioneros y los Moyano', *La Nación*, 17 July 2020, <https://www.lanacion.com.ar/economia/mercado-libre-los-motivos-del-conflicto-sindical-nid2399112>.
- <sup>6</sup> Infogremiales. 2021. 'La Justicia dio lugar a la cautelar que interpuso Carga y Descarga y dejó a Camioneros fuera de subsidiarias de Mercado Libre', 1 June 2021, <https://www.infogremiales.com.ar/la-justicia-dio-lugar-a-la-cautelar-que-interpuso-carga-y-descarga-y-dejo-a-camioneros-fuera-de-las-subsidiarias-de-mercado-libre/>.
- <sup>7</sup> 'Así' corriendo de arriba a abajo todo el día, yo terminaba el día, y no te miento, temblando. Pero yo en ese tiempo estaba contento, tenía un cuerpo atlético y entrenado y no me costaba tanto.' Interview with Pablo, checking and put-away worker, 19 September 2021.
- <sup>8</sup> 'Hay un control terrible de los tiempos, para todo tenes que fichar, hasta para ir al baño.' Interview with Fausto, picking worker, interviewed by *La Izquierda Diario*, available at <https://www.laizquierdadiario.com/Sebastian-despedido-de-Mercado-Libre-Le-diria-a-Marcos-Galperin-que-no-abuse-de-sus-empleados>

- <sup>9</sup> ‘Allí adentro parece ser **una dictadura te vigilan constantemente todo, todo queda registrado por mas que sea una equivocacion.**’ Interview with Pablo, checking and put-away worker, 19 September 2021.
- <sup>10</sup> ‘Desde mi parte siempre fue un tema de compañerismo.. si a mi me tocaba una cubeta de 100 auriculares que pesan como los 5 libros de otra cubeta, porque’ el limite de peso por cubeta es de 10 kilos, yo me ponía en la situación de la otra persona y le cambiaba la cubeta.’ Interview with Cecilia, put-away worker, 25 September 2021.
- <sup>11</sup> ‘Contrataneventuales de manera abysmal.’ Interview with Cecilia, put-away worker, 25 September 2021.
- <sup>12</sup> ‘Te echan y vas a la fosa comun.’ Interview with Clara, check-in heavy item worker, 25 September 2021.
- <sup>13</sup> ‘Hay un programa en la planta de ‘mejoras continuas’. Yo presente’ dos me las aporbaron pero ni asi’ quede.’ Interview with Camila, check-in heavy item worker, 25 September 2021.
- <sup>14</sup> ‘Es un trabajo que terminas roto físicamente.’ Interview with Fausto, picking worker, 20 September 2022.
- <sup>15</sup> ‘Mi primera experiencia en Meli fue maravillosa, yo estaba encantada. Despues en la segunda vuelta me di cuenta que no era tan asi’... y entendi’ porque’... había un enorme desgaste físico. Yo al mes tenia un dolor de espalda que no te puedo explicar, no podía caminar.’ Interview with Julia, put away worker, 27 September 2021.
- <sup>16</sup> ‘Mentalmente me tenia super estresado y amargado, físicamente muy lastimado y trabajar con dolor en un lugar que ya no te gusta pero que no te queda otra alternativa es una sensación de impotencia horrible.’ Interview with Pablo, checking and put-away worker, 19 September 2021.
- <sup>17</sup> ‘La empresa te endulza las orejas al entrar, te crees todo el cuento. Hice un arduo trabajo para quedar efectivo, reconocido por compañeros y superiores. Yo estaba contento porque iba a tener un trabajo en blanco, ya estaba salvado, pero no sabia en donde me estaba metiendo. Yo cuando entre’ a trabajar iba con la frente alta, super orgulloso pero a medida de que me di cuenta de lo que era ya no quería trabajar mas, me quería ir a mi casa, me iba llorando de la empresa.’ Interview with Pablo, checking and put-away worker, 19 September 2021.

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## Conflict of interest

The author declares that there is no conflict of interest.

