

Labour geographies of the platform economy: Understanding collective organizing strategies in the context of digitally mediated work

Hannah JOHNSTON*

Abstract. *The article examines the geographies of collective labour struggle in the platform economy. It distinguishes between the unique spatial features associated with place-based work and crowdwork to examine the divergent collective organizing strategies developed therein. Taking works councils, collective bargaining and multi-enterprise agreements as three examples of social dialogue, the article considers why different types of platform workers gravitate towards particular strategies, analyses the regulatory frameworks within which these workers' collective struggles are bound, and assesses the propensity for these expressions of solidarity to improve the terms and conditions of platform work.*

Keywords: *labour geography, platform economy, collective bargaining, social dialogue, future of work.*

The emergence of digital platforms presents distinctive geographic features to which workers' collective organizing efforts must respond. While much of the quotidian work facilitated by digital labour platforms is not new, jobs are being organized in new ways. For workers seeking to influence the terms and conditions under which they labour, trends including high levels of precarity, workplace fragmentation, digitization, and self-employment have been catalysts for collective organization.

The platform economy is proving to be the most recent chapter in the labour movement's long history of renewal, wherein collective organizing models have been successively adapted to better respond to changes in the organizational management of work. In each instance, expressions of worker solidarity

* Department of Geography and Planning, Queen's University, Ontario, email: 8hesj@queensu.ca. This article was written while the author was a Technical Officer in the Research Department of the ILO. The author would like to thank Uma Rani, Chris Land-Kazlauskas, John Holmes and three anonymous reviewers for their comments and feedback on earlier versions of this article.

Responsibility for opinions expressed in signed articles rests solely with their authors, and publication does not constitute an endorsement by the ILO.

– be they trade unions, worker centres, guilds, or others – have had a geography. During the Industrial Revolution, for example, technological innovation reshaped workplaces, centralizing production and deskilling labour through assembly lines and automation. Workers responded by changing the architecture and composition of their collective organizations. Formerly dominant craft unions, characterized by highly and homogeneously skilled craft workers, gave way to industrial unions where workers with varied occupations united on the basis of their common employer (Visser, 2012). Later, in regions like North America and parts of Europe, bargaining was decentralized to the firm level (rather than remaining centrally coordinated at a national or industry level) to accommodate employers’ need for international and flexible production (Eaton and Kriesky, 1998; Hendricks and Kahn, 1982). In response, industrial unions developed strategies like pattern bargaining in order to leverage their power more effectively in dispersed yet entwined production systems (Eaton and Kriesky, 1998; Holmes, 2004).

The growth of the service sector in the 1980s and 1990s similarly ushered in a host of trade union innovations (Wial, 1993). Responding to changes in worker demographics and the trend towards greater fragmentation of the workplace, concepts like community unionism emerged to unite workers on the basis of shared identity or residency (Black, 2005). In these cases, unions sometimes reached beyond their own membership, and tried to furnish local residents with employer-provided commitments to local hiring, training or other community initiatives (Tufts, 2016). While each of these configurations exhibited different spatial features, workers’ organizations remained resolved that by removing wages and working conditions from competition, workers would be in a better position to shape economic landscapes pursuant to their own interests (rather than to those of capital). This goal persists in the era of digital labour platforms.

Though the content of work performed on and through digital labour platforms is extremely heterogeneous, two distinct patterns have emerged regarding how platform-facilitated work is spatially organized: “crowdwork” and “work-on-demand via apps” (De Stefano, 2016). Crowdwork takes place online and can connect vast numbers of customers and workers across large distances. Tasks associated with this type of work include translation, data entry and product reviews, and many jobs can be broken down into micro-tasks for distribution among large groups of workers (Berg et al., 2018). As digitally based work, these jobs can often be completed from anywhere provided workers have sufficient Internet connectivity. Crowdworkers thus hail from vastly different geographies and are thrown into the same labour market that is “both fixed in a distinct digital location, and simultaneously accessible from anywhere” (Graham, 2015, p. 870), creating the illusion of a planetary workforce (Graham and Anwar, 2019). Work-on-demand via apps (herein, place-based work), on the other hand, is platform-facilitated but geographically bound – or, as Huws (2014) puts it, “geographically sticky”. Workers and customers are connected via platforms, but tasks are performed in person and cannot be easily offshored (e.g. domestic work, food delivery, grocery shopping and transportation services).

Building on the concepts of crowdwork and place-based work, this article examines the distinct geographies of platform workers’ collective organizing responses. It highlights three different social dialogue strategies that workers have

used to advance their interests in order to achieve lasting gains: works councils, collective bargaining and multi-enterprise agreements. An analysis of these efforts shows that workers are actively engaged in attempts to advance their political and economic goals, and in a struggle to identify or establish a regulatory framework (and subsequently regulation) that can uphold their collective achievements. While the former objective would be anticipated in any labour movement, the latter is symptomatic of the lacunae of current regulation in respect of those working in the platform economy and the possible need for new labour market institutions. Indeed, while social dialogue, and collective bargaining in particular, can be a mechanism for regulating work, they are typically carried out within a framework of rules determined nationally or internationally (Doellgast and Benassi, 2014). In the absence of clear parameters governing working conditions and industrial relations, platform workers must determine the appropriate venue to frame their struggles and voice their collective claims in order to ensure the longevity of their movements and achievements.

This article sheds light on how a geographic perspective can enhance the understanding of platform workers' collective organizing, including why workers gravitate towards particular expressions and strategies. It primarily draws on North American and European case studies that highlight the spatial peculiarities of digital labour platforms and the regulation of platform-based work. Focusing on these regions and case studies reveals how existing social dialogue mechanisms (such as works councils and collective bargaining) are being adapted to the platform economy and how industrial relations actors are developing new regulatory instruments, such as multi-enterprise agreements. The article also considers the spatial features of social dialogue in the platform economy, including whether efforts are centralized at a national or international level, or decentralized through local implementation at the enterprise or work-site level (Katz, 1993; Visser, 2002 and 2016).

The analysis herein is informed by the sub-discipline of labour geography, which views workers as agents capable of creating economic landscapes reflective of their interests. While early attempts were made to understand how digital platform work is spatially organized, the coordinated actions of workers, which can be understood as spatial phenomena unto themselves (Coe and Jordhus-Lier, 2016), have thus far been insufficiently examined in the context of the platform economy. Contested views between labour and capital over how economic landscapes ought to be spatially organized can thus be understood as a struggle over how material investments are embedded (or not) in the landscape (Herod, 2002). Unsurprisingly, workers and capital often have different geographic visions, and the struggle to realize these visions is thus integrally tied to the political, associational and structural power that workers can employ.

The remainder of this article is structured into three sections. The first draws on existing literature that examines how platform work is spatially organized and argues that these features directly influence the labour geographies of platform workers. The second section presents three strategies that workers have used in their pursuit of platform economy regulation, namely, works councils, collective bargaining and multi-enterprise agreements. These particular strategies are being highlighted because they are cases in which platforms and workers have engaged in social dialogue, demonstrating a willingness to negotiate

the terms and conditions of work. The presentation of each of these strategies features a particular case study that discusses why the strategy was adopted by either crowdworkers or place-based workers and outlines its strengths and challenges. The third section presents the conclusion, which reiterates how a geographic analysis can enhance our understanding of the platform economy, worker organizing and regulation. This section also considers relevant international proposals of the ILO's independent Global Commission on the Future of Work that seek to ensure decent working conditions on platforms. While this article is primarily a product of desk research, it is part of a longer research project on the topic, which has included extensive interviews with workers, trade unions, employers' organizations and regulators (Johnston and Land-Kazlauskas, 2019). The insights gained through previous research are underpinned by a strong understanding of the social, political and economic contexts from which workers' organizing strategies emerge.

