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## **WORKER SOLIDARITY AMONG GIG AND PRECARIOUS WORKERS**

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### **1. Introduction**

The rise of the gig economy has brought once again to the fore the fact that a sizeable share of workers in the North and South of the world experience precarious working conditions.

Indeed, the gig economy can be defined as the last frontier of precariousness (Tassinari and Maccarrone 2020; see also De Stefano 2016), as it is characterised by a mix of old exploitative practices, such as the use of bogus self-employment and of piecework, as well as by new technologies of workers' control through algorithmic surveillance and management (Moore et-al. 2017; Shapiro 2018; Veen et-al. 2020).

Precarious workers have for long been considered to be inherently hard to organise due to structural obstacles to mobilisation such as high turnover rates, weak employment protection legislation, and low union presence. For workers in the gig economy, one could expect this to be even more the case, as the issues facing precarious workers are augmented by new forms of managerial control facilitated by digital technologies (e.g. Veen et-al. 2020). Yet in recent years, we have observed notable examples of mobilisations of gig workers all over the world, both in the Global North and in the Global South (Chen 2018; Ford and Honan 2019; Tassinari and Maccarrone 2020).

How can one explain the emergence of workers' solidarity even in the unfavourable context of the gig economy? This chapter aims to address this research question, exploring the triggers and the obstacles to the emergence of solidarity among gig economy workers.

Grounding our analysis in labour process theory (LPT) and referring in particular to Atzeni's (2010) conceptualisation of workers' solidarity, throughout the chapter we provide examples of how the inherent contradictions of the labour process in the gig economy provide the potential for the emergence of solidarity and resistance even in the 'brave new world' of the platform economy and of the mechanisms through which gig workers solidarities are forged, enacted, and contested across different social contexts.

The chapter is structured as follows. In the first section, we provide a definition of workers' solidarity within the capitalist labour process. In the second, we describe work in the gig economy through the lenses of labour

process theory. In the third, we explain the emergence of solidarity and resistance in the gig economy, drawing empirical illustrations from the growing literature on the topic. The latter section concludes.

## **2. Workers' solidarity within the capitalist labour process**

How do we understand the emergence of solidarity among gig and precarious workers? Much of the literature on precarious workers' organising has adopted a top-down perspective (Atzeni, 2021), focusing on the strategies followed by established unions for a greater inclusion of precarious workers. Yet in more recent years an increasing number of scholars have adopted a bottom-up approach (ibid.) which, starting from concrete cases of precarious workers' mobilisation, has analysed processes of organisation and emergence of solidarity, which often happened outside the traditional union form (Però 2019 ; Rizzo and Atzeni 2020 ). This has been the case also in the gig economy, where the first instances of mobilisation have been led by selforganised workers' collectives and rank-and-file unions (Tassinari and Maccarrone 2020), with more established trade unions starting to catch up only in recent years.

Accordingly, we also propose to adopt a bottom-up approach to the study of solidarity among gig workers. Our conceptualisation of workers' solidarity (cf. Tassinari and Maccarrone 2020 : 39) defines it as 'a condition whereby workers develop collective feelings of reciprocity and responsibility towards one another on the basis of an awareness of their ultimately shared interests and purpose\_— and are prepared to act upon such feelings through solidaristic actions'.

As Morgan and Pulignano (2020: 20) point out, solidarity is, therefore, a form of identification that emerges from work, but that can be articulated at different levels of analysis: from the workplace level to the organisational level of collective action (through trade unions or other organisational forms) up to broader forms of class and societal solidarity embedded in wider institutional arrangements. The level of the workplace appears to be the most appropriate to start from to study the consolidation of solidarity among gig workers, which is\_— as of yet\_— an emerging phenomenon, mostly localised and not yet comprehensively articulated in broader, encompassing organisational structures.

