



Kent Academic Repository

Devellennes, Charles and He, Huang (2026) *The limits of the digital gig economy: a Marxist critique*. *Critique Journal of Socialist Theory*, 54 (1). pp. 1-20. ISSN 1748-8605.

Downloaded from

<https://kar.kent.ac.uk/114160/> The University of Kent's Academic Repository KAR

The version of record is available from

<https://doi.org/10.1080/03017605.2026.2627035>

This document version

Publisher pdf

DOI for this version

Licence for this version

CC BY (Attribution)

Additional information

Versions of research works

Versions of Record

If this version is the version of record, it is the same as the published version available on the publisher's web site. Cite as the published version.

Author Accepted Manuscripts

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding. Cite as Surname, Initial. (Year) 'Title of article'. To be published in **Title of Journal**, Volume and issue numbers [peer-reviewed accepted version]. Available at: DOI or URL (Accessed: date).

Enquiries

If you have questions about this document contact ResearchSupport@kent.ac.uk. Please include the URL of the record in KAR. If you believe that your, or a third party's rights have been compromised through this document please see our [Take Down policy](https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies) (available from <https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies>).



Critique

Journal of Socialist Theory

ISSN: 0301-7605 (Print) 1748-8605 (Online) Journal homepage: www.tandfonline.com/journals/rcso20

The limits of the digital gig economy: a Marxist critique

Charles Devellennes & Huang He

To cite this article: Charles Devellennes & Huang He (2026) The limits of the digital gig economy: a Marxist critique, Critique, 54:1, 1-20, DOI: [10.1080/03017605.2026.2627035](https://doi.org/10.1080/03017605.2026.2627035)

To link to this article: <https://doi.org/10.1080/03017605.2026.2627035>



© 2026 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 26 Apr 2026.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

The limits of the digital gig economy: a Marxist critique

Charles Devellennes & Huang He

This paper explores the digital gig economy, focusing on Meituan delivery riders in China during the digital age. Using Marxist theories of labour alienation, it investigates how delivery riders experience a loss of control over the means of production, their labour products, autonomy, and subjectivity under algorithmic governance. By examining the worker's autonomy, democratic decision-making, and profit-sharing models employed by the Independent Workers' Union of Great Britain (IWGB) cooperative platform in London, this study highlights the potential of digital cooperative platforms for future worker emancipation. It suggests that digital cooperatives offer vital practical approaches to addressing contemporary digital labour alienation and represent a creative extension of Marxist human emancipation theory within the framework of escaping algorithmic dominance. These insights provide both critical and practical guidance for shaping a global digital labour system rooted in digital labour.

Keywords: Digital gig labour; alienation of labour; Marxist historical materialism; Chinese food delivery riders; cooperatives

1. Introduction

With the rapid development of digital technology and the platform economy, digital gig work has become an indispensable part of the contemporary labour market. With the boost of Internet technology, intelligent AI and super algorithms, labour has broken through the limitations of time and space and achieved both horizontal and vertical development. Ride-hailing drivers can freely choose their working hours and service areas, food delivery riders can independently plan their delivery routes and rest times, and online content moderators or crowdsourced task workers can complete their work from any place with an Internet connection. On the surface, gig labour has achieved 'liberation of time and space'. The soaring

number of gig workers in recent years and the positive publicity from many media outlets seem to highlight the attractive blueprint of this labour liberation trend. The ‘comprehensive liberation of human beings’¹ predicted by Marx has arrived, along with artificial intelligence.

However, was this carnival of labour liberation real or merely an illusion? If we carefully observe the digital gig workers around us, we can see that, under the guise of so-called freedom and autonomy, workers’ living conditions, working hours, wages, and benefits have not improved. Short-video live-streamers and product promotion influencers on cross-border e-commerce platforms must remain online all day and update their content frequently to maintain fan engagement and platform rankings. Freelance translators and online education counsellors who charge by the task must respond to orders or student requests at any time. Unmanned delivery vehicles or shared-robot maintenance personnel must closely adhere to the platform’s algorithmic scheduling to ensure service continuity. These emerging positions reveal that, despite the renewal of labour forms and technological tools, beneath the surface of flexibility and autonomy in gig labour, workers still face problems such as extended working hours, unstable income, and increased pressure. Contrary to media claims that smart technologies have created many jobs, the global surge in gig workers has led to a labour surplus, forcing workers to compete for lower wages and thereby reducing the overall income and welfare of the working class. Meanwhile, problems such as algorithmic bias, intense job competition, indifferent social relations, and restricted career development prospects have been accumulating, giving rise to more concealed contradictions of digital capitalism that intensify capital exploitation. All these questions point to an urgent one: Why does the seemingly flexible and autonomous form of digital labour imply hidden problems that harm the development of the entire workforce?