1. The geographies of platform work

Differences in the spatial organization of place-based work and crowdwork have implications for the way in which we conceptualize the workplace and regulate work. They also impact whether and how workers identify their shared interests, cultivate solidarity and organize themselves.

This article contends that place-based workers and crowdworkers have developed divergent strategies in their efforts to identify a suitable regulatory framework or arbiter for their collective claims. These alternate approaches are attributable to differences in the spatial organization of platform work and the extent to which the organization of work maps on to existing labour and industrial relations regulations. As described by Swyngedouw (2004), regulation is embedded in geographical–institutional arrangements that can be structured on various levels, whether local or regional, national or transnational (for example, the European Union). Place-based platform workers predominately labour within areas that are defined similarly to existing regulatory frameworks and can thus voice their claims within available venues. This yields highly heterogeneous local struggles by place-based workers as their strategies and practices tend to be informed by local histories and cultures (Doellgast and Benassi, 2014). The evidence suggests that where mechanisms that workers employ to achieve their collective gains are well integrated into local industrial relations frameworks, workers are more likely to succeed. Crowdworkers, conversely, are engaged in labour that maps poorly on to existing regulation and have thus found their greatest success in establishing new frameworks capable of transcending national borders. While the levels at which place-based platform workers and crowdworkers seek to regulate industrial relations and working conditions differ, both are attuned to how their platform work they do is spatially informed, including the scope of their particular labour markets.

The spatial organization of crowdwork as described by Graham and Anwar, is far-reaching. It “does not necessarily require proximity between the worker, the work itself, and the site of the immediate delivery of the work. The relative lack of fixed organisational infrastructure needed for the online outsourcing sec-

tor means that it can be characterised by a broad geographic spread” (2019). Unlike delocalized work that is relocalized elsewhere (for example, the outsourcing of traditional manufacturing), Lehdonvirta argues that when work is detached from local institutions and redistributed to a dispersed workforce, it creates the illusion of “‘placelessness’, or a lack of embeddedness in particular spaces or territories” (2016, p. 59). Under these spatial arrangements, crowdwork effectively decouples production from particular times and places (Richardson, 2015). This creates the appearance of workplace obsolescence. For workers, this process is also associated with a heightened sense of isolation (Wood, Lehdonvirta and Graham, 2018) and can fuel workers’ fears of replaceability.

Conceiving of crowdwork as placeless has a direct bearing on regulatory trajectories. Proponents of digital labour platforms have seized this argument as evidence that crowdwork is beyond regulation. For example, the Confederation of German Employers’ Associations (BDA) contends that “[c]rowd-working and crowd-sourcing are new forms of freely organised activity and free cooperation in the Internet which cannot be captured in law. Neither are these forms of employment that can be regulated in any way. A need for action in law or negotiated agreement does not appear to be a given, not least because national or even regional provisions would be unenforceable” (BDA, 2015, p. 6). Here, the Internet is conceived of as a distinct yet seemingly intangible space that does not map cleanly on to existing regulatory regimes. Consequently, the placelessness of crowdworking becomes a justification for the absence of intervention. However, while the spatial organization of crowdwork does raise complicated jurisdictional issues when it comes to rights, regulation and enforcement (Cherry, 2019; on geography and rights see Blomley and Pratt, 2001), we must be wary that BDA’s claims of incompatibility between law and crowdwork are well aligned with longstanding neoliberal efforts to roll back regulation generally.

The presupposed irreconcilability between referential geographical–institutional jurisdictions (which, for labour rights, are commonly embedded at a national or regional level) and crowdworking suggests an abstraction of cyberspace. Unlike spaces with a designated locality that can be regulated through law and norms (Wilson, 2011; Lefebvre, 1991), more elusive spaces – like that of the Internet – decouple how we conceive of space from the material realities of everyday life. Within capitalist systems, this “works to obscure the social processes between individuals – the economic processes, the political processes, the labour processes, the processes of social inequality” (Jones and Popke, 2010, p. 121). Locating the platform economy in the intangible and abstract space of the “cloud” fuels the notion that the spatiality of crowdwork is equally elusive and abstract. This obfuscates the lived realities of crowdworkers who labour in their homes, in cafes and local libraries, in front of screens, doing jobs that are often less than decent.

For crowdworkers pursuing regulation through collective organizing, the absence of a shared locality can also present significant obstacles to establishing common interests, a key precursor to enacted collective agency. While scholars have observed that “[o]rganising those who work online is a much more difficult challenge as these workers are harder to identify, reach and unite” (Lenaerts, Kilhoffer and Akgüç, 2018, p. 71), examples of mutual aid between crowdworkers

have been identified (see Wood, Lehdonvirta and Graham, 2018). Additionally, the spatial dispersion of digital work can also curtail workers' ability to cultivate a shared class or occupational identity – both regarded as potential bases for solidarity and collective action (Lehdonvirta, 2016).

The experiences of place-based workers can mimic some of the challenges faced by crowdworkers, such as high levels of isolation, competition and the lack of a shared workplace. However, the labour performed by place-based workers is locally embedded, which presumes the existence of a local labour market. This, in turn, tends to resolve many jurisdictional questions. Despite the clear “locality” of their work, researchers readily document difficulty in contacting these workers and many recruit research participants by hiring them through the very platforms they seek to study (Ravenelle, 2017; Rosenblat, 2018; Rayle et al., 2016). Such methodologies suggest that even though the labour of place-based workers is locally embedded, the spatial fragmentation of their workplaces and high levels of mobility – either on the job or between jobs – can make them difficult to locate.

Though digital labour platforms can augment workplace fragmentation and isolation, in industries long characterized by these challenges, platforms may also standardize the work experience by establishing uniform management practices or working conditions. This, in turn, could create a greater commonality of experience, incite collective action and encourage workers to coordinate resistance across geographies by scaling up their expressions of solidarity from locally embedded struggles to national or international movements. Early evidence of the upscaling of worker action can be observed in the global Uber strikes that took place in May 2019 across the United States, days before the company's public listing on the New York Stock Exchange (Sainato and Paul, 2019). Historically, taxi regulations determining fare rates and industry standards were established on a local or regional basis and, while drivers did organize collectively, it was traditionally within the scope of these local geographies (see, for example, Dubal, 2017; Mathew, 2008; Johnston, 2018). With global firms like Uber, however, drivers from disparate geographies were, for the first time, presented with a singular counterpart against which they could voice collective grievances about issues such as the company's non-transparent dispatch and pricing systems. In recent years, there have been examples of widespread dissatisfaction and of protests, organized independently by drivers in places as far-flung as Argentina, Japan and India (ITF Global, 2016; BBC, 2016; Sen, 2019). The May protests, however, exhibited heightened levels of coordination as workers conducted simultaneous job actions in the United States, the United Kingdom, Chile, Panama, Costa Rica, Uruguay and elsewhere (CNN Chile, 2019), ostensibly for increased impact.