Our bottom-up conceptualisation of solidarity starts with the observation that, as noted by Atzeni (2010), the emergence of workers' solidarity finds its roots in material conditions and is inextricably related to the capitalist labour process and its inherent contradictions. Within the perspective of labour process theory (Braverman 1974), the process of extraction of surplus value and the exercise of managerial control over labour is seen as leading to the emergence of conflicts between workers and management that manifest themselves at the point of production through various forms\_— from individual forms of organisational misbehaviour to shared grievances. These shared experiences that workers have of the capitalist labour process, in their day-to-day activities at the workplace, provide the basis for the consolidation of feelings of collective identity, reciprocity, and responsibility towards one another. Atzeni (2010) defines these feelings

as forms of *embryonic* solidarity, which in turn constitute the basis for the emergence of *active* solidarity, which can manifest itself through various forms of collective action (ibid.).

Indeed, although collective mobilisation is arguably the most powerful expression of workers' solidarity, it is only the last step of a process through which workers come to recognise their shared condition ( Hyman 1999 ; D'Art and Turner 2002 ) and decide to act upon it: 'it is because a form of solidarity pre-exists that other organizational developments can follow' ( Atzeni, 2010 : 28). The process of formation and emergence of active solidarity can thus be defined, following Martinez Lucio and Stewart (1997), as a 'process whereby workers, by becoming aware of the collective nature of the labour process, develop consciousness of their shared interests and come to act collectively on that sense of unity and mutual dependency, in opposition to management, overcoming the apparent individualisation of their day-to-day work experiences' (quoted in Tassinari and Maccarrone 2020 : 39).

It is by now well established in the literature that the different characteristics of the labour process, ranging from work organisation to the regime of control to which workers are subject, affect the development of workers' solidarity, the process through which such recognition of shared conditions can take place and the form in which solidaristic attachments become manifested (Hodson 1997 ; Hodson et-al. 1993 ; Vallas 1987). Broader features of the organisational and institutional environment, in turn, can also affect the consolidation of solidaristic attachments at the organisational and societal level (Morgan and Pulignano 2020).

In turn, solidarity can manifest itself in a myriad of forms— ranging from day-to-day acts and behaviours of reciprocity and mutual support at the workplace level to forms of more or less visible collective action that can take diverse manifestations in both physical and virtual formats. To some extent, as noted by Wood et-al. (2018 : 96), 'worker identities and self-organisation are shaped by the manner in which the production process is structured'. Yet in line with the insights of Fantasia (1988 ) and Atzeni (2010 ), we do not assume a deterministic relation between the labour process and the emergence of workers' solidarity. Instead, 'the development of solidarity is conceptualised as a historically specific, evolving process, underpinned by workers' agential practices, where different context-specific factors can combine to explain its emergence and manifestation' (Tassinari and Maccarrone, 2020 : 40) – as well as its possible non manifestation.

In the next section, we thus analyse the features of the labour process and of employment relations in the gig economy, which will allow us in turn to highlight the constraints and the potential triggers for the emergence of workers' solidarity; and we then move on to analyse the different concrete forms that manifestations of solidarity have taken thus far among gig workers across the globe.

### **3. Labour process in the gig economy**

The term 'gig economy' covers a broad array of work activities and different types of platforms. Whereas scholars have proposed several typologies to differentiate among digital work platforms, the gig economy can be understood as a 'continuum' (Heeks 2017 ; Gandini 2019 ) which ranges from work activities which are fully conducted online ('digital gig economy', in Heeks' words) to activities which are contracted out online but are tied to a physical location ('physical gig economy'). The digital gig economy includes microwork platforms, such as Amazon Mechanical Turk, where workers complete basic tasks such as data entry, as well as platforms such as Upwork, which intermediates more complex online freelancing activities such as web design or translation. Here, work can be contracted out potentially on a global basis as it is not tied to a specific physical location (De Stefano 2016). Instead, the physical gig economy includes platforms which intermediate locally based work activities, such as transport (Uber, Didi), delivery (Deliveroo, Glovo, Uber Eats), and cleaning or running errands (Handy, TaskRabbit) (De Stefano 2016).

