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Wood, Alexander; Lehdonvirta, Vili

DOI:

[10.1093/ser/mwab016](https://doi.org/10.1093/ser/mwab016)

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Document Version

Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Wood, A & Lehdonvirta, V 2021, 'Antagonism beyond employment: how the 'subordinated agency' of labour platforms generates conflict in the remote gig economy', *Socio-Economic Review*, vol. 19, no. 4, mwab016, pp. 1369-1396. <https://doi.org/10.1093/ser/mwab016>

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Article

Antagonism beyond employment: how the ‘subordinated agency’ of labour platforms generates conflict in the remote gig economy

Alex J. Wood ^{1,*} and Vili Lehdonvirta ²

¹Department of Management, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

²Oxford Internet Institute, University of Oxford, 1 St Giles’, Oxford OX1 3JS, UK

*Correspondence: a.wood@bham.ac.uk

Abstract

This article investigates why gig economy workers who see themselves as self-employed freelancers also engage in collective action traditionally associated with regular employment. Using ethnographic evidence on the remote gig economy in North America, the UK and the Philippines, we argue that labour platforms increase the agency of workers to contract with clients and thus reduce the risk of false self-employment in terms of the worker–client relationship. However, in doing so, platforms create a new source of subordination to the platform itself. We term this phenomenon ‘subordinated agency’, and demonstrate that it entails a ‘structured antagonism’ with platforms that manifests in three areas: fees, competition and worker voice mechanisms. Subordinated agency creates worker desire for representation, greater voice and even unionization towards the platform, while preserving entrepreneurial attitudes towards clients.

Key words: employee voice, flexibility, industrial relations, technology, trade unions

JEL classification: J530 industrial relations, labor–management relations, union, union–management relations, working conditions

1. Introduction: protesting against platforms

Over the past decade, a new type of self-employment known as the gig economy has emerged and grown dramatically around the world (Kässi and Lehdonvirta, 2018; Pesole *et al.*, 2018). It can be divided into local gig work, which includes transport and delivery work, and remote gig work, which consists of tasks that can be delivered over the Internet, such as data entry, graphic design and content writing. Remote gig work can be further

broken down into micro-work (or digital piecework; Lehdonvirta, 2018) and ‘macro-work’ consisting of larger projects (Wood *et al.*, 2019a). While news coverage has tended to focus on protests by local gig workers, academic research has highlighted the potential for remote gig economy labour platforms, such as Amazon Mechanical Turk, Upwork and Fiverr, to become targets for worker collective action (Irani and Silberman, 2013; Salehi *et al.*, 2015; Lehdonvirta, 2016; Wood *et al.*, 2018; Johnston and Land-Kazlauskas, 2019; Panteli *et al.*, 2020).

That workers in the remote gig economy—also known as crowdwork or online freelancing—should engage in protests against platforms poses a theoretical puzzle. Sociologists and employment relations scholars often take the employment relationship and the structured antagonism it entails as a starting point for explaining worker collective action (Edwards, 1986; Kelly, 1998; Watson, 2008; Tapia *et al.*, 2015). But remote gig work platforms classify their workforces as self-employed independent freelancers (Wood *et al.*, 2019b). Self-employment tends to be seen in the scholarly literature as a purely market relationship in which collective action is unlikely (Sisson, 2008). Indeed, trade union membership among the self-employed has tended to be low (Brock, 2019; Jansen, 2020), and where it has existed, focused on the provision of training and labour market information, and on influencing occupation-specific legal regulations (Heery *et al.*, 2004; Heery, 2009). Yet in the remote gig economy, self-employed freelancers are engaging in protest.

In the local gig economy, protests by workers using platforms such as Uber, Deliveroo and Foodora (Cant, 2019; Aslam and Woodcock, 2020; Tassinari and Maccarrone, 2020), can often be explained as a result of platform work constituting false or bogus self-employment (Heyes and Hastings, 2017; Cant, 2019; Crouch, 2019; Howcroft and Bergvall-Kåreborn, 2019; Englert *et al.*, 2020). According to this explanation, the existence of collective action in the local gig economy is simply generated from the *de facto* employment relationship that these workers experience, despite their employers claiming no such relationship exists. However, in the remote gig economy, workers often identify as freelancers as opposed to workers or employees (Wood *et al.*, 2018; Soriano and Cabañes, 2020). They also enjoy significant autonomy to choose their place and time of work, tasks and methods, rates and clients—characteristics associated with self-employment (Wood *et al.*, 2019a). Fake self-employment as an explanation for collective action is thus less tenable in the remote gig economy.

In instances where platform work does not appear simply to be conventional employment disguised as self-employment, how can we explain the existence of worker collective action? Extant research on collective action in the remote gig economy is limited in that it is largely focused on micro-work. In this article, we draw on extensive fieldwork on macro-remote gig work to show how platforms’ privileged position within their triadic interactions with workers and clients leads to a dual process in which workers experience both enhanced agency in relation to clients and at the same time increased subordination to platform authority. This contradictory process, which we term ‘subordinated agency’, gives rise to antagonism that fuels conflict and, surprisingly, support for unions—while at the same time reinforcing freelancer and entrepreneurial subjectivities. The article concludes by considering the applicability of subordinated agency to the local gig economy and the platform economy more broadly.

2. From employment relations to platform relations

A frequent starting point for studies on conflict at work is the existence of an employment relationship, whereby an ‘employee works under the authority of an employer and receives a wage in return for his or her labour’ (Edwards, 2003, p. 1–2). Flanders (1975 [1970]) posited that employment could entail both market relations and managerial relations. Market relations refer to the process, regulations and terms under which workers are hired by firms. Managerial relations refer to the relationships that workers enter into once they have signed an employment contract and have thus ‘agreed to obey certain instructions with respect to his work, to submit to some kind of discipline’ (Flanders, 1975 [1970], p. 88). These managerial relations of authority and subordination arise from ‘the task of governing the enterprise ... [and thus] regulate work[ers] behaviour’ (Flanders, 1975 [1970], p. 88).

Importantly, managerial relations have been argued to generate a ‘structured antagonism’: an inherent dynamic which produces sustained overt and/or latent conflict over the distribution of the surplus created by the work, and also over how the work that generates this surplus is organized (Edwards, 1986). In particular, the system of control applied by management can give rise to conflict, as workers possess an inherent strive towards autonomy (Ackroyd and Thompson, 1999). This structured antagonism often sparks collective action (Edwards, 1986), when it coincides with a number of wider factors conducive to mobilization, such as collective action frames, supportive social networks, organizational resources and political opportunity (Kelly, 1998; Jansen *et al.*, 2017; Carruth, 2019; Fligstein and McAdam, 2019; Rothstein, 2019).

Collective action—also termed collective voice—can be defined as ‘any attempt at all to change, rather than to escape from, an objectionable state of affairs ... through ... collective petition ... actions and protests, including those which are meant to mobilize public opinion’ (Hirschman, 1970, p. 30). While a desire for unionism and collective action arises from employees perceiving they are being treated unjustly (Hodder *et al.*, 2017), the realization of this desire is dependent on adequate resources and organizational capacity (Kelly, 1998; Edwards and McCarthy, 2004; Jansen, 2014; Hodder *et al.*, 2017). Support for collective action by workers is often termed solidarity (Heckscher and McCarthy, 2014, p. 629), which can be understood in terms of a sense of shared interest and community developing via bonding and bridging within and between groups with situational commonalities (Jarley, 2005; Saundry *et al.*, 2012; Morgan and Pulignano, 2020; drawing on Putnam, 2000).

While the importance of resources and organizations to conventional strikes and union organizing is clear, Margetts *et al.* (2015, p. 10) posit that traditional resources and organizations are less essential for Internet-based ‘tiny acts of participation’, such as ‘posting a status; supporting or “liking” something on Facebook, or Twitter’. While individually tiny, such acts have potential to ‘scale up’ as many people undertake them and thus ultimately result in significant societal impacts. Inter-worker communication via digital media can also enable bonding and bridging, and thus foster solidarity among workers who are spatially and temporally fragmented (Saundry *et al.*, 2012; Wood, 2015; Cant, 2019; Maffie, 2020; Tassinari and Maccarrone, 2020). In these ways, new information and communication technologies potentially alter the resources and capacities needed for some forms of collective action.

2.1 Fissured employment relations: self-employment

New information and communication technologies have also afforded firms greater opportunities to forgo traditional employment relationships without compromising on product and quality standards, via ‘fissured’ employment relations (Weil, 2014, p. 4) and ‘vertical disintegration’ (Doellgast and Greer, 2007; Holst, 2014). These practices transfer the risks of managing employment to other entities and open up non-core activities to cost competition (O’Brady, 2021).

One way in which employment relations have become fissured is via the increased use of self-employed independent contractors and labour brokers (Weil, 2014). The self-employed are considered to operate outside of an employment relationship, as they enter into service agreements with their clients—which are governed by self-enforced contracts (adjudicated by courts if dispute arises)—rather than submitting to an ongoing relationship of subordination (Sisson, 2008, p. 14). As a result, self-employment has been considered as a purely market rather than a managerial relationship, with the self-employed being seen as an equal party to those with whom they are contracting (Sisson, 2008). However, in some industries, labour brokers have emerged as important intermediaries between workers and clients, giving rise to triadic relations between the three parties (Barley and Kunda, 2006). These labour brokers take ‘advantage of firms’ lack of information about contractors and contractors’ lack of information about job openings’ (Barley and Kunda, 2006, p. 4). Barley and Kunda (2006) document how these intermediaries typically locate positions for workers, deduct payroll taxes and occasionally provide health insurance in return for a fee of 30–40% of workers’ pay; but they do not involve an ongoing relationship of subordination.