2. Organizing strategies: Spatial considerations, institutions and regulatory frameworks

While both crowdworkers and place-based platform workers demonstrate labour solidarity, the geographies of their collective expressions are distinct. On the one hand, this is attributed to the fact that workers tend to voice their collective claims where they work and using their tools of the trade; crowdwork-

ers frequently use computers to gather online in forums and on social media, while place-based workers frequently meet in airport parking lots, city parks and on street corners, connecting through word of mouth or via mobile phones (Chen, 2018; Wood, Lehdonvirta and Graham, 2018). The scale of expressions of solidarity also mirrors labour market patterns; place-based workers are predominately engaged locally or nationally, while crowdworkers attempt to build more geographically expansive forms of solidarity.

The capacity for expressions of collective solidarity to improve wages and working conditions is additionally influenced by labour regulation frameworks, which can uphold or obstruct workers' collective rights (Doellgast and Benassi, 2014). Regulation outlines processes like collective bargaining, provides mechanisms for enforceability and, importantly, serves as a canvas within which workers' struggles are framed. Digital labour platforms, however, have both outpaced (Howcroft and Bergvall-Kåreborn, 2019) and, particularly in the case of crowdwork, gone beyond existing regulation (Cherry, 2019).

Coping with the challenge of variable or absent regulation has not been uniform. Place-based platform workers can craft expressions of collective solidarity to fit within existing local or national regulations and industrial relations frameworks, thus emphasizing the locally embedded nature of their jobs. This has yielded a heterogeneous landscape where expressions of workers' solidarity vary geographically, where social dialogue tends towards decentralization, and where outcomes vary according to the willingness (or capability) of the platform to engage. Conversely, given the transnational organization of crowdwork, crowdworkers are seeking to establish new regulatory frameworks that enable them to overcome the spatial challenges posed by their dis-embedded work. In this case dialogue is centralized, though similarly limited to willing partners. In the absence of adequate regulation, there have also been collective efforts to reform existing, or introduce new, legislation to improve working conditions and wages; a review of these efforts, however, is beyond the scope of this article as they are often a product of campaigns rather than social dialogue.¹

This section highlights three major collective organizing strategies where workers have attempted to engage in dialogue with platforms, with the purpose of establishing regulation for the platform economy. These strategies include works councils, collective bargaining and multi-enterprise agreements. In discussing them, attention is paid to how they are, or might be, adopted differently by place-based workers or crowdworkers, the spatial features of each initiative, and what regulatory parameters exist for the enforcement of collective gains.

2.1. Works councils

Works councils are institutional arrangements through which workers and employers engage in social dialogue at the enterprise level. They may be established through legislation at national or supranational levels, through voluntary negotiated agreements or unilaterally by management. A concept with roots in European industrial relations systems, most works councils are used for

¹ For a discussion of legislative efforts, see Johnston and Land-Kazlauskas, 2019.

consultation and the exchange of information between worker representatives and management, though in some countries their mandate extends to negotiation and co-determination. The integration of industrial relations practices like works councils into legal frameworks is an important consideration when evaluating the likelihood of a strategy achieving enforceable outcomes. Cultural familiarity, meanwhile, may impact whether workers regard specific strategies as a viable avenue for change. In short, the propensity for works councils to improve conditions for platform workers depends overwhelmingly on whether and how they are integrated into local industrial relations cultures and laws.

These structures have been a legally recognized and integral part of the industrial relations fabric in Austria and Germany for the last century. In these countries, wages are commonly negotiated as part of company or industry-level agreements, while works councils provide opportunities for workers at the plant level to become involved in day-to-day decisions and have proven effective for giving workers a voice at the table (Katz, 1993). Particularly in Austria, the power of works councils extends beyond the obligations of information and consultation to include the negotiation of (or co-determination through) works agreements (Arrigo and Casale, 2010). Given the scale at which works councils have traditionally been structured, it is perhaps unsurprising that their adoption in the platform economy has primarily been explored by place-based workers whose jurisdictional bounds are defined at a similar, if not more local, scale.

In Austria, Foodora app-based delivery workers joined together in 2017 to form a works council with the support of Vida, the Austrian union representing workers in the transport and services sector. In creating the council, Foodora was legally required to recognize the entity. Early reporting on the Austrian case suggested the initiative was worker-driven, with drivers seeking surcharges for particularly difficult work (such as night work, or work in winter); insurance for bicycles and phones required for work; and a permanent mileage allowance (which reportedly represents some 10–15 per cent of total salary). According to the trade union, Vida, following the creation of the council, the next steps include a works agreement with Foodora to tackle the numerous issues raised and, ultimately, a collective agreement with the Chamber of Commerce that will cover all bicycle delivery services (Vida, 2017).² The Austrian example, however, contrasts sharply with the experience in New York City of the Independent Drivers Guild (IDG), an affiliate of the International Association of Machinists and Aerospace Workers (IAM). In that case, the works councils proved unfruitful, if not divisive. Unlike Austria, New York has neither a strong history of works councils, nor a recent history of social dialogue. On the contrary, the relationship between drivers, garage owners and industry regulators is marked by a history of conflict (Hodges, 2007; Mathew, 2008).

² Foodora's parent company, Delivery Hero, was also party to an agreement signed in Berlin in April 2018 with the German Food, Beverages and Catering Union (NGG), the Italian Federation of Workers of Commerce, Hotels, Canteens and Services (FILMCAMS-CGIL) and the European Federation of Food, Agriculture and Tourism (EFFAT) to establish a "European company" works council. While there have not yet been reports of any worker gains resulting from the agreement, it does provide an avenue for worker representation and voice (Eurofound, 2018).

Comparing the experiences of organizing and representing food delivery riders in Austria with similar efforts by the IDG underlines the importance of industrial relations laws and traditions, which are both inherently geographical. Uber and Foodora workers share significant similarities in how their jobs are spatially structured and managed. Both food delivery and transportation are localized services. They are also characterized by isolated customer interactions and algorithmic management, and workers are subject to customer ratings, all of which can significantly impact earnings and working time. In both cases works councils were formed for the purpose of engaging with management to address these practices and concerns; but while there are similarities in the structure of work, Austria and the United States have little in common when it comes to the integration of works councils into the regulatory fabric. In Austria, Foodora's works council was accompanied by enforceability mechanisms, a legal provision for voice and dialogue, and a culture of co-determination. In the case of the United States, the works council was largely seen as a stepping stone towards enforceable gains (such as an eventual union drive and establishment of a collective agreement), rather than as an end in and of itself.

The IDG's works council was predicated on a five-year neutrality agreement with Uber,³ and was established independently of pre-existing driver organizing campaigns in New York and elsewhere. The benefits obtained by the IDG through this agreement included driver contact information and regular meetings with the company where the IDG could raise issues with a view to their resolution. However, even at its inception, the works council yielded few meaningful gains for workers. This is attributed, on the one hand, to concessions that the IDG made and, on the other, to how Uber's decision-making structure was spatially organized. Though Uber had agreed to participate in social dialogue with the IDG, local representatives in New York frequently cited an inability to change company policies. This happened, for example, when drivers requested that the company add a tipping option to the app, but were told that it was impossible because policies and app development were centrally coordinated in California.