Despite variations in work activities within the gig economy, one can identify some broad similarities in terms of the labour process (Gandini, 2019), which in turn create potential triggers as well as obstacles for the emergence of solidarity. The first and most evident common trait in terms of work organisation in the gig economy is the decentralisation of the point of production – that is, 'that specifically designed, clearly delimited environment whereby the transformative process of labour normally takes place' (Gandini, 2019 : 1044). Indeed, whereas traditional workplaces such as factories and offices are still characterised by a physical compresence of workers (albeit this might change following the COVID-19 pandemic), platforms in both the digital and physical gig economy seek to individualise work activity, managing a geographically dispersed workforce. This applies to both the digital gig economy, where work activity is fully decentralised, but also to the location-based gig economy, as workers operate in a spatially dispersed workplace (the city itself) and interact primarily with the platform which allocates them their gigs.

Thus, as Gandini (2019 : 1045) points out, in the case of the gig economy, the point of production is the *platform itself* : 'platforms act as the milieu within which the capital\_– labour relation is enacted upon workers\_.\_.\_ the platform represents the place whereby the social processes of production are put under logics of managerialization and work organization within a single, clearly delimited environment'.

The individualisation of the work activity is further reinforced by the individualisation of employment relations which most platforms seek to apply. Bar a few exceptions, driven by legal challenges brought forward by workers and trade unions in more recent years, most of the platforms treat workers as self-employed or independent contractors (with different contractual models between countries depending on legislation). Moreover, workers usually employ their own means of production (laptops, smartphones, cars, bikes, etc.) to complete the gigs. This allows companies to minimise labour costs and maximise work flexibility: 'workers are provided "just-in-time" and compensated on a "pay-as-you-go" basis' (De Stefano 2016 : 4). In turn, this means that gig workers do not usually enjoy traditional labour rights, such as sick or

holiday pay, or the payment of a minimum wage. It also implies that normally they do not have access to traditional collective bargaining channels, nor are they entitled to union representation.

Given these features of the labour process, the gig economy is characterised by a high structural turnover and relatively high substitutability of workers. Moreover, the workforce tends to be segmented according to the attachment to the job, between a small 'core' relying on gig work as a primary income source and a larger margin participating sporadically (Broughton et al., 2018; Wu et al. 2019). Depending on the type of platform, segmentation and hierarchies within the gig workforce can also emerge on the basis of nationality, ethnicity, skill level, and another socio-cultural identity, such as gender and migration status (van Doorn 2017; Anwar and Graham 2020).

Another broad commonality in terms of the labour process in the gig economy is the regime of control adopted by platforms. Even if the point of production is decentralised, platforms maintain a high degree of control on gig workers. This happens through various forms of 'techno-normative' control (Gandini, 2019), which ensure the management of a geographically dispersed workforce. Workers' performance is rated through customers' feedback and, in turn, affects the likelihood of receiving further gigs (Anwar and Graham 2020). In the case of platforms such as Uber, falling below a certain threshold of customers' evaluation can lead to dismissal through the deactivation of a driver's account (Wu et al. 2019). Platforms can also employ other quantitative metrics to evaluate workers' performance— such as the number of gigs completed or the average time needed to complete a gig— or even engage in direct live monitoring of performance— for example, by taking automatic screenshots of gig workers' screens to track the use of working time (Anwar and Graham 2020). Some platforms use such metrics explicitly to rank workers for the assignment of new gigs (Griesbach et al. 2019; Heiland 2021). Opaque algorithmic methods are also often used by certain platforms— especially in the location-based gig economy— to unilaterally set the pricing of gigs, leading to fluctuating and unpredictable levels of remuneration (Griesbach et al. 2019; Lei 2021). Even when metrics are not used explicitly, workers experience a significant degree of asymmetric information vis-à-vis platforms, as companies usually maintain secrecy on the mechanisms used for the allocations of gigs and for performance management more generally (Shapiro 2018; Veen et al. 2020), and are subject to frequent, unilateral changes in contract terms or platform rules (Lei 2021).