Although existing academic research has explored this issue from multiple perspectives - labour economics starts with income volatility, management studies by analysing platform incentive mechanisms, and sociology investigates workers’ network relationships - no clear solutions have been proposed. From this, it follows that research attempts to find the key to solving problems by analysing only one dimension of society are not feasible. It is precisely for these reasons that returning to the Marxist perspective is vital. Marx’s theories on capital logic, surplus value, labour process control, and labour alienation provide a multidimensional critical framework for understanding how digital platforms restructure labour relations through algorithms, data, and digital capital. On the surface, the form of digital labour has undergone new changes. However, in essence, digital platforms fragment labour and, through algorithmic scheduling, conduct rigorous monitoring and management of workers. Under the guise of flexibility, they secretly extract the residual value of digital gig work, continually compressing workers’

¹ Karl Marx, *Economic and Philosophic Manuscripts of 1844*, in Marx-Engels Collected Works, vol. 3 (London: Lawrence & Wishart, 1975), p. 274.

living space and forcing them to share the burden of capital reproduction. Workers are embedded in the rhythm dominated by capital. In this process, workers are drawn into the production and consumption of data, making alienation harder to detect and further eroding their personality and subjectivity. Therefore, the Marxist materialist conception of history is indispensable for revealing the logic of digital capital accumulation and clarifying structural contradictions, such as the continually increasing labour risks and uneven labour-capital relations in the gig economy.

The structure of this article aims to present, progressively, the generational logic, practical contradictions, and potential solutions of digital gig labour. Part one clarifies the concept of digital gig work and its labour characteristics. Drawing on a review of multiple studies, this study examines the formation mechanisms and characteristics of digital gig work from a Marxist perspective. Part two focuses on Meituan's food delivery riders in China, elaborating from a micro perspective on how algorithmic scoring, piece-rate systems, and platform rewards further catalyse the labour alienation of food delivery riders. Part three explores the theoretical premises and practical potential of the Gig Platform Cooperative (IWGB) and, through a specific case analysis, proposes a path based on collective action and institutional innovation to address the predicament of digital gig workers and to rebuild their subjectivity. This article aims to provide a theoretical and practical analytical framework for understanding and addressing the alienation contradiction of digital gig labour through systematic mechanism analysis, empirical case studies and institutional exploration, by combining theoretical criticism with realistic observation.

2. Digital gig work and its labour characteristics

As artificial intelligence and digital technologies sweep across the globe, digital gig work is progressively becoming the dominant form within labour markets, undergoing significant transformations in its operational structure. From a patio-temporal perspective, the flexibility and autonomy of digital gig work are particularly pronounced. Workers can schedule tasks according to personal availability and preferences, selecting both the location and type of assignments, thereby achieving a better work-life balance. Regarding employment opportunities, platforms streamline onboarding through algorithmic matching, enabling workers to commence roles swiftly without elaborate CVs or interviews. This approach creates greater employment prospects for individuals with lower levels of education, disadvantaged groups, and workers in developing nations. In terms of income generation, digital labourers can access low-cost training to continuously enhance their skills and competitiveness, thereby gaining barrier-free access to multiple platforms for work opportunities in their early stages. Regarding the labour process, algorithms continuously optimise task allocation, mobile payments enable instant settlement, and data feedback supports strategic adjustments by workers, rendering the labour process more efficient and transparent.