The geographic separation between Uber's works council representatives and management, who were vested with the power to substantively respond to drivers' grievances, likely stalled workers' calls for improved conditions by encouraging them to participate in a process that was unlikely to result in a meaningful change. Subsequently, consequences of the recognition agreement have cast further doubts on the IDG's ability to build broad-based solidarity with dissatisfied Uber drivers. The recognition agreement, which included a "no-strike" clause, prevented the IDG from encouraging its members to participate in the May 2019 global job action of Uber drivers, who had a strong presence in New York City (Menegus, 2019). While no-strike clauses are a common concession in collective bargaining agreements, the IDG has not yet demonstrated what benefits the rank and file workers received in exchange for its forfeiture of such an important right. Ultimately, the IDG's inability to endorse collective action not only undermines drivers' associational power within

³ This notably included a provision that precluded the IDG from bringing any claims regarding worker misclassification.

New York, but also serves as the most recent example of how Uber successfully pits drivers against one another (for other examples, see Rosenblat, 2018). Despite these obstacles, the IDG has engaged in actions that have resulted in meaningful change at a local level. However, these achievements, which include the introduction of a tipping option on the Uber app, have been made through the introduction of local ordinances – a longstanding strategy of the New York Taxi Worker Alliance (Johnston, 2018) – and not through social dialogue facilitated by the IDG works council.

Works councils can prove an effective mechanism to achieve collective gains for place-based workers. However, as the contrasting cases above illustrate, geography matters. Where the institution is supported by a solid legal and regulatory framework, where it is engrained in the industrial relations tradition and is thus more likely to be accepted by both workers and employers, and where the social partners have experience of dialogue in good faith, works councils are more likely to produce concrete results. In contrast, where there are no set rules defining the role and functions of the institution, and where the parties lack experience in its use, meaningful results are difficult to achieve. Again, this illustrates the importance of place and the characteristics of the prevailing industrial relations system in a particular jurisdiction.

While the use of works councils could conceivably extend to crowdwork, this would not be without challenges. On the one hand, capital associated with crowdwork is highly mobile; this can undermine workers' organizing efforts and bargaining power because firms can easily shift work elsewhere. This feature of capital mobility is a well-established pattern and has been documented in industries such as the automotive industry, where worker organizing can beget the relocation of production to regions with cheaper and more docile labour (Silver, 2014). But unlike automotive plants, which require significant capital infrastructure investments by firms, infrastructural costs associated with crowdwork are minimal and are borne by the workers, thus making it even less costly for firms to hire crowdworkers elsewhere. Indeed, digitization offers an ease of transfer that makes relocation seamless, and the planetary nature of crowdwork labour markets means that online work is already available to workers everywhere. Place-based work, conversely, is service oriented. Just as labour is locally embedded, so is market demand; thus local workers cannot be supplanted by labour elsewhere.

There are also additional challenges based on the geographic structure of works councils and the fact that they are established within a particular enterprise. While they could be structured to suit a willing crowdwork platform, the cross-jurisdictional character of crowdwork could prove a difficult obstacle to surmount. Despite these challenges, regional and even "global works councils" have been developed in certain industries (Whittall et al., 2017; Eurofound, 2019). However, experience gleaned from extant councils, such as those in the automobile industry, not only shows that the creation of global works councils would require a greater willingness on the part of platforms to engage in social dialogue, but there would also be a need to educate workers unfamiliar with works council machinery, and to develop stronger regulation to ensure that such a dialogue is meaningful.

2.2. Collective agreements

The strength of collective bargaining is that it is underpinned by legally enforceable structures and yields binding outcomes in the form of collective agreements.⁴ Platform workers, however, face obstacles in achieving collective bargaining because organized activity undertaken by independent contractors (the dominant employment classification of platform workers) is often alleged, and sometimes found, to violate antitrust laws. As a result, platform workers are often precluded from accessing collective bargaining despite the recognition of freedom of association and collective bargaining as a human right (De Stefano and Aloisi, 2019). This right is also emphasized in the ILO's 2019 Centenary Declaration for the Future of Work as applicable to all workers regardless of status. Despite these challenges, there are some cases where collective bargaining for platform workers has yielded collective agreements. In all cases, however, these successes have been realized by place-based platform workers.

One reason why collective agreements have focused on place-based platform workers is rooted in the fact that the legal provisions for collective bargaining frequently have clear geographic bounds, with legislation providing for the possibility of representation at the level of the worksite, the firm, or the industry. As actors, trade unions have been tasked with representing workers in collective agreement negotiations, and are thus similarly conceptualized as “contained” within particular spatial units such as workplaces or towns, which are viewed as discrete social and geographical entities” (Herod, Rainnie and McGrath-Champ, 2007, p. 248). However, trade union members have not always been co-located. As global supply chains grew in complexity and expanse, unions responded with new strategies to countervail the global power of transnational production networks and multinational firms (Wills, 2002); these included the development of global union federations and global framework agreements (Lévesque et al., 2018). Within the realm of global supply chains, however, local sites are still regarded as principally important for trade union campaigns, contract negotiation and enforcement – for pragmatic reasons and as the place where the “global circulation of union power” becomes resonant (Anderson, 2015). In both cases, unions’ previous attempts to achieve collective agreements for dispersed workers are of significant interest, given that platform workers are rarely co-located.

For platform workers specifically, place-based workers have been successful in achieving collective agreements and, in these cases, bargaining has been used to establish clarity on the employment relationship, bringing workers under the purview of existing industrial relations and employment regulation. The on-demand cleaning company Hilfr and Denmark's 3F trade union, for example, negotiated the first collective bargaining agreement for platform workers in 2018 (Christian, 2018). The agreement addresses mainstay contract articles including wages, compensation for work cancelled on short notice and provisions for health care and pensions. In the case of Hilfr workers, these provisions

⁴ The ILO Collective Agreements Recommendation, 1951 (No. 91), states: “Collective agreements should bind the signatories thereto and those on whose behalf the agreement is concluded. Employers and workers bound by a collective agreement should not be able to include in contracts of employment stipulations contrary to those contained in the collective agreement.” (para. 3(1)).

are offered only to platform employees, thereby leaving the looming antitrust issue unresolved.

Hilfr and 3F reconciled the potential conflict between labour and competition law by automatically transferring workers to employee status once they had worked for 100 hours unless they chose to remain self-employed. If workers opted to remain freelancers, they would not be covered by the agreement.⁵ “There was some initial concern that the cost of implementing the agreement could make the firm uncompetitive in the tight market in which on-demand services often operate. However, Hilfr experienced a 50 per cent increase in demand for cleaning services following the announcement of the contract, a fact attributed to the firm’s willingness to engage in social dialogue” (Global Deal, forthcoming). However, unlike typical collective bargaining agreements in Denmark, which are negotiated at the industry level, the Hilfr–3F agreement is enterprise-specific. This could be interpreted as a decentralization of collective bargaining, especially when compared with Swedish app Bzzt, a transport network company where part-time employees were brought under an industry-level collective agreement (Turula, 2017); or with Swedish firms Instajobs and Gigstr, which have registered as temporary employment agencies and whose workers thus fall under the temporary agency sectoral agreement (Jesnes, Ilsø and Hotvedt, 2019).