Beyond opaque algorithmic management methods (Veen et al. 2020), platforms also employ gamification techniques (Gandini 2019) to extract more effort from workers, challenging them to constantly ameliorate their personal best. Other strategies of labour control within the gig economy include the use of financial incentives and nudges to ensure enough supply of labour in specific conditions. Examples include Uber's 'surge pricing' system to ensure the presence of drivers in certain areas (Gandini 2019; Wu et al. 2019) or the financial incentives provided by food delivery platforms to ensure deliveries even in rough meteorological conditions (Heiland 2021) or during strikes (Marrone and Finotto 2019). In turn, financial incentives can be

directly linked to metrics measuring workers' performances (Wu et-al. 2019), confirming the insight of LPT that capital control practices are complementary and interlinked (Veen et-al. 2020; Heiland 2021 ).

The features of the labour process in the gig economy shape the possibility for emergence of workers' solidarity. The decentralisation of the point of production pursued by platforms would lead one to expect that the basis for the emergence of solidarity is weaker than in traditional workplaces still characterised by workers' physical compresence, 'where the "collective" nature of the labour process may be more easily apparent' (Tassinari and Maccarrone 2020 : 40). Indeed, as work activity in the gig economy is individualised and geographically dispersed, 'the reality of collective participation in the labour process' (Martinez Lucio and Stewart 1997: 53) might be obfuscated, hindering the emergence of solidarity among workers. The fact that often workers compete for the same gig might pose a further obstacle to the development of workers' awareness of their shared interests, especially if the labour market is tight and the supply of gig workers exceeds demands, thus heightening competition and substitutability (Heiland 2021). This is further reinforced by the structurally high turnover and internal segmentation of the workforce in terms of the attachment to the job. Moreover, the various forms of techno-normative control that we briefly described might inhibit workers' attitude towards collective action for fear of retribution. Finally, the emergence of active solidarity is further deterred by the fact that classification of gig workers as independent contractors means that their protection from dismissal is lower and that they have less access to traditional channels of workers' voice such as unions. The adoption of self-employment contractual arrangements can also shape the identities that gig workers embrace, possibly reinforcing the development of entrepreneurial-freelancer identities based on discourses of flexibility and autonomy that can potentially hinder the consolidation of collective 'worker identities' and make the appeal of 'traditional' forms of labour organisation, such as unions, harder to consolidate, especially— but not exclusively— among platform-based freelancers ( Wood et-al. 2018 ; Barrat et-al. 2020 ).

Despite the obstacles posed to the emergence of workers' solidarity, the labour process in the gig economy is also characterised by inherent contradictions which, as we will show in the next section, can lead workers to recognise their shared condition and interests, engage in solidaristic behaviours, and consolidate a sense of antagonism against management, leading to the emergence of active solidarity and cohesive action. Tassinari and Maccarrone (2020) identified two main contradictions which acted as triggers for the emergence of workers' solidarity in the gig economy. The first arises from the process of valorisation adopted by platforms, which aims to minimise labour costs and maximise work flexibility: grievances over decreasing remuneration, working time, and insecurity perceived as unjust can act as a powerful source of antagonism in the labour process (cf. also Griesbach et-al. 2019). The second contradiction is related to workers' experience of asymmetric information, opaque managerial control and clients' arbitrary behaviour facilitated by algorithmic management and by untransparent rating mechanisms (Shapiro 2018 ; Wood et-al. 2018 ;

Veen et-al. 2020 ). As Lei (2021) points out, when direct supervisory relationships are absent from the platform architecture, the managerial figure is 'invisibilised' via algorithmic management, and platforms rely on unilateral rule changes without channels of direct communication to explain them or enforce them, this can lead to more acute grievances, as the perception of arbitrary control and despotism experienced by couriers is intensified. In short, the more blatant, recognisable, and unbridled the arbitrariness and unilateralism of platforms' modes of technical and legal operation, the greater will be workers' feelings of injustice and the chances of collective contention emerging (Lei 2021).