A consequence of the increased use of self-employed workers who lack an ongoing managerial relationship is the expected reduction in collective action, as self-employment does not readily provide a structure that maintains inherently antagonistic relations. Dissatisfied individuals can more easily make use of exit to remedy working conditions that they find objectionable. Indeed, Hirschman’s (1970) foundational ‘Exit, Voice, Loyalty’ framework predicts that collective action (voice) is unlikely when actors, such as the self-employed, can easily exit from a relationship. Exit will provide the individual with an easier route to ameliorate their dissatisfaction by ‘voting with their feet’. In line with these predictions, only 7% of self-employed workers in the UK are members of a trade union (Brock, 2019), while Jansen (2020) finds that the Dutch solo self-employed are more likely to join organizations for professionals and the self-employed than trade unions.

Labour platforms also tend to classify their workers as self-employed, and thus protest by these workers is surprising (Howcroft and Bergvall-Kåreborn, 2019). However, some commentators see the local gig economy as constituting false self-employment (Heyes and Hastings, 2017; Cant, 2019; Crouch, 2019; Howcroft and Bergvall-Kåreborn, 2019). False self-employment exists when the ‘normal activities of self-employment are limited or non-existent, such as tendering for different contracts, negotiating prices for services with clients or employing workers in addition to, or in place of, themselves’ (Behling and Harvey, 2015, p. 970). This practice is utilized by employers to ‘reduce tax liabilities, or employers’ responsibilities’ (OECD, 2000, p. 156). It often leads to a situation where workers face ‘substantial continuity of engagement with a single employer over many contracts, lack of control over working times, not supplying plant or materials, or obeying instructions in everyday routines’ (Behling and Harvey, 2015, p. 970). In fact, in some cases, local gig platforms have actually employed their workforce (Ivanova *et al.*, 2018).

Prassl (2018) argues that the gig economy is best understood as a spectrum, with platforms that exercise all employer functions (such as hiring and firing decisions and control over work and pay) at one end, and platforms that share some mixture of these functions with workers and clients at the other. Platform work in the remote gig economy seems to be much closer to the true self-employment end of the spectrum (Howcroft and Bergvall-Kåreborn, 2019). Workers retain the freedom to decide which clients to work for, set rates and bring other workers into a project (Lehdonvirta *et al.*, 2019). Nevertheless, even in the remote gig economy a tension often exists between feeling that you are your own boss also not feeling truly self-employed (Lehdonvirta, 2018).

2.2 Fissured employment relations: temporary work agencies

The reliance on an intermediary that matches workers with clients resembles another fissured employment practice: the use of work agencies to manage a contingent workforce (Duggan *et al.*, 2019). Unlike with labour brokers, those working through temporary work agencies are not typically considered self-employed. Temporary work agencies maintain a pool of workers who are screened to ensure they meet minimum specifications (Peck and Theodore, 1998; Ward *et al.*, 2001). Once a client firm contracts an agency to provide labour on an *ad hoc* basis, the agency notifies workers of their placement. Whether the agency sends a day labourer back to the same client the next day depends on the client's evaluation of that worker. If the client does not want the worker to return, then another worker is sent instead. Three 'no returns' typically lead to an agency refusing future placements for the worker (Peck and Theodore, 1998). When a larger temporary workforce is required, an agency may instead of sending day labourers provide on-site supervision, evaluation and training functions on the client's premises (Peck and Theodore, 1998; Ward *et al.*, 2001). The ease with which temporary agency workers can be removed from placements and from the agency's books appears to reduce the willingness of such workers to support strikes regardless of the dissatisfaction they experience (Jansen *et al.*, 2017).

The triadic relations entailed by temporary work agencies resemble those found in the gig economy, but they also differ significantly in terms of the subordination of workers. Agencies not only match workers with client firms but also take on direct managerial functions that constitute a structure of ongoing subordination. In the case of on-site agencies, they provide supervision, evaluation and training functions on the client's premises. Day-labour agencies discipline workers on the basis of client evaluations, by restricting access to future work. This work organization leaves workers experiencing the dual control by both the agency and client (Gottfried, 1992) and they are thus 'profoundly subordinated' (Peck and Theodore, 1998, p. 661). The use of client evaluations to discipline workers through restricting access to future work is also a common practice in the gig economy (Lee *et al.* 2015; Duggan *et al.*, 2019; Gandini, 2019; Kellogg *et al.*, 2020). Yet despite this, remote platform workers have also been found to experience significant autonomy (Wood *et al.*, 2019a), a finding that sits uneasily with notions of 'profound subordination'. Remote platform labour may thus have characteristics that are distinct from agency work.

2.3 Fissured employment relations: platforms as 'market organizers'

Srnicek (2017, p. 48) defines platforms generally as 'a new type of firm; they are characterized by providing the infrastructure to intermediate between different user groups'. In economics and management literatures, platforms are often theorized as multi-sided markets

(Evans, 2003; Rochet and Tirole, 2003; Eisenmann *et al.*, 2006). By bringing together two or more distinct user groups, in this case workers and clients, platforms create new opportunities for exchange. Via these platforms, workers individually contract with a multiplicity of clients, and, to varying degrees, can choose the clients and jobs they take, and how they carry out those jobs (Prassl, 2018). In macro-remote platform work, workers can also set the rates that they ask from prospective clients (Shevchuk and Strebkov, 2018; Lehdonvirta *et al.*, 2019; Wood *et al.*, 2019a).

A further characteristic of multi-sided markets is that demand across both sides is interdependent (Rochet and Tirole, 2003): the more clients there are, the more useful the platform is for workers, and vice versa. These so-called, cross-side positive network effects can cause a platform market to ‘tip’ towards a single near-monopolistic platform (Eisenmann *et al.*, 2006; Gawer, 2014). Additionally, data collected by platforms on their users can lead to data lock-in, which means being locked to the platform because leaving would entail losing the benefits of the data the platform holds (Graef *et al.*, 2013; Srnicek, 2018). In the remote gig economy, more users on each side of the platform also mean more competition for projects and workers, creating so-called same-side negative network effects. Platform strategy thus involves managing growth on both sides, for instance by subsidizing one side with fees charged from the other side (Evans, 2003; Rochet and Tirole, 2003).

A complementary literature analyses platforms from the perspective of transaction costs (Malone *et al.*, 1987; Oyer, 2016; Lehdonvirta *et al.*, 2019). Platforms reduce search costs by providing search engines and algorithmic suggestions that help clients to identify suitable workers and vice versa. They reduce information costs by displaying digital skill certificates, reputation scores and other statistics concerning participants’ past history on the platform (Pallais, 2014; Kässä and Lehdonvirta, 2019). They also provide cheap, standardized and partly automated means to form contracts, monitor performance, invoice, pay and raise disputes in case of non-performance or non-payment (Davis, 2016).

Platforms must also overcome coordination problems in what are often low-trust, highly competitive and uncertain markets (Kirchner and Schüßler, 2019). Therefore, platforms retain ‘authority over important functions—the allocation of tasks, collection of data, pricing of services, and of course collection of revenues’ (Vallas and Schor, 2020, p. 10). By doing so, labour platforms are able to reduce the relative cost and complexity of controlling labour power outside of formal employment, which has likely acted as a barrier to the wider use of self-employed labour previously; by significantly reducing this barrier, platforms are posited to contribute to a growth of self-employed work (Davis, 2016). But in managing demand and seeking to reduce coordination problems and information and contracting costs, platforms also ‘embody a politics by shaping the ways in which interactions can take place’ (Srnicek, 2017, p. 47). Thus by administering membership accounts, creating and enforcing rules (see also Butler *et al.*, 2008; Evans, 2012; Müller-Birn *et al.*, 2013) and operating evaluation systems, platforms act as market organizers that maintain the necessary social order for transactions to take place (Kirchner and Schüßler, 2019, 2020).

The above review of the literature has highlighted that labour platforms in the remote gig economy seemingly differ from both conventional employers and also from conventional labour intermediaries, such as temporary work agencies—which entail a ‘profound subordination’ of ongoing dual control by both the agency and the client (Gottfried, 1992; Peck and Theodore, 1998)—and labour brokers (Barley and Kunda, 2006)—which entail little ongoing subordination. Instead, labour platforms act as intermediaries that enable multiple users

to interact and transact, while also embodying a politics through the strategic management of demand, coordination problems and information and contracting costs. In the remainder of the article, we explore how these platform practices generate and shape support for collective action and organization in the remote gig economy. While a growing body of literature investigates worker organization among remote gig workers (Irani and Silberman, 2013; Gupta *et al.*, 2014; Martin *et al.*, 2014; Gray *et al.*, 2016; Lehdonvirta, 2016; Yin *et al.*, 2016; Wood *et al.*, 2018, 2019b; Anwar and Graham, 2019; Greber, 2020; Soriano and Cabañes, 2020), as of yet little research has considered how conflict might be generated and shaped by the specific way that platforms enable economic exchange.

3. Methods

Our study was motivated by the following research question: ‘does the manner in which platforms in the remote gig economy enable economic exchange generate and shape worker support for organization and collective action?’ To answer this question, we followed Gawer (2014, p. 1240) in taking an agent-centric focus that is able to explore and ‘make explicit the micro-foundations of how platforms operate’. This approach complements extant research that has collected data on remote gig economy platforms’ management, design, clients and transactions (Corporaal and Lehdonvirta, 2017; Lehdonvirta, 2018; Gerber and Krzywdzinski, 2019; Lehdonvirta *et al.*, 2019; Wood *et al.*, 2019b; Gegenhuber *et al.*, 2020; Gerber, 2020). Our overall empirical approach is similar to the broadly ethnographic approach of Fantasia (1988) in his classic investigation of worker solidarity. Our study included 70 interviews with remote gig workers and 11 interviews with activists and advocates who were not platform workers themselves.