The development of collective bargaining for platform workers in Scandinavia is perhaps unsurprising, given the region’s strong history of collective bargaining generally. In Sweden, this engagement has been spearheaded by Unionen, the union representing Instajobs and Gigstr platform workers. Unionen has maintained an open mind about the development of digital labour platforms and has promoted, since 2016, regulation of digital labour platforms based on the social partner model. In the case of Instajobs and Gigstr, workers were incorporated into industry-level agreements that the union had already negotiated. Instajobs specifically indicated that it was willing to be included in the industry-level agreement because the firm felt it was helpful in attracting talented workers (Öberg, 2019). The willingness of Swedish platforms to participate in bargaining reflects existing labour market standards where some 90 per cent of employed persons work at firms or organizations covered by collective agreements (Söderqvist, 2017). The place-based nature of this work also means that all members involved in the work relationship (the worker, the app and the hiring party) are accustomed to navigating collective bargaining agreements, thus creating a sense of normalcy around the extension of collective bargaining to platform-intermediated work.

The divergent approaches between Hilfr and companies like Instajobs, Gigstr or Bzzt raise interesting questions about whether to integrate platform workers into established agreements or to develop new bargaining agreements. On one hand, this can be determined by whether and how platform firms are integrated into employers’ associations. At the same time, it may also be informed by how platform workers develop common interests with co-workers and express col-

⁵ Collective Agreement between Hilfr ApS. CBR.No.: 37297267 and 3F Private Service, Hotel and Restaurant, 2018.

lective solidarity. If workers feel more united by the tasks that they do and the content of their jobs, it may be preferable to integrate them into existing agreements where possible, whether the work takes place on platforms or not. This is particularly true if developing a new agreement is likely to decentralize bargaining, which can damage unity, create competition among workers and allow employers to pressure unions into concessions that they would otherwise deem unsuitable (Katz, 1993). On the other hand, if workers feel their occupational identity as a platform worker is unique, it may be advantageous to structure bargaining units accordingly. This distinction is, however, not likely to be a pressing concern within contexts like North America, where bargaining is already highly decentralized and is located at the enterprise or worksite level, or in developing countries, where collective bargaining rates may be generally lower.

As trade unions establish new spatial practices of organizing, they are beginning to conceive of alternate strategies for connecting with workers across vast geographies, even harnessing technology to modernize traditional union card check procedures (Zuckerman, Kahlenberg and Marvit, 2015; Renner and Schenwar, 2009). However, conflicts between antitrust and collective bargaining remain a key obstacle for the broad realization of collective agreements. This has spurred various attempts to introduce new legislation at local, regional or national levels to bolster the rights of platform workers or reaffirm their ability to engage in collective bargaining.⁶ If and when these legislative interventions are successful, they may promote unionization and bargaining among a greater number of workers.

Amidst the purported conflict between antitrust and collective bargaining, however, place-based workers have still managed to demonstrate their capacity to utilize collective bargaining agreements to enhance their working conditions and wages. These achievements, though, can be notably local and enterprise-specific, even in a country like Denmark where collective bargaining is typically carried out at the industry level. For crowdworkers, if the conflict between antitrust and bargaining can be overcome, similarities in the spatial organization of their work and that of dis-embedded digital media workers (Jaffe, 2019) suggest that unions are beginning to develop tools that can help them negotiate collective agreements for digital workplaces.

When it comes to collective bargaining, crowdworkers still face some unique challenges when compared to place-based workers. The threats that arise in the context of works councils – for example, sourcing labour from less organized regions – also exist when workers engage in collective bargaining. This could propel unions to develop agreements suited to cross-border contexts, such as international framework agreements, which are negotiated between global union federations and global brands, or to engage in bipartite or tripartite industry-level bargaining to regulate these emergent types of work. If these strategies were to be adopted, however, their success would be enhanced by a better understanding of the business practices and supply chains used by digital labour platforms.

⁶ California's Assembly Bill 5 (known as the AB5 Bill) is the most recent example of this and one of the most extensive pieces of legislation of this kind.

2.3. Multi-enterprise agreements

The search for solutions to improve employment and working conditions has led unions, worker centres and companies in a variety of industries to experiment with multi-enterprise regulatory models. Multi-enterprise agreements have successfully improved occupational health and safety standards, wages and benefits for workers in a myriad of industries (most notably agriculture in the form of “fair labour” certifications) and are now being adapted by workers in the platform economy. Many certification programmes and private compliance initiatives have been criticized for their lack of effective enforcement and oversight, or because participation is voluntary.⁷ However, efficacy can be enhanced when participation in these agreements is incentivized through expanded market opportunities that can be leveraged for compliance purposes or when they include other enforcement mechanisms. Their bespoke nature can also better accommodate geographically dispersed work.

A multi-enterprise agreement was brokered between the German metalworkers’ union IG Metall and eight crowdsourcing German platforms, seeking to create a new regulatory framework capable of enforcing co-determined terms and conditions. IG Metall, which boasts high rates of membership in the auto industry, was interested in addressing working conditions in the platform economy given the frequency with which crowdworking platforms are used to train algorithms for self-driving vehicles. It approached prominent German platform companies with the goal of establishing the German “Ombuds Office”, an independent arbitration mechanism for signatories of a negotiated “Crowdsourcing Code of Conduct”. Worker and platform representatives negotiated and signed the code on a voluntary basis and created a third party Ombuds Office to oversee enforcement. The Ombuds Office is comprised of a five-member panel that includes two worker and two platform representatives, and a neutral chair, presently a labour court judge. Since its creation, the Office has heard about 30 cases. Cases have either been resolved by consensual solutions or by decisions issued by the office and many have concerned non-payment of wages (Fair Crowd Work, 2019). While the rights afforded by the Code of Conduct are limited (they pertain to non-monetary conditions only), creation of the Ombuds Office has reified the importance of a neutral regulatory body to process grievances and has identified possible topics that could be targeted for future regulation.

Regarding the geographical scope and scale of this regulatory effort, the initiative has branded itself as the “Ombuds Office for German crowdsourcing platforms” (Fair Crowd Work, 2017). However, a close review of the terms and conditions of the office reveals no geographic limitations to participation. Unlike earlier ombudsperson functions, which had a strong local geographical focus and were created to “respond to complaints [of] administrative unfairness across an entire jurisdiction, whether a country or a sub-jurisdiction such as a state or province” (Dolan and Bennett, 2018, p. 374), the mandate for the

⁷ The ILO report to the 105th Session of the International Labour Conference, “Decent work in global supply chains” (ILO, 2016) notes that private compliance initiatives face a number of limitations to their effectiveness, and that research has shown them to be “weak in ensuring enabling rights, such as freedom of association and collective bargaining and non-discrimination” (p. 48).

Ombuds Office for German Crowdsourcing Platforms is dictated by the work relationship instead of the location. Rather than being situated within a material landscape, the area of application for the crowdwork initiative is bound by the company and its collaborating parties; it is “voluntary and self-regulated, [and] cannot claim validity outside its circle of supporters” (Ombuds Office, 2018). Early protocols suggested that the Office could mediate disputes between German platform signatories and workers located elsewhere, and this has recently been confirmed. Indeed, the Office has recently outlined new processes wherein complainant workers living in a country other than Germany may request a representative from a trade union based in that country to join the Ombuds Office in an advisory capacity.

Though the spatial limitations of the Office have yet to be tested, this framework may hold promise for a centrally coordinated transnational regulation of digital labour platforms. In this new regulatory space, decisions issued by the panel about worker grievances create precedent that can be referenced in future cases. Thus, while workers’ grievances are predominantly brought individually, this framework makes it easier for the Office to identify problematic patterns and trends in the structure, advertising or evaluation of crowdwork and, perhaps most importantly, to issue decisions and recommendations on how these practices can be reformed for the future benefit of all workers.