Consequently, digital gig work has emerged as a pivotal development in the evolution of labour forms within the digital economy, becoming the most representative

practical case in research on digital labour theory. Scholars examine digital gig work from multiple perspectives: some emphasise the advantages of digitisation in flexible employment and technological empowerment; others focus on the labour characteristics of digital gig workers and related social model analyses; a significant number of scholars have also treated the digital gig worker cohort as a unified entity, deepening research into their labour traits, income and welfare, and developmental prospects. These studies provide a theoretical foundation for understanding the essence of digital gig work, labour relations, and social impacts. However, from an overall research perspective, studies employing Marxist theory for analysis and discussion remain conspicuously absent. Digital gig work is highly digitised, with labour products immediately appropriated by platforms. The labour process becomes deeply intertwined with personal life, and individuals are progressively reduced to symbolic units, ultimately evolving into dispatchable data units. Within this process, only by employing Marxist historical materialism as an analytical tool can we uncover the future path to liberation for digital gig workers from this concealed and efficient form of exploitation.

2.1. *Digital gig work*

Existing research on the definition of the ‘gig economy’ largely centres on flexible employment, algorithmic management, and shifts in labour patterns. Friedman characterises the gig economy as a ‘labour market without employers’,² where workers are regarded as ‘employer-less labourers’. This definition emphasises the ‘freedom’ of gig work from traditional employment relationships, implying that gig workers can participate in market competition with greater autonomy. However, from the perspective of Marxist historical materialism, this ‘employerless’ narrative constitutes an ideological manifestation under capitalism. It disguises the subordinate relationship between capital and labour as an independent contractual arrangement, obscuring capital’s deep-seated control over the labour process through platforms and algorithms. As Marx observed: ‘Under the rule of capital, labour increasingly manifests as an activity governed by external forces.’³ The illusion of freedom often conceals the most profound subordination of labour.

Within the labour relations research framework, Cherry and Aloisi propose the category of ‘dependent contractors’⁴ to characterise gig workers as legally positioned between employees and self-employed workers. They argue that platforms create ‘incomplete labour relations’ by circumventing employer responsibilities, which need to be remedied by law to restore workers’ rights. While this view sensitively

² Gerald Friedman, ‘Workers without Employers: Shadow Corporations and the Rise of the Gig Economy’, *Review of Keynesian Economics*, 2:2 (2014), pp. 171–188.

³ Karl Marx, *Economic Manuscripts of 1861–1863*, in Marx-Engels Collected Works, vol. 34 (London: Lawrence and Wishart, 1994), p. 123.

⁴ Miriam A. Cherry and Antonio Aloisi, ‘Dependent Contractors’ in the Gig Economy: A Comparative Approach’, *American University Law Review*, 66:3 (2016), pp. 635–689.

captures the ambiguity of gig workers' status, it remains within the legal domain. It attributes the problem to institutional gaps, without addressing the deeper structural issues of platform capitalism. Marxism holds that the essence of labour relations is not determined by law but by production relations; the exclusion of gig workers from employment law is not a legal oversight, but an active strategy by capital to evade responsibility and expand surplus value extraction, an intrinsic result of production relations.

In platform management research, Rosenblat and Stark, through a study of Uber, pointed out that platforms use algorithmic management to create information asymmetry and control workers through pricing mechanisms, dispatch systems, and evaluation systems.⁵ Duggan further proposed that algorithmic management constitutes a new type of digital supervision system, placing gig workers in a fully quantifiable, traceable, and assessable labour environment.⁶ While these foreign scholars successfully reveal the regulatory effects of algorithms on labour behaviour, they mostly attribute these effects to technical rationality or managerial innovation, without recognising that capital uses algorithms to strengthen control as the fundamental driver. As Marx pointed out in *Capital*: 'Capital uses machines as a medium to dominate workers.'⁷ In the digital era, algorithms are a new 'machine system,' an essential tool for capital to reorganise labour processes, reinforce exploitation, and expand surplus value.

At the same time, scholars generally emphasise the flexibility that platforms provide to workers. Lehdonvirta argues that the core advantage of gig work lies in adjustable working hours and variable work locations.⁸ However, from the perspective of historical materialism, this flexibility is a mechanism by which capital fragments and appropriates labour time; it is a way for capital to draw workers into a state of constant readiness. Workers can choose orders freely, but must comply with platform-set incentive mechanisms, order priorities, and rating standards to maintain sufficient order volumes and income. Flexibility is thus capitalised into a 'disguised oppression,' and the boundaries between labour time and personal life are completely blurred, with workers' lives deeply appropriated by capital. Some scholars attempt to explain changes in gig labour through new labour identity classifications, such as 'platform workers,' 'micro-task workers,' or 'on-demand workers,'⁹ but these explanations mostly remain at the descriptive level of labour form

⁵ Alex Rosenblat and Luke Stark, 'Algorithmic Labour and Information Asymmetries: A Case Study of Uber's Drivers', *International Journal of Communication*, 10 (2016), pp. 3758–3784.