As we are particularly interested in how platform dynamics shape collective organization and action in the remote gig economy, we sought to generate a purposive sample that could be used to generalize not to a population but to a theory (Bryman, 2008). Our sampling frame was thus limited to remote gig economy workers who had engaged in some kind of collective action, organization or community. Previous research has identified that remote gig economy worker communities and organizations are based on self-organized networks (Gray *et al.*, 2016; Lehdonvirta, 2016; Wood *et al.*, 2018). Our assumption was, therefore, that collective action, where it existed among these workers, would be supported by such networks. Therefore, our unit of analysis was ‘worker networks’ in the remote gig economy, and, for this reason, it was appropriate to collect data from workers across multiple platforms (the assumption being that a platform would not exclusively determine network membership).

As many remote gig economy platforms operate a global workforce, it was important to capture experiences of workers from both richer and poorer countries. For logistical reasons, we wanted to narrow down our fieldwork to urban locations in which there appeared to be many workers voicing grievances. To identify such hot spots, we examined a case of worker voice in which thousands of workers took to social media and an online petition site to protest against one of the largest remote gig economy platforms. We scraped these critical posts from the platform’s own forum as well as from the petition site (this was only possible for the petition where the signer had left a comment). We then mapped this forum data ($n = 1110$) and the subset of the petition data ($n = 213$). Locations with 10 or more critical voices were San Francisco (SF) Bay, Los Angeles (LA), Kiev, Islamabad, Lahore, Dhaka and

Table 1 Overview of worker interview informants.

Worker characteristics	North America/UK	The Philippines
Average age	35	34
Female	43%	49%
Higher education qualification	89%	89%
Median platform rate	\$40	\$8
Three most common services	Advertising, marketing and search engine optimization (11); design, 3D rendering and modelling (10) and writing and editing (6)	Virtual assistance and customer service (11); advertising, marketing and search engine optimization (11) and design and animation (6)

Manila. Locations with seven to nine voices were numerous but included New York City and London. With logistics taken into account, our final choice of fieldwork locations was SF Bay, LA and New York City (NYC) in USA, as well as London, UK and Manila, Philippines. In total, we interviewed six workers in SF, nine in LA, five in NYC, seven in London, 34 in Manila, as well as nine workers located in other cities. An overview of the interview informants is provided in [Table 1](#).

3.1 Recruitment

The interview participants were recruited following four paths. The first path entailed identifying and contacting workers who had participated in the above act of voice. This resulted in 35 initial informants and involved searching for them on Google and LinkedIn so as to contact them via email or LinkedIn messenger. For seven of these workers it was not possible to locate any other communication channel so they were contacted via the creation of a job on the platform that they used. However, for these seven workers, it was stressed that the request was not for them to undertake a job but instead an opportunity to engage in voluntary research, and the job contract was not enacted. The second recruitment path entailed snowballing several participants from other informants. Sixteen workers were sampled in this way. The logic of doing so was that if the first informant knew the second informant well enough to connect us, then some kind of network relationship existed between them.

It was also deemed important to gain insight from worker leaders and key nodes in worker networks. Therefore, a third pathway involved contacting leaders and organizers of freelancer communities, both online and physical, who also worked as online freelancers. This led to the recruitment of a dozen informants. The fourth recruitment pathway was from attending virtual and physical community events and meetups (with permission from organizers), which led to the recruitment of a further dozen informants. Finally, we recruited two informants in Manila who had indicated that they were part of worker networks during our previous research in the Philippines.

Previous research has highlighted that remote gig workers are most likely to engage in collective organization and support collective action when this work is an important source of income to them ([Wood et al., 2018](#)). Therefore, our purposive sampling is probably biased towards successful workers rather than those struggling to get work.

Interviews were conducted at workers' local coworking spaces, cafes and similar sites. Each worker had their travel costs reimbursed and, as a token of appreciation, were offered the equivalent of a \$15 gift voucher, except in the Philippines where this was not possible and the informants instead received a cash equivalent. Interviews followed a semi-structured protocol, lasted approximately 90 min on average and were audio-recorded.

Besides workers, we also interviewed freelancer community activists and advocates who were not workers themselves ($n = 11$). These informants included labour movement activists and officials engaged in organizing and representing workers in platform economy ($n = 5$), advocates of the platform cooperative movement ($n = 4$) and leaders of a freelancer online community ($n = 1$) and self-employed professional association ($n = 1$). Some of these were located outside the five fieldwork zones.

3.2 Participant observation

To gain a deeper understanding of the nature of gig worker community and the bonds between workers, it was deemed important to gain experiential knowledge of worker organization. Therefore, a number of events and meetups attended by remote gig workers were observed. These included four co-working days for freelancers held at co-working spaces and organized by freelancers themselves (LA, Oakland CA, London $\times 2$), three meetups for freelancers or digital nomads (Manila, SF and Freemont CA), three events organized by a freelancer union (LA and New York City $\times 2$) and a platform coop conference. An online meetup of freelancers in the Philippines was also attended, via video conferencing, while the researcher was carrying out fieldwork in Manila. In each case, permission from the organizer was sought and obtained beforehand. The participation of the researcher was, when possible, announced at the beginning of the event and/or individually as the researcher spoke with the attendees.

3.3 Analysis

The data in the form of transcribed interview recordings were coded, following [Vaughan's \(1992\)](#) theory elaboration approach. Initial codes were informed by the above theories of conflict at work (in particular, [Hirschman, 1970](#); [Edwards, 1986](#); [Kelly, 1998](#); [Ackroyd and Thompson, 1999](#)) and new codes developed out of an iterative process. To explore how platforms shape collective action and organization, the interview transcripts were coded line by line, paying particular attention to mentions relating to worker–platform relations, worker–client relations, worker–worker relations, organization and collective action, as these were relevant to the research question. New codes were developed through an iterative process and they informed subsequent data collection to ensure theoretical saturation. NVivo enabled systematic theoretical coding to be undertaken and hundreds of initial codes to be generated. Focused coding was then employed to highlight the most common and revealing initial codes and to merge appropriate initial codes into new higher level codes, as suggested by [Charmaz \(2006\)](#). The relationships between the most important codes are mapped in the [Online Appendix](#).

4. Findings

4.1 Worker–client relations: the enhancing of exit

To explore how platform-enabled exchange shapes collective action and organization in the remote gig economy, we begin by elucidating the client–worker relationship. Our informants

mentioned that repeat business was preferable to one-off transactions, as it enabled the building of trust (see also Shevchuk and Strebkov, 2018). However, reliance on repeat business risked dependence on a single client. Indeed, trust formed through repeated interactions and the resulting dependence on key clients has been identified as a feature of freelancing well before platforms (Antcliff *et al.*, 2007). Yet our findings suggested that platforms could, in fact, significantly reduce such risk of worker dependence on individual clients.

A key theme of the interviews was that platforms made it easier for workers to find clients beyond their locality and thus increased their options in the market. As Brett (copywriting; LA) explained:

Freelancing through the platform ... is great as far as being able to log on, and there's just a breadth of work that you can bid on from around the world. It's not just from companies that are right here in town.

Holly (digital marketing; LA) described how the platform she used provided so many potential clients that she could turn down those clients that were not appealing, such as those who paid only a fixed rate:

The platform does a phenomenal job at curating for me ... I'll just turn those [fixed rate] jobs down ... I mean you have the ability in the platform to decline anything that you don't want.

The ability to find clients beyond the local labour market made it more feasible for freelancers to exit relationships with existing clients. Julie (copywriter, LA) explained how the platform she used put freelancers in a position to 'fire their client':

I've had some clients ... [where] it was just the last straw and I was like, why am I dealing with this pain, this stress? ... So like I cut ties ... You always have the option of firing [the client].

This was also true for freelancers in the Philippines. Arwind (game design and illustration, Manila) highlighted how easy it was to end a relationship with a bad client and find another:

Whenever I get bad clients, I just cancel the project. I don't want to ... waste my time with those clients.

Raymond (programmer; Manila) contrasted the ease of exiting a platform-based client relationship with the difficulty of exiting a conventional employment relationship:

The best part ... about freelancing is ... I can choose when I want to work and I can choose who I want to work with ... Like with any other freelancer that encountered really bad clients where they gave vague requirements, they, they make unreasonable expectations with a very low rate, and you can choose not to work with the client anymore. And that doesn't happen when you're corporate where you have a boss and you have to keep working with that boss whether you like it or not.

Moreover, the informants explained how the threat of exiting a relationship with a client could be used to improve their working conditions:

[A client] was a micromanager . . . I told him, 'If you don't stop doing this to me, you have to find a new one "cause this will not work out for us"'. . . . It was a wakeup call for him . . . during these past few weeks . . . he's not the micromanager anymore . . . he changed a bit . . . for the better . . . I can decide . . . if I want to work with them or if I would like to stop working with them. (Gabe, digital marketing; Manila)

In fact, informants explained how they encouraged each other to take advantage of this potential for exit to sanction bad clients. For instance, May (customer support, virtual assistant; Manila) counted this among the most frequently discussed topics on a freelancer social media group she ran:

If the client is really rude or it takes too much work but then your pay is just like this [low] . . . we normally advise the . . . other freelancers that, 'Hey, you can just go ahead and find another client'.

The ease with which workers could end a relationship and find a new client via the platform was generally considered to result in good client relations, in which workers felt well-treated, respected and an equal to the client. Hirschman (1970) predicts that ease of exit will reduce the attractiveness of collective action as a response to an objectionable state of affairs; in line with this prediction, our informants rarely brought up the need for the client-worker relationship to be regulated via union representation or collective bargaining. In other words, remote gig platforms provided these workers with significant individual 'labour mobility power' (Smith, 2006; Alberti, 2014) to bring to their individual bargaining with clients.