Notwithstanding these 'structural' triggers of solidarity, other more contingent factors relating to the specific 'socio-technical structures' (Anwar and Graham 2020: 1272) or 'platform architectures' (Lei 2021 ) employed by different platforms, to workers' identities and backgrounds, and to features of the local context can either facilitate or shape in different ways the emergences of solidarity. In the next section, we explore more in depth these factors, drawing empirical illustrations from the growing literature on the topic.

#### **4. Solidarity and resistance in the gig economy**

Despite the constraints arising from the various features of the gig economy labour process discussed previously, over the last few years various manifestations of workers' solidarity and overt resistance in different segments of the gig economy have nonetheless emerged with increasing frequency and growing visibility all over the world. Such visible and collective forms of solidaristic behaviour among gig workers, more common in the location-based gig economy, coexist with the omnipresence of less visible or altogether 'hidden' form of labour agency and solidaristic attachments which characterise especially the diverse segments of the online gig economy. We now discuss these diverse forms, mapping them along a continuum of visibility, and highlight both the common mechanisms underpinning their emergence, relating them to the main contradictions in the gig economy labour process which we identified earlier, and the differences related to both local context and features of the platforms' socio-technical structures.

The most visible forms of workers' solidarity in the gig economy have been strikes and physical protests in the location-based gig economy, especially within the food delivery industry and in the ride-hailing industry. Both in the Global South and Global North, since around 2015, such episodes of labour contention where gig workers explicitly target platforms expressing grievances towards their practices of contracting, work organisation and remuneration have become increasingly commonplace. While it is not possible to conduct a comprehensive survey here, episodes of mass contention targeting food delivery platforms and ride-hailing platforms have been well documented across all over the world (Chen 2018 ; Ford and Honan 2019 ; Wells et\_al. 2021 ; Tassinari and Maccarrone 2020 ). These expressions of collective active solidarity usually entail both the exercise of gig workers' structural and symbolic power. Gig workers often engage in the collective withdrawal of their labour from the platforms through mass log-outs from the apps, with a goal to inflict

disruption to service provision, and/or orchestrate public protests targeting the platforms which can manifest themselves both as physical blockades in the urban space, aimed at gaining visibility and gathering support from the public and from local policy/lawmakers, as well as the mass targeting of the companies in the online sphere – e.g. through ‘shitstorming’ of the company’s social media presence or coordinated campaigns on social media.

Besides the specific dynamics of contention, what is most relevant for our purposes is to highlight the common processes through which embryonic solidaristic attachments are consolidated and eventually result in the expression of active solidarity. As highlighted in the previous section, different features of the labour process provided trigger points (O’Sullivan and Turner, 2013) for the emergence of workers’ cohesive action. A unilateral change in the company’s pay strategy, entailing the move from an hourly salary to a piecemeal pay to shift the enterprise risk onto workers, was the leading motivation for the emergence of the first strikes in the European gig economy. This was the case in the mobilisation of Deliveroo riders in the UK in the summer of 2016, soon followed by their colleagues in Turin, Italy (Tassinari and Maccarrone, 2020). The unilateral reduction in fares for drivers was also the main trigger for the autonomous organising process of Uber drivers in London from 2014 onwards (Aslam and Woodcock 2020).

Although pay is obviously a key issue for gig workers, arduous working conditions and concerns over personal safety were also powerful drivers of mobilisation for location-based gig workers. The first strike of food delivery couriers in Bologna, Italy, took place in November 2017, when riders were asked to continue working even under harsh weather conditions following a snowstorm (Marrone and Finotto, 2019). In their protests, the workers subsequently highlighted the lack of a proper accident insurance, in turn linked to their precarious contracts.