⁶ James Duggan, Aidan Sherman, Rónán Carbery and Thomas D. Fletcher, 'Algorithmic Management and App-Work in the Gig Economy: A Research Agenda for Employment Relations and HRM', *Human Resource Management Journal*, 30:1 (2020), pp. 114–132.

⁷ Karl Marx, *Capital: A Critique of Political Economy*, Vol. I, trans. Ben Fowkes (London: Penguin Books, 1990), p. 548.

⁸ Lehdonvirta, 'Vili. Flexibility in the Gig Economy: Managing Time on Three Online Piecework Platforms', *New Technology, Work and Employment* 33:1 (2018), pp. 51–67.

⁹ Miriam A. Cherry and Antonio Aloisi, 'Dependent Contractors' in the Gig Economy: A Comparative Approach', *American University Law Review* 66:3 (2016), pp. 635–689.

diversification, without recognising that the essence of labour remains unchanged. Marx stated: ‘No matter how labour changes in form, it is always the source of value.’¹⁰ Digital gig work has not escaped the wage-labour system, and platforms have not changed the capitalist mode of production; instead, they use digital technology to achieve more refined control over the labour process, transforming labour relations from legal employment subordination into algorithmic technical subordination.

Overall, while scholars’ interpretations of the concept of gig work hold significant theoretical importance, they exhibit limitations: an overemphasis on digital gig work and the digital economy being technology-driven, while overlooking capital’s dominance; attention to changes in labour forms yet downplaying the sustained production of digital surplus value; and a focus on digital workers themselves without delving into the root causes of labour alienation. From a materialist historical perspective, digital gig work is not a neutral labour innovation but rather the outcome of capital’s restructuring of labour through platforms and algorithms to deepen exploitation and strengthen control. Gig workers’ service activities, location trajectories, evaluation data, and order records are all instantly appropriated by platforms, forming new labour products that become core resources for capital accumulation—resources over which workers hold no ownership. This constitutes the contemporary manifestation of Marx’s observation that ‘the product of labour, as an alien force, dominates the labourer’.¹¹

Digital gig work is typically defined as a form of labour mediated by platforms and governed by algorithms. Compared to traditional employment, its defining characteristic lies in the technological intermediation of labour relations. However, from a Marxist perspective, the core structural shift in digital gig work lies not merely in “flexibility” and “de-employment”, but in how the labour process is restructured through platforms and algorithms without severing ties to capitalist relations of production. Platforms do not directly appropriate the entirety of workers’ labour time or output. Instead, through data collection, task allocation, and performance evaluation, they reintegrate fragmented labour activities into a computable, comparable, and optimisable production process. It is in this sense that the ‘gig nature’ of digital gig work does not diminish capital’s domination over labour; rather, it provides a more covert yet pervasive form of control.

2.2. *Labour characteristics of digital gig work*

Having clarified the exploitative nature of digital gig work, it is necessary to further analyse its labour characteristics. In the practice of digital gig work, whether digital

¹⁰ Karl Marx, *Capital: A Critique of Political Economy*, Vol. I, trans. Ben Fowkes (London: Penguin Books, 1990), p. 133.

¹¹ Karl Marx, *Economic and Philosophic Manuscripts of 1844*, in Marx/Engels Collected Works, vol. 3 (Moscow: Progress Publishers, 1975), p. 272.

labour constitutes “immaterial labour” has become a central issue. This concerns not only the scientific understanding of labour forms in the digital age, but also the analysis of the contradictions of capitalism in this era. This concept is particularly crucial because the work, labour products, and working conditions of digital labourers—such as ride-hailing drivers, food delivery riders, and remote designers—are deeply intertwined with digital platforms. Traditional theories centred on material products are insufficient to explain their characteristics and associated issues.

The concept of ‘immaterial labour’ was first proposed by Lazzarato, who argued that labour in the digital era mainly produces information, knowledge, and cultural content, and is therefore different from labour centred on material products, making it ‘immaterial labour.’¹² Terranova further pointed out that users generate data, information, and attention through browsing, uploading, and interacting online, which constitute the basic sources of value in digital capitalism and represent a form of ‘new unpaid labour.’¹³ These theories emphasise that digital labour is primarily engaged in symbolic production, knowledge creation, and data interaction, providing a theoretical framework for understanding the labour characteristics of digital gig work.