Taken together, these findings suggest that workers in the remote gig economy can experience high levels of autonomy due to *reduced* dependence on individual clients, because platforms increase workers' agency to contract with a diverse pool of clients beyond their local labour market. This enhanced agency extends workers' ability to choose their place and time of work, tasks and methods, rates and clients. Moreover, by boosting workers' ability to connect with clients beyond their local labour market, platforms increase worker mobility power and their ability to exit individual client relationships. Platforms then help to foster good ongoing client relations and suppress worker motivation for collective action as a remedy to client behaviour.

However, as noted before, our sample was probably biased towards more successful workers. Those struggling to get gigs on platforms are clearly not benefiting from increased mobility power in this way. Nevertheless, there is nothing to suggest that platforms would make less successful workers more dependent on individual clients than they would otherwise be if they only sought clients in their local market.

4.2 Worker-platform relations: the constraining of exit

Above we highlighted that workers in the remote gig economy experienced heightened agency in their ability to contract with clients, and thus motivation for collective action in these relations was suppressed. However, our analysis of worker-platform relations will show that worker dependency was not being eliminated, but shifted from worker-client relations to worker-platform relations. The increased ability of freelancers to connect with clients beyond the local labour market was reliant on the platform facilitating the relationship

as ‘market organizers’ (Kirchner and Schüßler, 2019, 2020). As Thomas (programming; Ipswich UK) explained, the platforms operate as gatekeepers to accessing clients:

That’s a global platform ... otherwise [workers] don’t have so many opportunities to reach ... more wealthy clients, more business ... that’s the only gate[way] for them to reach some clients and just pick up some gigs.

Moreover, important theme of our interviews was that workers tended to rely on a single platform. There were three principal reasons for this. The first was that positive network effects meant that most of the high-quality clients in a certain sector tended to be found on a particular platform, so that workers had little option but to use it. This was in line with the observation from platform theory that platform markets tend towards monopoly (Eisenmann *et al.*, 2006).

GigOnline really has a monopoly on it ... they truly do ... I don’t wanna say it’s the best one, it’s the only one ... I think a monopoly is always bad. (Holly, digital marketing; LA)

In fact, one of the major platforms used by our informants had recently merged with its major competitor, dramatically reducing options:

Most people I know dislike it [GigOnline] ... you use them because you have to ... they purchased platform X ... [and] platform Y and consolidated ... no one has any other option. I tried to get [in] to FreelanceOnline but that sucks even more. So they got me back on GigOnline. (Chris, digital marketing; LA)

The second reason for reliance on a single platform was data lock-in (Srnicek, 2018). Srnicek (2017) points out that by placing themselves as an intermediary, platforms are able to collect data on their users’ behaviours. This data can be highly valuable, and, in the case of the gig economy, what is particularly valuable to the worker is their online reputation, which reduces client uncertainty about worker skills and competence (Pallais, 2014). This platform reputation is created from customer feedback on the workers’ performance. Without a good platform-based reputation it was very difficult to get clients. This situation was exemplified by Tim (3D rendering; LA), whose main platform was GigOnline but who was trying to diversify his platform use:

I’m on FreelanceOnline but I haven’t got one single job from there yet. Because I have no work history there, so I think I get excluded from a lot of potential jobs.

As a platform reputation provides workers with an important source of bargaining power, the only way to build it up again on a new platform would be to accept a much lower rate, as Casey (UX and graphic design; LA) explained:

Any time you sign up for a new platform there’s just a big barrier to entry because you have to have those reviews ... I just don’t want to start at that \$15 per article again ... I’m glued to GigOnline.

Reputation data are trusted because the platform takes efforts to guarantee its integrity (Lehdonvirta *et al.*, 2019). As a result, the data cannot simply be copied from the platform and presented outside of it without compromising its value. This locks the worker into using the platform by creating high switching costs (Graef *et al.*, 2013).

We had already had a good reputation [on GigOnline] so it's not more of a loyalty, it's that they have a hold on us. That's why we ... really keep on staying, not because we really like the website. (Janine, game and graphic design; Manila)

I was so close to deactivating ... then I realised, oh, no, all those, all those good feedbacks are going to be deleted ... and so, I said, "Okay, I just won't do it" 'cause I won't get any new jobs ... I need that [reputation]. (Raymond, programming; Manila)

The third process that increased worker dependence on a platform could be called gate-keeping: platform companies intentionally tried to make it difficult for workers to connect with clients outside of the platform. The companies' tactics included not displaying users' full names and automatically screening communications to block out links to other websites and contact information. These techniques were buttressed by exclusivity clauses in the platforms' terms and conditions, which ostensibly prohibited workers and clients from undertaking business together outside of the platform.

4.3 Worker–platform relations: subordination and antagonism

The section above explored the processes through which workers in the remote gig economy become dependent on a single platform. As highlighted in the literature review, this platform dependence exists within a context where platforms act to maintain social order (Kirchner and Schüßler, 2019, 2020) via their authority to set and enforce rules (Srnicsek, 2017; Vallas and Schor (2020)). In the remote gig economy, this combination of platform dependence and platform authority results in a relationship of subordination towards platforms that workers cannot easily exit. As a consequence, antagonism becomes a structural feature of worker–platform relations, as the findings in this section will demonstrate.

Structured antagonism was readily evident in three areas of worker–platform relations: fees, competition and voice mechanisms. The most evident area in which platform subordination generated antagonism was the charging of fees. Platforms made their profits by charging workers a fee for using the platform. This fee was usually 10–20% of the workers' earnings for each gig they undertook via the platform. Due to the processes of platform dependency outlined above, platforms were in a strong position to charge high fees in the knowledge that workers had limited ability to respond with exit. While some workers accepted the platform fee as the price of using the service, a far more prominent theme in the interviews was how platforms were seen to be taking advantage of workers' limited ability to exit. A common view was that of Earl's (copywriter; Manila):

They [are] taking pay, 10% out of my take-home pay ... which is really unfair.

Gemma (writer and script editor; Liverpool UK) pointed out that the headline fee was often compounded by additional hidden fees:

Having to pay 20% on top and then having to pay a percentage for withdrawing your own money. It's just not on ... it's just wrong.

This distributional conflict became clear to some workers after one of the major platforms doubled the fees it charged for many gigs, from 10% to 20%. The platform did not consult the workers beforehand and simply announced that a new fee structure would be enacted in a few weeks' time. Casey (UX and graphic design; LA) summarized the frustrations this caused workers who had joined and invested in their platform reputation:

I was already giving them a lot of money ... when they changed their policy to, like, the 20%, and then they decided to add a credit card fee on top of that. I ... went nuts ... like, I think it would have been fine, like, had I signed up to GigOnline knowing that already ... out of nowhere [to] change it, it was just kind of frustrating.

Gabe (digital marketing; Manila) used the idioms of slavery and sweatshops to express his concern about the potential for increasing price gouging by platforms:

We're earning less and less ... because the platform that we're using is taking away twenty percent from us ... if it stays this way, the freelancing industry ... [will] turn into slavery or sweatshop.

An important theme of the interviews was how workers rejected the platform company's justifications for the fee increase and instead perceived the platform's motivation as being 'greed' and self-interest. As Brad (management consulting, programming, graphic design; LA) summed up:

It was an opportunity to ... take more money [from freelancers] ... there was no benefit for anyone [apart from the platform].

Another area where platform subordination fed distributional conflict between workers and platforms was over the effects of competition on workers' pay rates. Workers on most platforms can formally set their own rates, but their ability to realize that rate is heavily influenced by the degree to which the platform exposes them to competition. For instance, many of the US informants relied on platforms that were closed to workers from other countries and which encouraged freelancers to charge relatively high rates. These platforms also limited workers' ability to enter into bidding wars and undercut each other. These limits to competition were aimed at maintaining pay rates that would attract skilled US-based workers with the necessary cultural competence to ensure a high-quality service. However, other platforms were far more open to workers from across the globe and actively encouraged competition to attract clients on the basis of low prices. Therefore, platforms' decisions regarding competition shaped workers' ability to obtain higher rates from clients, thus being a source of antagonism.

With GigOnline, you're competing with people in India ... who can charge \$4 an hour ... Most of the things I get there is just offensive like just offensively low ... I'm not gonna write an article for you for \$8. (Kelly, digital marketing; San Francisco)

It's a global market now ... my fees are four times as high as the guy in the Philippines ... So it's bullshit ... I spent six months probably, learning how to use this software ... but what they were offering ... I might as well work in McDonald's. (Tim, 3D rendering; LA)

Even interview informants in Manila, where the cost of living was lower, were concerned about the degree to which they were exposed to market competition. For instance, as Earl (copywriter; Manila) explained his frustration with the platform he used:

GigOnline is ... letting these people come in and just, you know, do whatever they want to their freelancers ... Even if ... the project's really good ... you are fighting ... against ... copywriters who are charging \$5 per hour, how are you supposed to win?

He believed he was less exposed to competition in conventional freelancing outside the platform:

Outside [the platform] you can ... dictate your price ... [but you] can't do that in GigOnline ... there's this competition and even if you're already established you know there's still ... the potential that you can ... lose the job just because the other guy is charging less than you.

Marizze (admin and customer support, research; Manila) also believed that the platform was not doing enough to manage labour supply:

[If] the amount of freelancers gets too high, I'm not really sure if the demand would catch up with it, and then I'm seeing it now in GigOnline 'cause ... now I'm seeing this trend where there's an influx of freelancers.

Nevertheless, these concerns tended to lead to greater outrage among workers in the high-income countries, where the issue had a more immediate impact on worker livelihoods:

It's just absurd ... it should be illegal ... they're not supposed to be able to pay less than minimum wages ... people ... are looking for unreasonable bargains. ... There's enough of the talent from India and places like that and Vietnam even ... A lot of people are desperate and they will ... work for next to nothing. (Brad, management consulting, programming, graphic design; LA)

This dissatisfaction was especially palpable when the platforms were seen as having a wider effect on the workers' sector by undermining local industry pay norms.