Additionally, rather than situating itself within a particular and pre-existing geographic–institutional framework, in establishing the Ombuds Office workers and platforms have created a new regulatory space that is better suited to the disparate spatial organization of crowdwork. The recent provision extending access to the Ombuds Office to workers from other regions while affording them a trade union representative from their country of residence also demonstrates an attempt to make the initiative locally relevant. Including a local trade union representative serves two functions. On one hand, it may inform workers of additional rights and protections available to them based on where they live (as well as connections to a labour union that may be willing to assist them with pursuing their claim). On the other hand, global accessibility to the Office may stave off similar initiatives that could dilute the provisions outlined in the Crowdsourcing Code of Conduct or limit the global scale at which the Ombuds Office seeks to regulate crowdwork. This helps to keep the process centralized and promotes greater associational, structural and institutional power among workers.

The global purview of the Ombuds Office is undoubtedly facilitated by the terms of service of crowdworking platforms, which, unlike many place-based platforms, are globally uniform. Thus, for place-based workers wanting to develop an Ombuds Office, such an institution may need to attend to local variations in how work is structured, managed and evaluated, and could thus result in a more decentralized system that is geographically or industry specific. Nonetheless, similarly structured programmes in targeted industries, such as the Fair Food Program initiated by the Coalition of Immokalee Workers (Dias-Abey, 2018), demonstrate that multi-enterprise agreements are well suited to multi-employer arrangements, to complex and fragmented global supply chains, and to industries where fundamental rights at work have not been adequately addressed through legislation.

3. Conclusion

The proliferation of platform work is rivalled only by the growth of collective organizing by platform workers. A myriad of strategies and collective organizing initiatives have emerged; however, those that achieve the most substantial gains are inevitably accompanied by a regulatory framework that is able to offer a mechanism for enforceability. Joint determination of terms and conditions through collective bargaining is one mechanism that workers have used to achieve binding and enforceable gains at work. Works councils and multi-enterprise agreements have also proved fruitful avenues for workers to participate in the process of workplace regulation.

In evaluating the capacity of these strategies to achieve long-lasting and meaningful improvements in working conditions, and in the debate about effective regulation of the platform economy, geography must be a key consideration. The article reifies place-based work and crowdwork as an important axis for developing a spatial analysis of platform-mediated work. Interrogating these distinct spatial patterns frames the scale of the labour market and in turn informs how workers structure their collective organizing responses in their effort to improve wages and working conditions.

A spatial analysis also sheds light on the appropriate scale and scope of regulation to ensure the decency of platform-based work. In examining the spatial expressions of workers' collective organizing, it is evident that workers' efforts often mirror the geographical organization of the platform work they are engaged in. To date, place-based platform workers have adopted a greater variety of strategies to improve the terms and conditions of work when compared with crowdworkers. Such workers are well suited to pursue regulation by employing strategies grounded in the particular jurisdictions and industrial relations cultures where they labour. Earlier research has also shown that when their efforts to engage in social dialogue have not yielded significant improvements, place-based workers can also lobby for legislative interventions that support their individual statutory and collective rights (Johnston and Land-Kazlauskas, 2019; Johnston, 2018). Crowdworkers, meanwhile, find success when they are able to create new regulatory spaces of regulation, such as multi-enterprise agreements, or where regulatory efforts place greater emphasis on the work relationship than the workplace. This can be attributed to the inter-jurisdictional, dis-embedded nature of crowdwork, which creates unique regulatory challenges and presents a decidedly new dimension to transnational phenomena like outsourcing and global value chains. While each of these three strategies has unique strengths and challenges, they are ultimately part of an array of social dialogue tools that can be combined to achieve sustainable and long-lasting outcomes.

The peculiarities of places have created and will continue to give rise to unique, geographically specific industrial relations practices. Although regional nuances do not necessarily preclude the effective regulation of place-based work, the emergence of crowdwork – which throws individuals from vastly different places into the same global labour market and introduces a host of complicated transnational jurisdictional unknowns – seems to demand a regulatory response

that is unmatched in scale. This should begin with ensuring that all workers, regardless of employment status, are able to benefit from ILO Conventions Nos 87 and 98, which call for freedom of association and the effective recognition of the right to collective bargaining, respectively.

As we look ahead, the Global Commission on the Future of Work report, published in January 2019, identifies a promising way forward for regulation in the platform economy by reaffirming the universality of key ILO Conventions and recognizing the spatial challenges that platform workers face. The Commission's report recognizes that digital labour platforms may represent new revenue streams for workers, but also notes that "the dispersed nature of the work across international jurisdictions makes it difficult to monitor compliance with applicable labour laws" (ILO, 2019, p. 44); it thus called for "the development of an international governance system for digital labour platforms that sets and requires platforms (and their clients) to respect certain minimum rights and protections" (ibid.). It is also conceivable that global framework agreements – outcomes of cross-border social dialogue between multinational enterprises and global union federations, aiming to establish and enforce minimum standards within global supply chains – could find their place among efforts to address some of these same challenges. In sum, promoting the full realization of workers' collective rights will support experimentation with the various strategies and processes presented here, and this will require the development of innovative and new solutions.

Workers will continue to exercise agency, develop collective voice, engage in collective action and explore strategies to improve their working conditions, despite legal and practical obstacles. Beyond the considerable transformations occurring in the world of work, understanding platform workers' collective organizing strategies helps to envisage effective means to contest workers' obfuscation behind algorithms, ensure platform worker agency and build a future that is inclusive and prosperous for all.

References

- Anderson, J. 2015. "Towards resonant places: Reflections on the organizing strategy of the International Transport Workers' Federation", in *Space and Polity*, Vol. 19, No. 1, pp. 47–61.
- Arrigo, G.; Casale, G. 2010. *A comparative overview of terms and notions on employee participation*. Working Document No. 8. Geneva, ILO.
- BBC. 2016. "Jakarta taxi drivers protest against Uber and Grab", in *BBC News*, 22 Mar. Available at: <http://www.bbc.com/news/world-asia-35868396> [accessed 4 Nov. 2019].
- BDA (Bundesvereinigung der Deutschen Arbeitgeberverbände). 2015. *Seize the opportunities of digitisation: BDA position on the digitization of business and the working world*. Available at: http://www.ioe-emp.org/fileadmin/ioe_documents/publications/Policy%20Areas/future_of_Work/EN/_2015-12-04_Digitisation_-_BDA.pdf [accessed 4 Nov. 2019].
- Berg, J.; Furrer, M.; Harmon, E.; Rani, U.; Silberman, M.S. 2018. *Digital labour platforms and the future of work: Towards decent work in the online world*. Geneva, ILO.
- Black, S.J. 2005. "Community unionism: A strategy for organizing in the new economy", in *New Labor Forum*, Vol. 14, No. 3, pp. 24–32.
- Blomley, N.; Pratt, G. 2001. "Canada and the political geographies of rights", in *Canadian Geographer/Le Géographe canadien*, Vol. 45, No. 1, pp. 151–166.