However, from the perspective of Marxist historical materialism, the ‘immaterial labour’ theory has significant deviations. As stated in *Capital*: ‘labour is first and foremost a process in which humans, through their activity, bring about changes in matter.’¹⁴ Labour must unify ‘purposeful activity, means of labour, and objects of labour,’ and is always a material metabolic process between humans and nature. Although digital gig work appears informational and symbolic, its operation and dissemination still depend on physical infrastructures such as network hardware, data centres, power systems, and smart devices. The content production, data generation, and platform operations performed by workers involve both mental and physical effort and thus constitute material labour in the Marxist sense.

The labour products of digital gig work are instantly appropriated by platforms, leaving workers without control. Platforms standardise the labour process through algorithmic scheduling, rating systems, and real-time monitoring, extending labour time and compressing worker subjectivity, making exploitation more hidden and efficient. From a Marxist perspective, the notion of ‘immaterial labour’ obscures the materialisation of labour: workers’ behaviours, trajectories, emotions, and attention are transformed into data objects by platforms and used for algorithm optimisation, precision marketing, and value accumulation, ultimately exercising reverse control over workers.¹⁵ Digital technologies have not altered the essence of capitalist exploitation but have made labour alienation more structured, even extending into

¹² Maurizio Lazzarato, ‘Immaterial Labour’ in P. Virno and M. Hardt (eds) *Radical Thought in Italy: A Potential Politics* (Minneapolis: University of Minnesota Press, 1996), pp. 133–147.

¹³ Tiziana Terranova, ‘Free labour: Producing Culture for the Digital Economy’, *Social Text*, 18:2 (2000), pp. 33–58.

¹⁴ Karl Marx, *Capital: A Critique of Political Economy*, Vol. I (London: Penguin Books, 1990), p. 283.

¹⁵ Christian Fuchs, *Digital labour and Karl Marx* (New York: Routledge, 2014), pp. 255–260.

workers' lives, emotions, and social activities. Platforms, which could enhance workers' agency, instead serve as tools to reinforce control, consuming labourers' initiative and creativity through algorithms.

It is precisely these four defining characteristics—algorithmic scheduling, product appropriation by platforms, temporal elasticity colonisation, and individualised risk transfer—that collectively constitute the distinct nature of digital gig work as a novel form of alienated labour. This is not a mere replacement for the alienation of industrial labour, but rather a shift towards a more intricate, comprehensive, and profoundly pervasive form of labour, orchestrated through digital technologies and permeating ever deeper spheres of life.

3. The phenomenon of alienation in digital labour: taking the food delivery personnel of Meituan in China as a case

The alienation inherent in digital gig work often remains imperceptible, as exploitation no longer manifests through traditional managerial oversight or fixed working hours, but is instead embedded within platform algorithms, rating systems, dynamic incentives, and task allocation. Workers appear to enjoy flexibility and autonomy, yet their time, tasks, and income are precisely controlled, with their actions and attention quantified as dispatchable data. This renders capital extraction even more difficult to detect, while workers struggle to recognise how they unknowingly aid digital capital in realising surplus value.

This paper employs delivery riders under China's Meituan platform as an entry point to reveal this novel form of capital exploitation. Meituan's delivery riders exhibit high representativeness at both individual and collective levels. From the individual rider's perspective, each constitutes a single work unit that independently completes the cycle of collection—delivery—feedback. Lacking fixed workplaces or regular partners, they struggle to establish stable social relationships. Collectively, the vast number of riders operate under a unified system of performance evaluation, incentive schemes, and platform regulations: their income primarily derives from delivery fees, social security provisions are minimal, and they bear personal responsibility for risks, including transportation, weather conditions, and delays. The platform controls and manages this rider cohort through mechanisms such as performance rankings, piecework bonuses, and dynamic incentives. In certain cities, riders have attempted to organise collectively through WeChat groups, mutual aid networks, or trade unions to safeguard their rights. China's Meituan delivery riders not only provide diverse case studies for examining the alienation of digital gig workers but also offer feasible methodological approaches for overcoming data manipulation.