In Dublin, the first mobilisation of food couriers in 2019 also took place over concerns of personal safety, after many of them reported of having being attacked by teenage gangs while doing their job. Health and safety were also a key concern for couriers during the COVID-19 pandemic, as delivery of goods was among those activities which were deemed as essential and thus continued uninterrupted. Leveraging both legal challenges and mobilisations, during the pandemic in Italy food delivery workers have been able to obtain personal protective equipment from the platforms and public authorities, as well as some guarantee of sick pay in case of illness or mandatory quarantine (Maccarrone and Tassinari, 2021).

Alongside decreasing pay and concerns about health and safety, the second main ‘contradiction’ in the gig economy labour process which facilitated the emergence of collective contention relates to features of the ‘platform architecture’ (Lei 2021) and of the model of work organisation adopted by location-based platforms, which in turn shapes workers’ experience of asymmetric information and opaque managerial control. An important aspect of platform architecture which impacts the emergence of solidarity is the extent

to which specific features of the platform architecture of location-based platforms can lead to the perception of working conditions as unfair and exploitative and to the attribution of such grievances to the platform.

In a research on labour contestation in delivery platforms in China, Lei (2021) finds that the managerial and legal model of operation adopted by gig platforms— which involves surrendering most of the supervisory power of management personnel over couriers, relying instead on automated algorithmic management so as to eschew having to adopt ‘traditional’ employment relations arrangements – acts as a catalyst for the emergence of solidarity, otherwise absent in other platforms that adopt more traditional models of supervisory relationships. This is because the absence of ‘traditional’ managerial arrangements and the frequent unilateral changes to platforms rules, not embedded in broader legal frameworks recognised as legitimate and predictable, exposed couriers to unilateral relationships of power and control that were experienced as arbitrary, despotic, and ultimately unfair, without being embedded and stabilised by any ‘hegemonic’ means of control that could stabilise discontent. The mutual reinforcement of these different despotic dimensions of control, in turn, increased the likelihood of moments of escalation and solidarity to emerge among workers.

While different features of and contradictions inherent in the labour process help to explain the emergence of workers’ solidarity in the gig economy, various factors pertaining to the organisational and social context within which platform workers are embedded and to their own agential and social practices have also facilitated the consolidation of solidaristic attachments. Diverse studies of gig workers mobilisation (cf. Marrone and Finotto 2019; Tassinari and Maccarrone 2020 ; Heiland and Schaupp 2021 ; Lei 2021 ; Wells et al. 2021 ) highlight, for instance, the important role played by ‘free spaces’ (Polletta, 1999 ) – whether physical or online— where gig workers can air their individual grievances with one another, recognise their shared nature and engage in a process of collective framing of discontent and injustice, and come to attribute such emerging discontent to the platform. Such meeting spaces can be either physical locations in the urban space, such as the common waiting points (squares, restaurants, parking spots) where workers wait for their gigs— be they deliveries or rides— to come in (Tassinari and Maccarrone 2020 ; Heiland and Schaupp 2021 ; Wells et-al. 2021 ) or locations such as bike repair clinics or after-work socialising spaces ( Marrone and Finotto 2019 ). Alternatively, they can be online spaces, such as chat groups on WhatsApp or other social media, often— but not exclusively— initially organised by the platforms themselves to coordinate the work effort and then repurposed by the workers to have channels of autonomous communication (Aslam and Woodcock 2020 ; Mañ e 2020 ; Tassinari and Maccarrone 2020 ; Heiland and Schaupp 2021).

These physical or virtual meeting spaces are important in the process of solidarity development, as they act as collective spaces, free from the managerial gaze, where the workers can initially overcome their condition of seeming individualisation and engage in spontaneous interactions that can facilitate the emergence of feelings of reciprocity and the consolidation of shared identities and grievances. Eventually, such virtual or

physical meeting sites also usually acquire an important logistical-practical role in the concrete organisation of the first acts of protests and collective action.