[Platforms] are undermining the industry. You know, if you're telling someone I'm getting paid 30 bucks ... for this blog post, then who's gonna wanna pay our living wage? (Julie, writing; LA)

The existence of a structured antagonism between workers and the platform was also evident in the work organization. In particular, by giving workers the same 'customer' status as clients, the platforms did not recognize workers as a constituency with particular needs stemming from their potential for economic dependency. Instead, they were provided with customer service as the only means to formally raise issues, and thus in effect denied effective voice mechanisms regarding their livelihood. Afril (graphic design; Manila) provided a particularly clear account of the dire consequences that this could have:

I tried to reach the support team for Gigs4Dollars ... they never ever reply ... It's just automatic computer that just send the same message over and over and over ... Finally, the contract was

cancelled by Gigs4Dollars itself ... they blocked me from my account ... I had lots of good five-star rating[s] ... after that day I couldn't find another client on Gigs4Dollars.

The difficulty of raising issues relating to the reputation system was a cause of particular frustration. Reputation systems are central to gig economy work organization. For example, Brad (management consulting, programming, graphic design; LA) explained how difficult he found getting the platform to remove bad feedback:

You have no feedback, no input ... I've raised hell ... It's really frustrating ... it affected my income when I would get dinged [rated down] down on stuff ... I had to raise hell on it and it took like, six to eight weeks ... they eventually got it all taken off ... their internal process was so awkward, that they couldn't do anything about it.

Other workers similarly felt that the platforms they used had little interest in their fears regarding their platform reputation, even though it was central to their ability to make a living:

He just finished the project, rated me three stars ... I tried to tell GigOnline what happened and they ... just don't care. Arwind (game design and illustration; Manila)

I was certainly one of the ones to complain about it. "Like what do you mean my job success score is 79%? ..." But there's no one to complain to. Holly (digital marketing; LA)

[Gegenhuber et al. \(2020\)](#) argue that platforms in the remote gig economy tend to provide workers with voice mechanisms which are 'microphones' rather than 'megaphones'. If this is the case, then the workers in our study felt these microphones to be broken or to have their volume so low as to be inaudible. Our informants felt that it was equally difficult for them to have a voice on broader and systemic issues that affected many workers. For instance, Chris (digital marketing; LA) explained:

[It's] very hard, very hard [for the freelancers' voice to be heard]...[The platform's representatives] are not very transparent. I asked them the other day, what are they doing to fix these [platform] outages, they didn't respond to me. ... and other people seem to say the same thing.

Workers did not feel like they were consulted about important changes to the platform that could affect their livelihoods. As Andray (lead generation and customer service; Manila) explained:

Before they announce some implementation, they have already implement[ed] it. ... they don't ask us.

A common theme in the interviews was the perception that the reason behind this constant denial of worker voice was that clients were currently relatively more valuable to the platforms, leading to clients' interests being prioritized over those of workers.

4.4 Antagonism: the support for collective organization

As a result of feeling the platforms were unresponsive to their concerns, our informants highlighted the need for new collective voice channels to resolve these antagonisms. This

was something which Nick (video and audio editing; London) highlighted particularly clearly:

Everybody needs protection. Especially, as we are kind of vulnerable, I suppose 'cause like I said, they could just make that change. We couldn't do anything about it. They don't listen to us.

Paul (advertising, content creation, logo design; LA) explained that while freelancers are often assumed to be atomized individuals, their fragmentation actually makes collective organization even more important:

If the road that we're all on is increased fragmentation, there's gotta be some collective something that looks out for the interests [of freelancers]. I mean I realise that freelancers have had to ... lookout for themselves ... But wouldn't it be a better place if you had a number of people that had similar interests that were looking out for each other.

Likewise, Julie (writing; LA) explained how collective organization that was able to increase freelancers' visibility and rights was central to her vision of the future for freelancing:

What I'd like to see for freelancing in the future is like definitely more community, more visibility, more rights.

Karen (digital marketing; Birmingham UK) further elaborated on this theme by highlighting the importance of an organization that would be able to represent freelancers towards the platforms:

I think it would be more useful to have some sort of other ways of communicating with these companies because ... they are so important to so many people making a living, and that's only going to ... grow ... Like a conference where you can go and ... speak to a board ... or people to represent us as a group, so that we can have some sort of protection and representation.

As suggested by the findings reported thus far, our informants often had similar experiences of antagonism with platforms, despite the multiplicity of platforms they used and the widely different tasks that they undertook. This could lead to a sense of shared interests. As Thomas (Programming, Ipswich; UK) explained:

Everybody have the same struggle. Everybody have same experience and we as a community can, I don't know, use our force for instance, to ... enforce some changes, so at least spread discontent and in that way ... one thousand might try acting in a way that will ... benefit everybody.

In fact, findings suggested widespread support for unions, despite the fact that almost none of the informants had any previous experience of organized labour, and that the informants had little certainty as to how unions could function in a gig economy. A clear theme was the hope that a union could rebalance the freelancers' subordinated relationship with the platform. Laura (digital marketing, SF) explained how a union could benefit freelancers if large numbers of high-end workers joined:

[If] the higher-cost freelancers, all or a great majority, joined a union ... I can imagine ... [that] helping towards reduced fees and other ... things that are of interest to freelancers.

Jean (Ecommerce, website consulting, design; LA) believed that even with a membership of a few thousand workers, a union could be able to apply pressure on platforms:

If there was a way for us to talk to each other and organise ... even if it was just a thousand of us ... “look, we’re not going to work anymore until you change this.” Maybe a thousand, a few thousand we’d have more power.

Raymond (programming; Manila) explained how such a union could be built around the shared experiences of undertaking labour through a platform:

A union ... freelancers must first unite and ... agree on several certain common things that are immutable ... whatever your job is whether you’re a web developer or a graphic designer.

Other workers, particularly in the Philippines, where there was less of a history of trade unions, were not as hopeful but still supportive in principle. For example, Gabe (digital marketing, Manila) explained:

GigOnline I don’t think they’re going to allow [a union]. Yeah. It’s not going to work ... [But] if there is [one] I’d join.

Workers in the Philippines were also fearful of repression. Bernadette summed this up particularly clearly when she responded that she imagined that being in a union:

Takes a lot of my time and it’s very dangerous ... here in the Philippines, in the street, it’s not safe.

Despite having no previous union experience or formal knowledge of industrial relations, Karen (digital marketing, Birmingham UK) even articulated a desire for industry-level bargaining:

I wouldn’t say [the union should be only] GigOnline-focused ‘cause I know there are other companies like them, you know ... getting some ... representatives of these people and these companies in the same room and saying “How can we work together now for the next five years” to, you know, grow what we’re doing but also, it’s so we could work for both sides.

This union support is perhaps surprising, as the informants overwhelmingly identified as freelancers rather than as employees of clients or platforms. Many of those who identified as freelancers saw themselves as constituting a ‘business’ or at least aspiring to be one with regards to their relationship with their clients. For example, Karen explained:

the conversations and meetings I have with my clients is, it’s like business-to-business, because, you know, I am my business.

Likewise, Laura (digital marketing, SF) emphasized the importance of seeing oneself as a business when interacting with clients:

I like to consider myself a business that's interacting with their business. I think it puts us more on a level field. I don't consider myself an employee because well, I'm technically ... well, I'm not an employee ... it is a business. It's a business-to-business relationship.

It seems that this identification as a business was rooted in the experience of formal autonomy in their relations with clients. As Danica highlighted:

I do business ... I'm removing my employee mentality, 'cause I am able to do business ... I market myself ... I handle everything ... I do negotiations and all. So I'm leaning in the direction of doing business ... I still see myself as a freelancer, but I would like to evolve to business.

Despite identifying as businesses, informants saw no contradiction with also being a member of a union. As exemplified by Marcus (digital marketing; London), many of the informants could not comprehend why it might be considered a contradiction:

What you would hope for is an established authority that you feel has your best interests at heart ... Where would the contradiction [between being a freelancer and a member of union] be?... You're likely going to be self-employed for a longer time, and I think those people deserve support or some sort of [protection as workers], some sort of union.

Even when the informants were aware of this potential contradiction, they explained how it was the power of platforms that meant that contemporary freelancers needed a union:

You have to stand up and go, we're not gonna do this anymore. So I'm surprised there isn't a union as such for freelancers, which sounds [like] an anomaly. You know, a freelancing union. But there should be because it needs to be regulated more. In a way, it's slave labour. It's slave labour every day for freelancer writers, fighting, trying to find work through platforms like GigOnline and OnlineGigs because it's just is not a fair marketplace at all. (Gemma, writer and script editor; Liverpool UK)

4.5 Collective action in the remote gig economy

Thus far we have relied on workers' perceptions of both distributional and organizational conflicts of interest to tease out the process by which platform subordination leads to the manifestation of a structured antagonism in three areas. However, it is also possible to directly observe antagonism through the generation of collective action. During our research, one of the largest remote gig economy platforms, which we refer to as 'GigOnline', doubled its fees for many gigs from 10% to 20% of the gig's value. In response, thousands of workers voiced their opposition via social media. Gerber (2020) and Gerber and Krzywdzinski (2019) argue that remote gig companies invest in the creation of online communities because doing so indirectly aids platform control of workers' performance without generating collective resistance. Likewise, Gegenhuber *et al.* (2020) argue that these spaces are limited to 'pre-defined issues that can be muted [by platforms]' (2020, p. 3). However, in the context of the above antagonism, we find that workers can, in fact, transform such online spaces into places for the collective voicing of outrage. Other workers signed an online petition in protest of the fee increase. As explained in Section 3, these examples of voice were scraped and mapped to inform the selection of locations for fieldwork. Of the interview informants, 35 had directly participated in these voice activities.