In some cities, couriers have attempted to organise collectively via WeChat groups, mutual aid networks, or labour unions to protect their rights, reflecting the potential for coordination despite individual lack of control. As China's largest food delivery

platform, Meituan's large, widely distributed, and regulated workforce provides empirical evidence.

In this highly digitalised and platformised environment, the Marxist theory of alienation remains applicable because its essence persists: workers lose control over their labour products. They must convert their capacities into value objects. Although gig work is flexible and symbolic in form, outputs are appropriated by platforms, labour is algorithmically managed, and workers' subjectivity, creativity, and personal time are compressed and scheduled, demonstrating a modern manifestation of labour alienation.

3.1. Hidden exploitation: round-the-clock labour control behind the facade of freedom

Marx, in the *Economic and Philosophic Manuscripts of 1844*, argued that labour alienation is manifested not only in workers' loss of control over the products of their labour but also in their deprivation of control over their own time.¹⁶ Labour time is no longer freely controlled personal time, but is transformed into a tool for capital accumulation. Workers are compelled to invest their lifetime into the production process, with its rhythm, duration, and intensity determined by capital. Marx emphasised that this alienation exists not only in concrete production operations but also deeply permeates workers' lives, making time itself a resource subjected to control.

In the digital gig economy, this alienation of labour time takes on new forms. Taking food delivery couriers on Meituan in China as an example, riders appear to be able to choose orders and schedule their work time freely, but platform algorithms precisely regulate labour rhythm and time allocation through task assignment, route planning, delivery deadlines, and dynamic incentives. During the lunch peak, a rider may complete five deliveries within approximately one hour. To meet these requirements, the rider must deliver at high speed, often violating traffic rules such as running red lights or riding against traffic.¹⁷ After completing deliveries, the rider must remain on standby, refreshing the order page to capture the next batch of orders, or risk losing income. Nationwide surveys indicate that riders work an average of 6.4 days per week and 9.8 h per day, with approximately 36.7% working more than 10 h per day.¹⁸ Delivery riders are perpetually trapped in a cycle of 'delivery-on-call-order-hunting', with many completing their three daily meals while awaiting orders. Personal time is entirely subordinated to working hours.

¹⁶ Karl Marx, *Economic and Philosophic Manuscripts of 1844*, trans. Martin Milligan (New York: International Publishers, 1964), pp. 115–118.

¹⁷ Chinese Academy of Labour and Social Security, *National Occupational Survey Report of Food Delivery Riders* (Beijing: China Labour and Social Security Publishing House, 2021), p. 72–75.

¹⁸ Peking University Institute of Social Science Survey, *Survey Report on the Employment Status of Food Delivery Riders in the Context of the Digital Economy* (Beijing: Peking University Press, 2022), p. 45–48.

Under Meituan's algorithmic platform dispatch system, delivery riders exist in a state of perpetual standby. Order-grabbing countdowns, shrinking delivery windows, and incentive-penalty mechanisms like "On-Time Bonus" have fragmented riders' meals, rest periods, and personal affairs, forcing them to conform to the platform's dictated labour rhythm. Although riders seemingly enjoy the flexibility of 'freely choosing orders,'¹⁹ the platform precisely controls labour rhythm and scheduling through task assignment, route planning, delivery deadlines, and dynamic incentives, systematically extending, fragmenting, and quantifying labour time. Therefore, the practices of Meituan couriers clearly exemplify the logic of labour time alienation emphasised by Marx: even under highly digitalised and platformised conditions, workers' autonomy is concealed beneath the appearance of freedom, and their lives are deeply occupied and regulated. This not only highlights a new form of labour control under digital capitalism but also provides a theoretical basis for understanding gig workers' passivity and potential for collective action.