## References

- Abilio, L.C., Grohmann, R. and Weiss, H.C. (2021) Struggles of delivery workers in Brazil: working conditions and collective organization during the pandemic, *Journal of Labor and Society*, 24(4): 598–616. doi: [10.1163/24714607-bja10012](https://doi.org/10.1163/24714607-bja10012)

- Alimahomed-Wilson, J. and Reese, E. (2021) Surveilling Amazon's warehouse workers: racism, retaliation, and worker resistance amid the pandemic, *Work in the Global Economy*, 1(1–2): 55–73. doi: [10.1332/273241721X16295348549014](https://doi.org/10.1332/273241721X16295348549014)
- Anwar, M.A. and Graham, M. (2019) Hidden transcripts of the gig economy: labour agency and the new art of resistance among African gig workers, *Environment and Planning A: Economy and Space*, 1–23.
- Barratt, T., Goods, C. and Veen, A. (2020) 'I'm my own boss...': active intermediation and 'entrepreneurial' worker agency in the Australian gig-economy, *Environment and Planning A: Economy and Space*.
- Bessa, I., Joyce, S., Neumann, D., Stuart, M., Trappmann, V. and Umney, C. (2022) A global analysis of worker protest in digital labour platforms, *ILO Working Paper 70*, Geneva: ILO.
- Boewe, J. and Schulten, J. (2020) Amazon strikes in Europe: seven years of industrial action, challenges and strategies, in J. Alimahomed-Wilson and E. Reese (eds) *The Cost of Free Shipping: Amazon in the Global Economy*, London: Pluto Press, pp 209–24.
- Burawoy, M. (1979) *Manufacturing Consent: Changes in the Labour Process under Monopoly Capitalism*, Chicago, IL: University of Chicago Press.
- Cant, C. and Woodcock, J. (2020) Fast food shutdown: from disorganisation to action in the service sector, *Capital & Class*, 44(4): 513–21.
- Castel-Branco, R. and Mapukata, S. (2021) Digitalisation and post-work utopias: a view from the global South, *South African Labour Bulletin*. <https://www.southafricanlabourbulletin.org.za/digitalisation-and-post-work-utopias-a-view-from-the-global-south/>
- Chinguno, C. (2019) Power dynamics in the gig/share economy: Uber and Bolt taxi platforms in Johannesburg, South Africa, *Labour, Capital and Society*, 49(2): 31–65.
- Delfanti, A. (2021a) Machinic dispossession and augmented despotism: digital work in an Amazon warehouse, *NewMedia & Society*, 23(1): 39–55.
- Delfanti, A. (2021b) *The Warehouse: Workers and Robots at Amazon*, London: Pluto Press.
- Dörflinger, N., Pulignano, V. and Vallas, S.P. (2021) Production regimes and class compromise among European warehouse workers, *Work and Occupations*, 48(2): 111–45.
- Elbert, R. and Negri, S. (2021) Delivery platform workers during Covid-19 pandemic in the city of Buenos Aires (Argentina): deepened precarity and workers' response in a context of epidemiological crisis, *Journal of Labor and Society*, 1–25. doi: [10.1163/24714607-bja10014](https://doi.org/10.1163/24714607-bja10014)
- Filipetto, S. and Pontoni, G. (2020) Relaciones laborales y economía de plataformas. El caso de MercadoLibre en la Argentina reciente, *Realidad Económica*, 50(335): 15–44.
- Ford, M. and Honan, V. (2019) The limits of mutual aid: emerging forms of collectivity among app-based transport workers in Indonesia, *Journal of Industrial Relations*, 61(4): 528–48. doi: [10.1177/0022185619839428](https://doi.org/10.1177/0022185619839428)
- Frey, B. (2020) Platform labor and in/formality: organization among motorcycle taxi drivers in Bandung, Indonesia, *Anthropology of Work Review*, 41(1): 36–49.
- Gandini, A. (2019) Labour process theory and the gig economy, *Human Relations*, 72(6): 1039–56. doi: [10.1177/0018726718790002](https://doi.org/10.1177/0018726718790002)
- Gutierrez Crocco, F. and Atzeni, M. (2022) The effects of the pandemic on gig economy couriers in Argentina and Chile: precarity, algorithmic control and mobilization, *International Labour Review*, 161(3): 441–61.
- Hatum, A. (2020) Mercado Libre: cómo se trabaja en la empresa más valiosa, *La Nación*. <https://www.lanacion.com.ar/lifestyle/mercado-libre-como-se-trabaja-empresa-mas-nid2452109/>