The informants explained how the act of posting on the forum was driven by feelings of outrage at the perceived unfairness of the platform's behaviour:

My blood was boiling ... it just made me see red because they were taking us for fools ... they thought we were stupid. (Gemma, writer and script editor; Liverpool UK)

I was reading through a lot of the responses ... it's probably pretty charged ... people [were] getting angry on forums, 'No, we don't like this!' 'It's not fair!' (Karen, digital marketing; Birmingham UK)

The same feeling of outrage at an injustice motivated those who signed the petition and then shared it via social media, as Casey (UX and graphic design, LA) explained:

I was just like, 'Yeah, screw GigOnline!' Yeah, I went crazy on social media [as well as signing the petition] too ... 'You guys are making so much money, like, how dare you guys take from the little guys?' That's how I felt ... It doesn't affect me all that much, but I was really frustrated for all the other freelancers who I knew ... that's their main income.

This anger was heightened by the platform company's poor communication and the perception that they were trying to mislead the workers:

I thought that they were full of shit ... I didn't think it was right. I thought they were abusing their [position] ... it was greed. (Nick, video and audio editing; London)

The informants made clear that their posting on social media was not simply a form of individual voice. Instead, they explained how this event was experienced as a collective action undertaken collaboratively with their virtual co-workers:

You could feel the anger of the screen. So it's just important ... that it was added to ... [and to] have a voice you know. (Gemma, writer and script editor; Liverpool UK)

I was too emotional ... it was interesting to see so many people reacting ... then I realised that oh my gosh, we are all in it together. And some messages were really smart, there were a lot of interesting people doing ... different types of work but the same freelancing, the same type of job. (Jean, Ecommerce, website consultant, design; LA)

You read all the posts and you, you feel, you see all the anger that's building up in each freelancer that's posting. (Raymond, programming; Manila)

In fact, the informants themselves often used the idiom of a 'protest' to describe this online event.

Decided to protest and raise my voice. (Thomas, Programming, Ipswich; UK)

Just adding a voice to them ... million other voices. The same way people did on a tax march last week. Tax march doesn't mean much if there's only ten people. When there's a million people, people notice. So I didn't think it would get responded to or read but I thought if I added one to those thousands, then it would help ... It was a way of protesting. (Chris, digital marketing; LA)

However, to recognize this event as an embryonic form of collective action is not to suggest that it was effective. Given the benefit of hindsight, our informants were generally clear

that they did not expect the action to be successful. They simply had no other means by which to protest the platform's behaviour. As Matthew (voice actor, Liverpool) explained:

I didn't really think that it would change anything. It, it was just like, well, I've got an ability to have a voice, so I can use it.

Ackroyd and Thompson (1999) argue that resistance does not always take the same force or form, but it will be present if researchers have the time and inclination to search for it. We are not here concerned with the efficacy of the actions that workers took to protest the platform's behaviour, but rather in observing them as further evidence of the existence of a structured antagonism between workers and platforms. Tiny acts of online collective action can be particularly revealing of underlying dynamics of contention, as such acts do not require the same level of resources and organization as more traditional forms of collective action (Margetts *et al.*, 2015).

5. Discussion and conclusions

The aim of this study was to consider whether conflict in the remote gig economy might be generated and shaped by the specific manner in which economic exchange is enabled by platforms. Our review of previous literature suggested that platforms in the remote gig economy differ from conventional employers and temporary work agencies in terms of the level of ongoing subordination. However, theory from economics, economic sociology and management studies also suggested that platforms constitute more than simply labour brokers that match workers with jobs in return for a fee (Barley and Kunda, 2006). Specifically platforms strategically manage demand, coordination problems and information and contracting costs (Rochet and Tirole, 2003; Butler *et al.*, 2008; Evans, 2012; Müller-Birn *et al.*, 2013; Kirchner and Schüßler, 2019, 2020; Lehdonvirta *et al.*, 2019). Interpreting our empirical findings against this background, we propose the notion of 'subordinated agency', in which workers experience enhanced agency towards clients, while at the same time experiencing subordination towards platforms. This subordinated agency helps to explain why we see the simultaneous persistence of self-employed freelance identities and a desire for collective action among remote gig workers. It also explains the chief characteristic of collective action observed in the remote gig economy—that workers mainly seek to exercise collective voice towards platforms rather than particular clients.

The 'agency' part of subordinated agency is that platforms increase workers' agency to contract with clients and thus their mobility power relative to clients. This has the potential to increase workers' ability to choose clients, rates, tasks and methods and times of working. In this manner, labour platforms in the remote gig economy reduce the potential for false self-employment in terms of dependency on a single client. Therefore, collective action is unlikely to arise in this segment of the gig economy as a means to remedy dissatisfaction with regard to client behaviour. Our informants displayed little interest in the regulation of their client relationships via collective bargaining or union representation. They largely saw themselves as being located in symmetrical power relations with their clients with whom they could effectively represent their interests to directly on an equal business-to-business footing.

Workers find, however, that this enhanced agency to contract clients comes at the expense of having to contend with platform dynamics that tend to leave them dependent on a

single platform: network effects, data lock-in and gatekeeping, in which platforms tried to prevent direct contact between workers and clients (Eisenmann *et al.*, 2006; Graef *et al.*, 2013; Gawer, 2014; Rosenblat and Stark, 2016; Srnicek, 2017, 2018; Lei, 2021). Workers thus placed within a position of dependence on a single platform find that they must also accept the platform's authority as 'market organizer' (Kirchner and Schüßler, 2019, 2020). In combination, platform dependency and platform authority lead to workers' subordination towards the platform despite enhanced agency towards clients.

This contradictory process of subordinated agency leads workers in the remote gig economy to experience antagonisms that are structured into their relationship with platforms, while any antagonisms with specific clients remain transitory (such as client feedback perceived as unjust; see Wood and Lehdonvirta (2021)). Specifically, we identified three areas of distributional and organizational antagonism in the remote gig economy: fees, competition and voice mechanisms. This structured antagonism (Edwards, 1986) leads the workers to support collective voice, including unions, even as they identify as self-employed freelancers and businesses thanks to their relative agency in dealings with clients.

However, irrespective of the antagonisms that workers experience as a result of subordinated agency, the feasibility of effective collective voice will nonetheless depend on the existence of adequate resources and organizational capacity (Kelly, 1998; Edwards and McCarthy, 2004; Jansen, 2014; Hodder *et al.*, 2017). Indeed, the perceived benefits of collective voice activities would need to outweigh the high short-run costs of action, which have been found to weaken the translation of grievances into support for strikes among contingent workers (Jansen *et al.*, 2017). This means that small acts of participation via the Internet, which entail fewer costs and resources (Margetts *et al.*, 2015), may remain the most common form of collective action in the remote gig economy (see: Irani and Silberman, 2013; Salehi *et al.*, 2015; Lehdonvirta, 2016; Wood *et al.*, 2018; Johnston and Land-Kazlauskas, 2019; Panteli *et al.*, 2020). Importantly, then, our findings also highlight that it is possible for remote gig workers within a context of heightened antagonism to transform platform voice infrastructures, such as forums that are designed to be platform-controlled 'microphones' (Gerber and Krzywdzinski, 2019; Gegenhuber *et al.*, 2020; Gerber, 2020) into spaces for collective voice.

The empirical focus of our study was the remote gig economy. This raises the question of whether our model of subordinated agency is likely to be applicable in the local gig economy. Interestingly, emerging qualitative research on protest in the food delivery market highlights the centrality of antagonisms between workers and platforms in generating the protest (Cant, 2019; Tassinari and Maccarrone, 2020). Additionally, Maffie (2020) and Newlands *et al.* (2018) find support for unionization among Uber drivers. However, the local gig economy is often considered to be closer to conventional employment (Prassl, 2018), and some platforms even formally employ their workforce (Ivanova *et al.*, 2018). This seems to limit the applicability of our model to this sector. But even in the local gig economy, Cant's (2019) ethnographic account of a delivery platform stresses how the absence of managers and supervisors combined with an individualized environment in which workers attempt to use their autonomy over working times, routes and procedures to maximize their earnings leads to feelings of being one's own boss. Likewise, Bloodworth's (2018, p. 252) ethnographic account also highlights that perceived autonomy is especially valued by Uber drivers as it contrasts with the 'authoritarian stricters' of many other low-end jobs. In fact, recent research in the local gig economy has also started to investigate how differences in

platform work organization can shape grievances and mobilization (Lei, 2021). Subordinated agency might, then, also find some application in analyses of antagonisms in the local gig economy.

In fact, subordinated agency could be considered an instance of what Vallas and Schor (2020) call the ‘permissive potentate’ nature of platforms in general. Vallas and Schor (2020) argue that platform governance entails delegating dimensions of control to other parties while retaining authority over important functions. The investigation of subordinated agency in both the local gig economy as well as the wider platform economy is thus an important direction for future research raised by this article.

Acknowledgments

We would like to thank the two anonymous reviewers and Stefan Kirchner, in his role as editor, for their numerous suggestions which helped shape the article. We are also indebted to Paul Edwards, John Kelly and the late Willy Brown for comments on an early draft of this article. This research has been presented at numerous conferences and seminars, including BUIRA 2017, SASE 2018 and LERA 2019, and we would like to thank all those who provided us with encouragement and comments at these various events.

Funding

This work was supported by the European Research Council (ERC) Horizon 2020 grant agreement number 639652.

Supplementary material

[Supplementary material](#) is available at *SOCECO* Journal online.