- Chen, J.Y. 2018. "Thrown under the bus and outrunning it! The logic of Didi and taxi drivers' labour and activism in the on-demand economy", in *New Media & Society*, Vol. 20, No. 8, pp. 2691–2711.
- Cherry, M.A. 2019. *Regulatory options for conflicts of law and jurisdictional issues in the on-demand economy*. Conditions of Work and Employment Series, No. 106. Geneva, ILO.
- Christian, W. 2018. "First ever collective agreement for the platform economy signed in Denmark", in *CPH Post Online*, 10 Apr. Available at: <http://cphpost.dk/news/first-ever-collective-agreement-for-the-platform-economy-signed-in-denmark.html> [accessed 4 Nov. 2019, currently inactive. See <https://blog.hilfr.dk/en/historic-agreement-first-ever-collective-agreement-platform-economy-signed-denmark/>].
- CNN Chile. 2019. "Conductores de Uber protestarán con 'apagón masivo' por precariedad laboral" [Uber drivers will protest against job insecurity with 'massive stoppage'], in *CNN Chile*, 6 May. Available at: https://www.cnnchile.com/economia/uber-apagon-masivo-protesta-precariedad-laboral_20190506/ [accessed 4 Nov. 2019].
- Coe, N.M.; Jordhus-Lier, D.C. 2016. "Re-embedding the agency of labour", in A.C. Bergene, S.B. Endresen and H.M. Knutsen (eds): *Missing links in labour geography*. London, Routledge, pp. 29–40.
- De Stefano, V. 2016. "The rise of the 'just-in-time workforce': On-demand work, crowd-work, and labor protection in the 'gig economy'", in *Comparative Labor Law & Policy Journal*, Vol. 37, No. 3, pp. 471–504.
- ; Aloisi, A. 2019. "Fundamental labour rights, platform work and human rights protection of non-standard workers", in J.R. Bellace and B. ter Haar (eds): *Research handbook on labour, business and human rights law*. Cheltenham, Edward Elgar, pp. 359–379.
- Dias-Abey, M. 2018. "Justice on our fields: Can 'alt-labor' organizations improve migrant farm workers' conditions?", in *Harvard Civil Rights–Civil Liberties Law Review*, Vol. 53, No. 1, pp. 167–212.
- Doellgast, V.; Benassi, C. 2014. "Collective bargaining", in A. Wilkinson et al. (eds): *Handbook of research on employee voice*. Cheltenham, Edward Elgar, pp. 227–246.
- Dolan, N.J.; Bennet, J.C. 2018. "What is an ombudsperson? Global diffusion, international standardization, and institutional diversification", in *Political Studies Review*, Vol. 17, No. 4, pp. 370–390.
- Dubal, V.B. 2017. "The drive to precarity: A political history of work, regulation & labor advocacy in San Francisco's taxi & Uber economies", in *Berkeley Journal of Employment and Labor Law*, Vol. 38, No. 1, pp. 73–136.
- Eaton, A.E.; Kriesky, J. 1998. "Decentralization of bargaining structure: Four cases from the U.S. paper industry", in *Relations industrielles/Industrial relations*, Vol. 53, No. 3, pp. 486–516.
- Eurofound. 2019. "Global Works Council", in *EurWORK: European Observatory of Working Life*. 21 Feb. Available at: <https://www.eurofound.europa.eu/observatories/eurwork/industrial-relations-dictionary/global-works-council> [accessed 4 Nov. 2019].
- . 2018. "Initiatives", in *Platform Economy Repository*, 6 Sep. Available at: <https://www.eurofound.europa.eu/data/platform-economy/initiatives> [accessed 4 Nov. 2019].
- Fair Crowd Work. 2019. *Report of the activities of the Ombuds Office of the Code of Conduct for Paid Crowdsourcing, 2017–2018*. Available at: https://ombudsstelle.crowdwork-igmetall.de/pdf/Ombuds_Office_for_paid_Crowdsourcing_Report_2017_2018_EN.pdf [accessed 5 Nov. 2019].
- . 2017. "Ombuds Office for German crowdsourcing platforms established", in *Fair Crowd Work*, 8 Nov. Available at: <http://faircrowd.work/2017/11/08/ombudsstelle-fuer-crowdworking-plattformen-vereinbart/> [accessed 5 Nov. 2019].
- Global Deal. Forthcoming. *Social dialogue and the future of work*. Thematic brief. Geneva.
- Graham, M. 2015. "Contradictory connectivity: Spatial imaginaries and technomediated positionalities in Kenya's outsourcing sector", in *Environment and Planning A: Economy and Space*, Vol. 47, No. 4, pp. 867–883.

- ; Anwar, M.A. 2019. “The global gig economy: Towards a planetary labour market?”, in *First Monday*, Vol. 24, No. 4. Available at: <https://firstmonday.org/ojs/index.php/fm/article/view/9913/7748> [accessed 1 Nov. 2019].
- Hendricks, W.E.; Kahn, L.M. 1982. “The determinants of bargaining structure in US manufacturing industries”, in *ILR Review*, Vol. 35, No. 2, pp. 181–195.
- Herod, A. 2002. “Towards a more productive engagement: Industrial relations and economic geography meet”, in *Labour and Industry*, Vol. 13, No. 2, pp. 5–17.
- ; Rainnie, A.; McGrath-Champ, S. 2007. “Working space: Why incorporating the geographical is central to theorizing work and employment practices”, in *Work, Employment and Society*, Vol. 21, No. 2, pp. 247–264.
- Hodges, G.R. 2007. *Taxi! A social history of the New York City cabdriver*. Baltimore, MD, The Johns Hopkins University Press.
- Holmes, J. 2004. “Re-scaling collective bargaining: Union responses to restructuring in the North American auto industry”, in *Geoforum*, Vol. 35, No. 1, pp. 9–21.
- Howcroft, D.; Bergvall-Kåreborn, B. 2019. “A typology of crowdwork platforms”, in *Work, Employment and Society*, Vol. 33, No. 1, pp. 21–38.
- Huws, U. 2014. *Labor in the global digital economy: The cybertariat comes of age*. New York, NY, Monthly Review Press.
- ILO. 2019. *Work for a brighter future: Global Commission on the Future of Work*. Geneva.
- . 2016. *Decent work in global supply chains*. Report IV, International Labour Conference, 105th Session, 2016. Geneva.
- ITF Global. 2016. “ITF backs Argentina’s taxi drivers over Uber”, in *News*, 4 Oct. Available at: <https://www.itfglobal.org/en/news/itf-backs-argentinax-taxi-drivers-over-uber> [accessed 4 Nov. 2019].
- Jaffe, S. 2019. “The labor movement comes to virtual reality: Unionizing digital media”, in *News and Analysis: Economy & Labor*, 16 June. Available at: <https://truthout.org/articles/the-labor-movement-comes-to-virtual-reality-unionizing-digital-media/> [accessed 4 Nov. 2019].
- Jesnes, K.; Ilsøe, A.; Hotvedt, M.J. 2019. *Collective agreements for platform workers? Examples from the Nordic countries*. Nordic Future of Work, Brief No. 3. Oslo, Fafo.
- Johnston, H. 2018. “Workplace gains beyond the Wagner Act: The New York Taxi Workers Alliance and participation in administrative rulemaking”, in *Labor Studies Journal*, Vol. 43, No. 2, pp. 141–165.
- ; 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.
- Jones, K.T.; Popke, J. 2010. “Re-envisioning the city: Lefebvre, Hope VI, and the neoliberalization of urban space”, in *Urban Geography*, Vol. 31, No. 1, pp. 114–133.
- Katz, H.C. 1993. “The decentralization of collective bargaining: A literature review and comparative analysis”, in *ILR Review*, Vol. 47, No. 1, pp. 3–22.
- Lefebvre, H. 1991. *The production of space*. Oxford, Blackwell.
- Lehdonvirta, V. 2016. “Algorithms that divide and unite: Delocalisation, identity and collective action in ‘Microwork’”, in J. Flecker (ed.): *Space, place and global digital work*. London, Palgrave Macmillan, pp. 53–80.
- Lenaerts, K.; Kilhoffer, K.; Akgüç, M. 2018. “Traditional and new forms of organisation and representation in the platform economy”, in *Work Organisation, Labour & Globalisation*, Vol. 12, No. 2, pp. 60–78.
- Lévesque, C.; Hennebert, M.-A.; Murray, G.; Bourque, R. 2018. “Corporate social responsibility and worker rights: Institutionalizing social dialogue through international framework agreements”, in *Journal of Business Ethics*, Vol. 153, No. 1, pp. 215–230.
- Mathew, B. 2008. *Taxi! Cabs and capitalism in New York City*. Updated edition. Ithaca, NY, ILR Press.