Location-based platforms also present other features that arguably facilitate the consolidation of collective active solidarity. First, Tassinari and Maccarrone (2020) highlight that the chances for workers' physical compresence afforded by location-based platforms allow workers easier access to 'free spaces' where they can discuss, meet, and recognise each other's shared grievances and develop mutual feelings of reciprocity and community that lead to the emergence of solidaristic behaviours. These findings were echoed by Heiland and Schaupp (2021)'s study on the development of 'cultures of solidarity' (Fantasia 1988) among food delivery workers in Germany and by Wells et al.'s (2021) findings about the importance of airport parking lots as spaces facilitating the breaking of socio-spatial atomisation among Uber drivers in Washington, DC, and enabling the orchestration of moments of collective agency such as, in this case, gaming of Uber's surge pricing system. Physical co-presence in urban spaces can, in turn, facilitate the consolidation of solidarity by increasing the visibility of moments of contention— thus compelling other workers to join in— and facilitating the forging of links with other segments of the precarious workforce, as witnessed for example in the cases of gig economy riders' mobilisation in Italy and the UK (Tassinari and Maccarrone, 2020 ) or in the alliances between Uber drivers,

Deliveroo riders, and other urban precarious workers organised through grassroots unions forged in London (Aslam and Woodcock 2020). Second, most location-based platforms act as de facto employer vis-à-vis their workforce with sole responsibility for the setting of remuneration for gigs and for the disbursement of payments; in the online gig economy, platforms act more as intermediaries between a dispersed workforce and multitude of clients ultimately responsible for setting rates. This implies that in the location-based gig economy, the platform architecture facilitates an easier process of attribution of grievances to the platform and the identification of protest targets, harder to achieve in the context of online gig work platforms.

Besides these most visible instances of collective contention, the extant research has also highlighted that the expression of solidarity among gig workers can take multiple, albeit less visible, forms. In the context of location-based platforms, researchers have documented that active solidarity can be expressed among gig workers through a myriad of behaviours of mutual support that, while not directly antagonistic, embody solidaristic attachments among workers.

These can range from sharing material resources— such as food, spare tires, and cigarettes—in order to make the work activity less tedious and more bearable, to helping each other out in case of injury or accidents, to sharing information and advice on how to navigate and possibly game the platform's operations and algorithms to the workers' advantage (Chen 2018; Marrone and Finotto 2019; Tassinari and Maccarrone 2020). Similar solidaristic behaviours have also been widely documented in the remote/online gig economy

(Anwar and Graham 2020; Wood et al. 2018; Wood et al. 2019 ; Wood and Lehdonvirta 2021 ). These studies have documented how, despite the lack of opportunities for physical compresence, online gig workers engage in solidaristic behaviours through various online channels such as forums, chat rooms, and groups on social media. These spaces\_– which Wood and Lehdonvirta (2021), building on Korczynski (2003), conceptualise as ‘digital communities of coping’ – serve as important fora to structure remote gig workers’ communications and can give them a chance to forge community relations and build collective identity ( Anwar and Graham 2020).

The interactions that take place in such online spaces and the behaviours that they facilitate can be described as solidaristic, insofar as they have been found to often revolve around the provision of community support, mutual help, and information sharing to navigate the workings of the platform and cope with the various forms of insecurity generated by platform work (Wood et al. 2018 ; Anwar and Graham 2020 ; Ma\_ e 2020 ). It is especially interesting to observe that such solidaristic coping behaviours emerge even among workforces characterised by high levels of competition, oversupply of workers, and the widespread presence of ‘freelancer identities’, such as the online freelancers studied by Anwar and Graham (2020 ) and Wood et al. (2018 ). The evidence as to whether such online spaces can ultimately facilitate the emergence of more visible forms of solidaristic action and facilitate collective labour contention is, thus far, more limited. While Maffie (2020) finds that online networks of Uber drivers do shape positively workers’ attitudes towards unionisation, Wells et al. (2021) find that the potential of online forums and social media networks, in and of themselves, to facilitate collective contention is more limited. Both Anwar and Graham (2020) and Wood et al. (2018) also find that, so far, the forms of resistance facilitated by such online spaces among remote gig workers are mostly individual and do not *directly* embody antagonism or challenge platform power. However, digital communities of coping could potentially provide a breeding ground from which more visible forms of solidarity and consciousness for collective action could potentially emerge, especially if organised labour actors were to tap into the new workers’ identities and grievances that emerge through such fora (Anwar and Graham 2020). Overall, the emergence of such solidaristic ties even among dispersed workers in online fora testifies that the process of consolidation of workers’ solidarity is not overdetermined by structural obstacles, however hostile the platform architecture might be, but is an ultimately open-ended, agential process.