References

- Ackroyd, S. and Thompson, P. (1999) *Organizational Misbehaviour*, London, Sage.
- Alberti, G. (2014) ‘Mobility Strategies, “Mobility Differentials” and “Transnational Exit”: The Experiences of Precarious Migrants in London’s Hospitality Jobs’, *Work, Employment and Society*, 28, 865–881.
- Antcliff, V., Saundry, R. and Stuart, M. (2007) ‘The Weakness of Weak Ties—Networks and Social Capital in UK Television’, *Human Relations*, 60, 371–393.
- Anwar, M. and Graham, M. (2020) ‘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*, 52, 1269–1291.
- Aslam, Y. and Woodcock, J. (2020). ‘A History of Uber Organizing in the UK’, *South Atlantic Quarterly*, 119, 412–421.
- Barley, S. R. and Kunda, G. (2006) *Gurus, Hired Guns, and Warm Bodies: Itinerant Experts in a Knowledge Economy*, Princeton, Princeton University Press.
- Behling, F. and Harvey, M. (2015) ‘The Evolution of False Self-Employment in the British Construction Industry: A neo-Polanyian account of Labour Market Formation’, *Work, Employment and Society*, 29, 969–988.

- Bloodworth, J. (2018) *Hired: Six Months Undercover in Low-Wage Britain*, London: Atlantic Books.
- Brock, J. (2019) *Getting Organised Low-Paid Self-Employment and Trade Unions*, London, The Fabian Society.
- Bryman, A. (2008) *Social Research Methods*, Oxford, Oxford University Press.
- Butler, B., Joyce, E. and Pike, J. (2008) 'Don't Look Now, but We've Created a Bureaucracy: The Nature and Roles of Policies and Rules in Wikipedia', *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, Florence, ACM, pp. 1101–1110.
- Cant, C. (2019) *Riding for Deliveroo: Resistance in the New Economy*, Cambridge, Polity.
- Carruth, P. A. (2019) 'Collective Action Spillover and Alternative Organizations: The Influence of Piquetero Protest Activity on Worker-Recuperated Businesses in Argentina, 1998', *Socio-Economic Review*, 17, 63–80.
- Charmaz, K. (2006) *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*, London, SAGE.
- Corporaal, G. F. and Lehdonvirta, V. (2017) *Platform Sourcing: How Fortune 500 Firms Are Adopting Online Freelancing Platforms*, Oxford, Oxford Internet Institute.
- Crouch, C. (2019) *Will The Gig Economy Prevail?* Cambridge, Polity.
- Davis, G. F. (2016) *The Vanishing American Corporation: Navigating the Hazards of a New Economy*, San Francisco, Berrett-Koehler Publishers.
- Doellgast, V. and Greer, I. (2007) 'Vertical Disintegration and the Disorganization of German Industrial Relations', *British Journal of Industrial Relations*, 45, 55–76.
- Duggan, J., Sherman, U., Carbery, R. and McDonnell, A. (2020) 'Algorithmic Management and App-Work in the Gig Economy: A Research Agenda for Employment Relations and HRM', *Human Resource Management Journal*, 30, 114–132.
- Edwards, B. and McCarthy, J. D. (2004) 'Resources and Social Movement Mobilization'. In Snow, D. A., Soule, S. A. and Kriesi, H. (eds) *The Blackwell Companion to Social Movements*, Oxford, Blackwell Publishing, pp. 116–152.
- Edwards, P. K. (1986) *Conflict at Work: A Materialist Analysis of Workplace Relations*, Oxford, Basil Blackwell.
- Edwards, P. K. (2003) 'The Employment Relationship and the Field of Industrial Relations'. In Edwards, P. K. (ed.) *Industrial Relations: Theory and Practice*, 2nd edn, London, Blackwell, pp. 1–36.
- Eisenmann, T., Parker, G. and Van Alstyne, M. (2006) 'Strategies for Two-Sided Markets', *Harvard Business Review*, October 2006.
- Englert, S., Woodcock, J. and Cant, C. (2020) 'Digital Workerism: Technology, Platforms, and the Circulation of Workers' Struggles', *Triplec: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society*, 18, 132–145.
- Evans, D. S. (2003) 'Some Empirical Aspects of Multi-Sided Platform Industries', *Review of Network Economics*, 2, 191–209.
- Evans, D. S. (2012) 'Governing Bad Behavior by Users of Multi-Sided Platforms', *Berkeley Technology Law Journal*, 2, 1202–1249.
- Fantasia, R. (1988) *Cultures of Solidarity: Consciousness, Action, and Contemporary American Workers*, Berkeley, CA, University of California Press.
- Flanders, A. (1975 [1970]) *Management and Unions: The Theory and Reform of Industrial Relations*, London, Faber and Faber.
- Fligstein, N. and McAdam, D. (2019) 'States, Social Movements and Markets', *Socio-Economic Review*, 17, 1–6.
- Gandini, A. (2019) 'Labour Process Theory and the Gig Economy', *Human Relations*, 72, 1039–1056.

- Gawer, A. (2014) 'Bridging Differing Perspectives on Technological Platforms: Toward an Integrative Framework', *Research Policy*, **43**, 1239–1249.
- Gegenhuber, T., Ellmer, M. and Schüßler, E. (2020) 'Microphones, Not Megaphones: Functional Crowdworker Voice Regimes on Digital Work Platforms', *Human Relations* (<https://journals.sagepub.com/doi/full/10.1177/0018726720915761>) [accessed 7 April 2021].
- Gerber, C. (2020) 'Community Building on Crowdwork Platforms: Autonomy and Control of Online Workers?', *Competition & Change* (<https://journals.sagepub.com/doi/10.1177/1024529420914472>) [accessed 7 April 2021].
- Gerber, C. and Krzywdzinski, M. (2019) 'Brave New Digital Work? New Forms of Performance Control in Crowdwork'. In Vallas, S. and Kovalainen, A. (eds) *Work and Labor in the Digital Age. Research in the Sociology of Work*, vol. 33. Bingley, Emerald, pp. 121–143.
- Gottfried, H. (1992) 'In the Margins: Flexibility as a Mode of Regulation in the Temporary Help Service Industry', *Work, Employment and Society*, **6**, 443–460.
- Gray, M. L., Suri, S., Ali, S. S. and Kulkarni, D. (2016) 'The crowd is a collaborative network', *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing Pages*, San Francisco, CA, USA, February 27–March 02.
- Graef, I., Verschakelen, J. and Valcke, P. (2013) 'Putting the Right to Data Portability into a Competition Law Perspective', *Law: The Journal of the Higher School of Economics*, **2013**, 53–63.
- Gupta, N., Martin, D., Hanrahan, B. V. and O'Neil, J. (2014) 'Turk-life in India', *Proceedings of the ACM International Conference on Supporting Group Work (GROUP'14)* Sanibel Island, November 9–12.
- Heckscher, C. and McCarthy, J. (2014) 'Transient Solidarities: Commitment and Collective Action in Post-Industrial Societies', *British Journal of Industrial Relations*, **52**, 627–657.
- Heery, E. (2009) 'Trade Unions and Contingent Labour', *Cambridge Journal of Regions, Economy and Society*, **2**, 429–442.
- Heery, E., Conley, H., Delbridge, R. and Stewart, P. (2004) 'Beyond the Enterprise: Trade Union Representation of Freelance Workers in the UK', *Human Resource Management Journal*, **14**, 20–35.
- Heyes, J. and Hastings, T. (2017) *The Practices of Enforcement Bodies in Detecting and Preventing Bogus Self-Employment, European Platform Undeclared Work*, Brussels, Brussels, European Commission.
- Hirschman, A. O. (1970) *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*, Cambridge, MA, Harvard University Press.
- Hodder, A., Williams, M., Kelly, J. and McCarthy, N. (2017) 'Does Strike Action Stimulate Trade Union Membership Growth?', *British Journal of Industrial Relations*, **55**, 165–186.
- Holst, H. (2014) '“Commodifying Institutions”: Vertical Disintegration and Institutional Change in German Labour Relations', *Work, Employment and Society*, **28**, 3–20.
- Howcroft, D. and Bergvall-Kåreborn, B. (2019) 'A Typology of Crowdwork Platforms', *Work, Employment and Society*, **33**, 21–38.
- Irani, L. and Silberman, M. S. (2013) 'Turkopticon: Interrupting Worker Invisibility in Amazon Mechanical Turk', *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, Paris, France, pp. 611–620.
- Ivanova, M., Bronowicka, J., Kocher, E. and Degner, A. (2018) 'The App as a Boss?', *Control and Autonomy in Application-Based Management*. Frankfurt (Oder), European University Viadrina Frankfurt (Oder).
- Jansen, G. (2014) 'Effects of Union Organization on Strike Incidence in EU Companies', *Ilr Review*, **67**, 60–85.