- Kassem, S. (2022) (Re)shaping Amazon labour struggles on both sides of the Atlantic: the power dynamics in Germany and the US amidst the pandemic, *Transfer: European Review of Labour and Research*, 28(4): 441–56. doi: [10.1177/10242589221149496](https://doi.org/10.1177/10242589221149496)
- Kornelakis, A. and Voskeritsian, H. (2018) Getting together or breaking apart? Trade union strategies, restructuring and contingent workers in Southern Europe, *Economic and Industrial Democracy*, 39(2): 357–75. doi: [10.1177/0143831X15627500](https://doi.org/10.1177/0143831X15627500)
- Llamosas, G. (2022) *Procesos de Organización y Movilización Sindical. Una Etnografía Sobre el Accionar del Sindicato de Camioneros*, Doctoral thesis in Anthropology, Buenos Aires: University of Buenos Aires.
- Massimo, F. (2021) A struggle for bodies and souls: Amazon management and union strategies in France and Italy, in J. Alimahomed-Wilson and E. Reese (eds) *The Cost of Free Shipping: Amazon in the Global Economy*, London: Pluto Press.
- O’Brady, S. (2021) Fighting precarious work with institutional power: union inclusion and its limits across spheres of action, *British Journal of Industrial Relations*, 59(4): 1084–107.
- Palermo, H. and Ventrici, P.B. (2020) Creativos, divertidos, emprendedores y meritocráticos El trabajo en contexto de las tecnologías de la información, *Cuadernos de Antropología Social*, (52): 37–53.
- Pulignano, V., Thompson, P. and Doerflinger, N. (2020) Workplace change and institutional experimentation: a case study of service-sector work in Europe, *Transfer: European Review of Labour and Research*, 26(2): 175–87. doi: [10.1177/1024258920918483](https://doi.org/10.1177/1024258920918483)
- Pulignano, V., Thompson, P. and Doerflinger, N. (2022) When accumulation pressures meet regulatory institutions: a comparison in logistics, *European Journal of Industrial Relations*, 28(32): 273–94. doi: [10.1177/09596801211073599](https://doi.org/10.1177/09596801211073599)
- Rikap, C. (2020) Amazon: a story of accumulation through intellectual rentiership and predation, *Competition & Change*, 26(3–4): 436–66.
- Schaupp, S. (2021) Cybernetic proletarianization: spirals of devaluation and conflict in digitalized production, *Capital & Class*, 46(1): 11–31.
- Streeck, W. (1997) Beneficial constraints: on the economic limits of rational voluntarism, in J. Hollingsworth and R. Boyer (eds) *Contemporary Capitalism*, Cambridge: Cambridge University Press, pp 197–239.
- Tassinari, A. and Maccarrone, V. (2020) Riders on the storm: workplace solidarity among gig economy couriers in Italy and the UK, *Work, Employment and Society*, 34(1): 35–54. doi: [10.1177/0950017019862954](https://doi.org/10.1177/0950017019862954)
- Thompson, P. and Laaser, K. (2021) Beyond technological determinism: revitalising labour process analyses of technology, capital and labour, *Work in the Global Economy*, 1(1–2): 139–59. doi: [10.1332/273241721X16276384832119](https://doi.org/10.1332/273241721X16276384832119)
- Veen, A., Barratt, T. and Goods, C. (2020) Platform-capital’s ‘app-etite’ for control: a labour process analysis of food-delivery work in Australia, *Work, Employment and Society*, 34(3): 388–406. doi: [10.1177/0950017019836911](https://doi.org/10.1177/0950017019836911)
- Webster, E. and Masikane, F. (2021) *‘I Just Want to Survive’: A Comparative Study of Food Courier Riders in Three African Cities*, December. Report of FES and SCIS. Johannesburg: University of Witwatersrand.
- Wood, A.J., Graham, M., Lehdonvirta, V. and Hjorth, I. (2019) Good gig, bad gig: autonomy and algorithmic control in the global gig economy, *Work, Employment and Society*, 33(1): 56–75. doi: [10.1177/0950017018785616](https://doi.org/10.1177/0950017018785616)