Finally, another form of workers’ solidarity which has emerged over recent years and which might have interesting consequences for the future of the platform economy is the rise of worker-led cooperative platforms. In countries such as France, Italy and Spain, former couriers of some of the largest food delivery firms have set up their own delivery platforms with the stated aim of ensuring fair wages and working conditions (O’ Brien, 2020; Nardi, 2021). While it remains to be seen whether these worker-led platforms will be able to thrive, in a market mainly based on competition on labour costs (Tassinari and Maccarrone, 2020),

it is interesting to note that these initiatives are born directly as a workers' solidaristic reaction to their experience of exploitative working conditions.

## **5. Conclusion**

In this chapter, we have argued that the emergence of workers' solidarity among precarious workers in the gig economy finds its roots in the contradictions inherent in the labour process of the gig economy, which, despite the many obstacles, surface as antagonisms at the point of production. Through various social mechanisms of collective identification, such solidarity become articulated in a myriad of more or less visible solidaristic behaviours—ranging from covert individual acts of resistance to mutual help and support and to overt collective action and contestation. Building on a growing body of literature on the dynamics of workers' solidarity, resistance, and collective action, we have shown how workers' solidarity can emerge in different forms and through varied channels, both in the location-based gig economy and in the online/ remote gig economy, despite the various obstacles that the platform architecture (Lei, 2021 ) poses to the consolidation of solidaristic attachments. These insights underscore the idea that, counter to notions of pessimistic techno-determinism, worker agency is possible even in hostile contexts characterised by socio-spatial individualisation, algorithmic control, and unilateral and arguably despotic approaches to the management of employment relations.

Our contribution has been mostly focused on identifying the common mechanisms which underscore the emergence of workers' solidarity among gig workers in diverse contexts. At the same time, it must be highlighted that the emergence of workers' solidarity in the gig economy is neither a seamless nor a homogenous process but is significantly shaped by structural factors, such as the features of platform architecture design and the specific configurations of control that they adopt, as well as by features of the local labour markets in which they are embedded; by social factors, such as the socio-cultural identities of gig workers and the political and social dynamics in the communities and localities in which they are embedded; and by institutional factors, such as the institutional framework of labour relations, labour and product market regulation, and the broader workforce control regime, including the migration control regime, within which platforms are embedded.

Fruitful avenues for future research can be focused on investigating further the spatial and temporal nuances of solidarity manifestation and how these dynamics are mediated by specific geographical, social, and institutional contexts. For now, it is important to underscore that the episodes of gig workers' solidarity, which have manifested themselves through collective action across the world have started to bear important results. First, they have contributed to raising considerably public attention and awareness about the exploitative nature of gig work, making the issue politically salient in many countries and creating the conditions for public, broader challenges to platform power and for the forging of broader solidaristic

relationships with other segments of the precarious workforce and of organised labour – including both established and rank-and-file unions. In many countries, gig workers’ protests have occasionally also resulted in changes to the regulatory framework to provide better employment rights and protections. Thus far, these concrete results of re-regulation have, as of yet, mostly been limited to location-based gig platforms with great public visibility, such as ride-hailing platforms and delivery platforms. Nonetheless, the examples of workers’ solidarity which we have provided throughout this chapter can constitute a basis for further improvements of workers’ conditions, even in the ‘brave new world’ of the gig economy.

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