- Jansen, G. (2020) 'Solo Self-Employment and Membership of Interest Organizations in The Netherlands: Economic, Social, and Political Determinants', *Economic and Industrial Democracy*, **41**, 512–539.
- Jansen, G., Akkerman, A. and Vandaele, K. (2017) 'Undermining Mobilization?', *Economic and Industrial Democracy*, **38**, 99–117.
- Jarley, P. (2005) 'Unions as Social Capital: Renewal through a Return to the Logic of Mutual Aid?', *Labor Studies Journal*, **29**, 1–26.
- Johnston, H. and Land-Kazlauskas, C. (2019) 'Organizing On-Demand: Representation, Voice, And Collective Bargaining in the Gig Economy', *Conditions of Work and Employment Series* No. 94, Geneva, ILO.
- Kässi, O. and Lehdonvirta, V. (2018) 'Online Labour Index: Measuring the Online Gig Economy for Policy and Research', *Technological Forecasting and Social Change*, **137**, 241–248.
- Kässi, O. and Lehdonvirta, V. (2019) *Do Digital Skills Certificates Help New Workers Enter the Market? Evidence from an Online Labour Platform*, CESifo Working Paper No. 7810, Munich, CESifo.
- Kellogg, K. C., Valentine, M. and Christin, A. (2020) 'Algorithms at Work: The New Contested Terrain of Control', *Academy of Management Annals*, **14**, 366–410.
- Kelly, J. (1998) *Rethinking Industrial Relations: Mobilisation, Collectivism and Long Waves*, London, Routledge.
- Kirchner, S. and Schüßler, E. (2019) 'The Organization of Digital Marketplaces: Unmasking the Role of Internet Platforms in the Sharing Economy'. In Ahrne, G. and Bunsson, N. (eds) *Organization outside Organizations: The Abundance of Partial Organization in Social Life*, Cambridge, Cambridge University Press, pp. 131–154.
- Kirchner, S. and Schüßler, E. (2020) 'Regulating the Sharing Economy: A Field Perspective'. In Maurer, I., Mair J. and Oberg, A. (eds) *Theorizing the Sharing Economy: Variety and Trajectories of New Forms of Organizing: Research in the Sociology of Organizations*, Vol. **66**, Bingley, Emerald, pp. 215–236.
- Lehdonvirta, V. (2016) 'Algorithms that Divide and Unite: Delocalisation, Identity and Collective Action in "Microwork"'. In Flecker J (ed.) *Space, Place and Global Digital Work: Dynamics of Virtual Work*, London, Palgrave Macmillan, pp. 53–80.
- Lehdonvirta, V. (2018) 'Flexibility in the Gig Economy: Managing Time on Three Online Piecework Platforms', *New Technology, Work and Employment*, **33**, 13–29.
- Lehdonvirta, V., Kässi, O., Hjorth, I., Bernard, H. and Graham, M. (2019) 'The Global Platform Economy: A New Offshoring Institution Enabling Emerging-Economy Microproviders', *Journal of Management*, **45**, 567–599.
- Lee, M. K. et al. (2015) 'Working with machines: the impact of algorithmic, data-driven management on human workers', *Proceedings of the 33rd Annual ACM SIGCHI Conference*, Seoul, South Korea, 18–23 April.
- Lei, Y.-W. (2021). 'Delivering Solidarity: Platform Architecture and Collective Contention in China's Platform Economy'. *American Sociological Review* (<https://doi.org/10.1177/0003122420979980>) [accessed 7 April 2021].
- Maffie, M. D. (2020) 'The Role of Digital Communities in Organizing Gig Workers', *Industrial Relations: A Journal of Economy and Society*, **59**, 123–149.
- Malone, T. W., Yates, J. and Benjamin, R. I. (1987) 'Electronic Markets and Electronic Hierarchies', *Communications of the ACM*, **30**, 484–497.
- Margetts, H., John, P., Hale, S. and Yasseri, T. (2015) *Political Turbulence: How Social Media Shape Collective Action*, Oxford, Oxford University Press.
- Martin, D. et al. (2014) 'Being a Turker', *Proceedings of the 17th ACM Conference on Computer-Supported Cooperative Work and Social Computing*, Baltimore, MD, USA, February, 15–19.

- Morgan, G. and Pulignano, V. (2020) 'Solidarity at Work: Concepts', *Levels and Challenges, Work, Employment and Society*, **34**, 18–34.
- Müller-Birn, C., Dobusch, L. and Herbsleb, J. D. (2013) 'Work-to-Rule: The Emergence of Algorithmic Governance in Wikipedia', *Proceedings of the 6th International Conference on Communities and Technologies*. ACM. Munich Germany, June 29 – July 02.
- Newlands, G., Lutz, C. and Fieseler, C. (2018) 'Collective Action and Provider Classification in the Sharing Economy', *New Technology, Work and Employment*, **33**, 250–267.
- O'Brady, S. (2021) 'Fighting Precarious Work with Institutional Power: Union Inclusion and Its Limits across Spheres of Action', *British Journal of Industrial Relations* (<https://onlinelibrary.wiley.com/doi/abs/10.1111/bjir.12596>) [accessed 7 April 2021].
- OECD. (2000) *Employment Outlook 2000*, Paris, OECD.
- Oyer, P. (2016) *The Independent Workforce in America*, Stanford, CA, Stanford University Graduate School of Business.
- Pallais, A. (2014) 'Inefficient Hiring in Entry-Level Labor Markets', *American Economic Review*, **104**, 3565–3599.
- Panteli, N., Rapti, A. and Scholarios, D. (2020) 'If He Just Knew Who We Were': Microworkers' Emerging Bonds of Attachment in a Fragmented Employment Relationship', *Work, Employment and Society*, **34**, 476–494. <https://doi.org/10.1177/0950017019897872> [accessed 7 April 2021].
- Peck, J. and Theodore, N. (1998) 'The Business of Contingent Work: Growth and Restructuring in Chicago's Temporary Employment Industry', *Work, Employment and Society*, **12**, 655–674.
- Pesole A., Urzì Brancati M. C., Fernández-Macías, E., Biagi, F. and González Vázquez, I. (2018) *Platform Workers in Europe*, JRC Science for Policy Report, Brussels, European Commission.
- Prassl, J. (2018) *Humans as a Service: The Promise and Perils of Work in the Gig Economy*, Oxford, Oxford University Press.
- Putnam, R. D. (2000) *'Bowling Alone': The Collapse and Revival of American Community*, New York City, Simon & Schuster.
- Rochet, J. C. and Tirole, J. (2003) 'Platform Competition in Two-Sided Markets', *Journal of the European Economic Association*, **1**, 990–1029.
- Rosenblat, A. and Stark, L. (2016) 'Algorithmic Labor and Information Asymmetries: A Case Study of Uber's Drivers', *International Journal of Communication*, **10**, 3758–3784.
- Rothstein, S. (2019) 'Unlikely Activists: Building Worker Power under Liberalization', *Socio-Economic Review*, **17**, 573–602.
- Salehi, N. et al. (2015) 'We Are Dynamo: Overcoming Stalling and Friction in Collective Action for Crowd Workers', CHI '15: Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems, Association for Computing Machinery, New York, NY, USA, April, pp. 1621–1630.
- Saundry, R., Stuart, M. and Antcliff, V. (2012) 'Social Capital and Union Revitalization: A Study of Worker Networks in the UK Audio-Visual Industries', *British Journal of Industrial Relations*, **50**, 263–286.
- Shevchuk, A. and Strebkov, D. (2018) 'Safeguards against Opportunism in Freelance Contracting on the Internet', *British Journal of Industrial Relations*, **56**, 342–369.
- Sisson, K. (2008) *Putting the Record Straight: Industrial Relations and the Employment Relationship*, *Warwick Papers in Industrial Relations* No. 88 April, Coventry, Industrial Relations Research Unit, University of Warwick.
- Smith, C. (2006) 'The Double Indeterminacy of Labour Power: Labour Effort and Labour Mobility', *Work, Employment and Society*, **20**, 389–402.
- Soriano, C. R. R. and Cabañes, J. V. A. (2020) 'Entrepreneurial Solidarities: Social Media Collectives and Filipino Digital Platform Workers', *Social Media + Society*, **6**, <https://doi.org/10.1177/2056305120926484> [accessed April 7 2021].

- Srnicek, N. (2017) *Platform Capitalism (Theory Redux)*, Cambridge, Polity.
- Srnicek, N. (2018) 'Platform Monopolies and the Political Economy of AI'. In McDonnell, J. (ed.) *Economics for the Many*, London, Verso.
- Tapia, M., Ibsen, C. L. and Kochan, T. A. (2015) 'Mapping the Frontier of Theory in Industrial Relations: The Contested Role of Worker Representation', *Socio-Economic Review*, **13**, 157–184.
- 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**, 35–54.
- Vaughan, D. (1992) Theory Elaboration: The Heuristics of the Case Analysis. In Ragin, H. and Becker, S. (eds) *What is a Case? Exploring the Foundations of the Social Inquiry*. Cambridge, Cambridge University Press, pp. 173–202.
- Vallas, S. P. and Schor, J. B. (2020) 'What Do Platforms Do? Understanding the Gig Economy', *Annual Review of Sociology*, **46**, 273–222.
- Ward, K., Grimshaw, D., Rubery, J. and Beynon H. (2001) 'Dilemmas in the Management of Temporary Work Agency Staff', *Human Resource Management Journal*, **11**, 3–21.
- Watson, T. J. (2008) *Sociology, Work and Industry: Fifth Edition*, Abingdon (UK), Routledge.
- Weil, D. (2014) *The Fissured Workplace: Why Work Became so Bad, for so Many and What Can Be Done to Improve It*, Boston, Harvard University Press.
- Wood, A. J. (2015) 'Networks of Injustice and Worker Mobilisation at Walmart', *Industrial Relations Journal*, **46**, 259–274.
- Wood, A. J., Graham, M., Lehdonvirta, V. and Hjorth, I. (2019a) 'Good Gig, Bad Gig: Autonomy and Algorithmic Control in the Global Gig Economy', *Work, Employment & Society*, **33**, 56–75.
- Wood, A. J., Graham, M., Lehdonvirta, V. and Hjorth, I. (2019b) 'Networked but Commodified: The (Dis)embeddedness of Digital Labour in the Gig Economy', *Sociology*, **53**, 931–950.
- Wood, A. J., Lehdonvirta, V. and Graham, M. (2018) 'Workers of the Internet Unite? Online Freelancer Organisation in Six Asian and African Countries', *New Technology, Work and Employment*, **33**, 95–112.
- Wood, A. J. and Lehdonvirta, V. (2021) 'Platform Precarity: surviving algorithmic insecurity in the gig economy', Working paper for the 'AI at Work: Automation, Algorithmic Management, and Employment Law' Online Workshop at the University of Sheffield, 31st March 2021. (<http://dx.doi.org/10.2139/ssrn.3795375>) [accessed 7 April 2021].
- Yin, M., Gray, M. L., Suri, S. and Vaughan, J. W. (2016) 'The communication network within the crowd', *Proceedings of the 25th International World Wide Web Conference (WWW)*, April 11, Montreal, Canada.