- Menegus, B. 2019. "New York's rideshare organizers clash amid unprecedented Uber strike", in *Gizmodo*, 8 May. Available at: <https://gizmodo.com/new-yorks-rideshare-organizers-clash-amid-unprecedented-1834623838> [accessed 4 Nov. 2019].
- Öberg, A.D. 2019. "Unionen har tre avtal på plats med plattformsföretag" [Unionen has signed three agreements with platform companies], in *Arbets Världen*, 21 Mar. Available at: <https://www.arbetsvarlden.se/unionen-har-tre-avtal-pa-plats-med-plattformsforetag/> [accessed 4 Nov. 2019].
- Ombuds Office. 2018. *Crowdsourcing Code of Conduct: Ombuds Office – Rules*. Frankfurt-am-Main. Available at: <https://ombudsstelle.crowdwork-igmetall.de/rules.html> [accessed 5 Nov. 2019].
- Ravenelle, A.J. 2017. "Sharing economy workers: Selling, not sharing", in *Cambridge Journal of Regions, Economy, and Society*, Vol. 10, No. 2, pp. 281–295.
- Rayle, L.; Dai, D.; Chan, N.; Cervero, R.; Shaheen, S. 2016. "Just a better taxi? A survey-based comparison of taxis, transit, and ridesourcing services in San Francisco", in *Transport Policy*, Vol. 45 (Jan.), pp. 168–178.
- Renner, M.; Schenwar, M. 2009. "Truthout becomes first online-only news site to unionize", in *News: Economy and Labour*, 8 Sep. Available at: <https://truthout.org/articles/truthout-has-unionized/> [accessed 4 Nov. 2019].
- Richardson, L. 2015. "Performing the sharing economy", in *Geoforum*, Vol. 67 (Dec.), pp. 121–129.
- Rosenblat, A. 2018. *Uberland: How algorithms are rewriting the rules of work*. Oakland, CA, University of California Press.
- Sainato, M.; Paul, K. 2019. "Uber and Lyft strikes: US drivers stop taking rides in protest over pay", in *The Guardian*, 8 May. Available at: <https://www.theguardian.com/technology/2019/may/08/uber-lyft-strikes-us-new-york-la-latest-news-updates> [accessed 4 Nov. 2019].
- Sen, S. 2019. "Ola, Uber drivers threaten fresh strike for better earnings", in *Times of India*, 12 Jan. Available at: <https://timesofindia.indiatimes.com/city/mumbai/ola-uber-drivers-threaten-fresh-strike-for-better-earnings/articleshow/67506814.cms> [accessed 4 Nov. 2019].
- Silver, B. 2014. "Theorising the working class in twenty-first-century global capitalism", in M. Atzeni (ed.): *Workers and labour in a globalised capitalism: Contemporary themes and theoretical issues*. London, Palgrave Macmillan, pp. 46–69.
- Söderqvist, F. 2017. "A Nordic approach to self-regulating platform based labour markets", in *Transfer: European Review of Labour and Research*, Vol. 23, No. 3, pp. 349–352.
- Swyngedouw, E. 2004. "Scaled geographies: Nature, place, and the politics of scale", in E. Sheppard and R.B. McMaster (eds): *Scale and geographic inquiry: Nature, society, and method*. Malden, MA, Blackwell, pp. 129–153.
- Tufts, S. 2016. "Schumpeterian unionism and 'high-road' dreams in Toronto's hospitality sector", in A.C. Bergene, S.B. Endresen and H.M. Knutsen (eds): *Missing links in labour geography: The dynamics of economic space*. Abingdon, Routledge, pp. 93–108.
- Turula, T. 2017. "These tiny electric tuk-tuks are taking on Uber in Stockholm", in *World Economic Forum*, 9 June. Available at: <https://www.weforum.org/agenda/2017/06/these-tiny-electric-tuk-tuks-are-taking-on-uber-in-stockholm> [accessed 4 Nov. 2019].
- Vida. 2017. "Betriebsrat für Fahrradzustelldienst foodora" [Works council for bicycle delivery service Foodora], in *Vida: Wir Leben Gewerkschaft*, 12 Apr. Available at: http://www.vida.at/cms/S03/S03_0.a/1342577497037/home/artikel/betriebsrat-fuer-fahradzustelldienst-foodora [accessed 4 Nov. 2019].
- Visser, J. 2016. "What happened to collective bargaining during the Great Recession?", in *IZA Journal of Labor Policy*, Vol. 5, No. 9. Available at: <https://izajolp.springeropen.com/articles/10.1186/s40173-016-0061-1> [accessed 1 Nov. 2019].
- . 2012. "The rise and fall of industrial unionism", in *Transfer: European Review of Labour and Research*, Vol. 18, No. 2, pp. 129–141.

- . 2002. “Why fewer workers join unions in Europe: A social custom explanation of membership trends”, in *British Journal of Industrial Relations*, Vol. 40, No. 3, pp. 403–430.
- Whittall, M.; Lucio, M.M.; Mustchin, S.; Telljohann, V.; Sánchez, F.R. 2017. “Workplace trade union engagement with European works councils and transnational agreements: The case of Volkswagen Europe”, in *European Journal of Industrial Relations*, Vol. 23, No. 4, pp. 397–414.
- Wial, H. 1993. “Emerging organizational structure of unionism in low-wage services”, in *Rutgers Law Review*, Vol. 45, pp. 671–739.
- Wills, J. 2002. “Bargaining for the space to organize in the global economy: A review of the Accor-IUF trade union rights agreement”, in *Review of International Political Economy*, Vol. 9, No. 4, pp. 675–700.
- Wilson, J. 2011. “Colonising space: The new economic geography in theory and practice”, in *New Political Economy*, Vol. 16, No. 3, pp. 373–397.
- Wood, A.J.; Lehdonvirta, V.; Graham, M. 2018. “Workers of the Internet unite? Online freelancer organisation among remote gig economy workers in six Asian and African countries”, in *New Technology, Work and Employment*, Vol. 33, No. 2, pp. 95–112.
- Zuckerman, M.; Kahlenberg, R.D.; Marvit, M. 2015. “Virtual labour organizing: Could technology help reduce income inequality?”, in *The Century Foundation*, 9 June. Available at: <https://tcf.org/content/report/virtual-labor-organizing/?agreed=1> [accessed 4 Nov. 2019].