3.2. Multi-dimensional flexibility: the concealed capital exploitation and alienation of the Labour process

The alienation of digital labour manifests not only in its outcomes—the digital labour products—but also within the very process of their production. The alienated relationship between digital labour products and workers is merely one manifestation of the disparity between workers and digital labour production. However, its intrinsic nature is that workers, whilst engaged in digital labour, do not feel their physical and intellectual capacities are being fully utilised. Instead, they are subjected to multiple layers of exploitation and control by digital capital, causing their bodies to be tormented and their spirits to be crushed. In the daily work of Meituan delivery riders, the platform employs big data for task allocation and route planning. By continually tightening delivery time limits and leveraging a rating-based reward system for management, it achieves precise control over riders' labour choices, time allocation, and income tiers. Riders are categorised into different grades—from Bronze, Silver, and Gold to Diamond and Champion—based on metrics such as punctuality rates,²⁰ customer ratings, order volume, and service quality. Higher tiers grant riders priority access to delivery orders, yet greater rewards and premium orders entail increased labour demands. Lower-tier riders are confined to remote or low-value assignments. While this ranking system enhances platform efficiency, it fuels vicious competition among riders. Lower-tier workers are compelled to accept additional orders to survive, while higher-tier workers endure prolonged, high-intensity labour, significantly increasing physical and mental strain.²¹

¹⁹ Yujie Chen and Sun Ping, 'Time, Algorithms, and Power: How Food-Delivery Platforms Reshape Labour Control', *New Technology, Work and Employment*, 36:3 (2021), p. 211–228.

²⁰ Meituan Research Institute and Chinese Academy of Social Sciences, *2022 Report on Employment and Career Development of Food Delivery Riders in China* (Beijing: Meituan Press, 2022), p. 23–27.

²¹ Wu Qing and Li Xin, 'The Paradox of Flexibility: Rating Systems and Labour Discipline in Platform-Mediated Food Delivery', *Work, Employment and Society*, 36:5 (2022), pp. 812–830.

Moreover, digital platforms deliberately obscure their employment relationship with workers, misleading them into believing they are independent contractors. Delivery riders lack social insurance, paid leave, or vocational training benefits. This leaves them inadequately protected against accidents or health risks. One Meituan rider died of a sudden heart attack during a delivery, yet both the insurance company and the delivery platform refused compensation, claiming his death did not meet the definition of an ‘accident’.²² Formally working for themselves, riders are in reality entirely dependent on the platform, forced to bear labour risks, time costs, and income uncertainty. Concurrently, the de-skilling of delivery labour diminishes riders’ motivation for self-improvement while compelling them to continually adjust their schedules. This forces them to devote more time to work and less to leisure or skill development, irreversibly deepening the career risks and undermining the sustainable professional development of on-demand delivery workers.

It can be argued that the dynamic between delivery riders and platforms embodies the Marxist concept of labour-capital relations. When digital capital controls and dominates digital labour, it does not content itself with simple equivalent exchange of value. Marx posited that capital is value capable of generating surplus value, with the pursuit of maximum profit being its inherent nature. Thus, after appropriating workers’ digital labour products without compensation, platform owners reprocess and integrate these products into the capital production system to facilitate capital reproduction and achieve capital accumulation. In the era of digital capital, the larger the workforce engaged in digital labour becomes, the more it propels the expansion of digital capital. This expansion, in turn, further fuels the growth of the labour force. Within this perpetual cycle of development, workers grow increasingly reliant on digital platforms for their digital labour. Even as platform owners perpetually exert pressure upon them through these platforms, workers find themselves increasingly unable to function effectively in their daily productive lives and personal existence without such digital platforms.

3.3. Emotional exploitation: the full-scale deepening of physical-psychological-emotional exploitation

Labour, as a conscious human activity, serves as the bridge connecting workers to their essential humanity. Labour should inherently be a free, autonomous, and self-directed endeavour. Yet within platform-based delivery work, individuals’ emotions become tools for controlling and enslaving workers. Platforms monetise delivery personnel’s emotional labour, transforming their emotional investment into economic value through rating systems, rankings, and feedback mechanisms. This process strips delivery workers of autonomy and creativity during labour, resulting in emotional alienation. In 2021, Guangzhou delivery rider Xiao Li endured

²² Cai Jing Magazine, ‘Food Delivery Rider Dies Suddenly, Insurance Claim Denied: Who Should Bear the ‘Gig Risk’?’, 15 March 2021, pp. 34–36.

unprovoked verbal abuse and a slap from a customer during a delivery. Yet to avoid negative reviews, complaints, and account suspension, Xiao Li consciously suppressed his anger, removed his helmet, and bowed in apology to the customer.²³ The platform commodified Xiao Li's politeness, endurance, and self-restraint, transforming them into goods that sustain customer satisfaction, enhance the platform's reputation, and ensure delivery efficiency. The platform ranks delivery personnel based on order volume and positive reviews through algorithms, implicitly linking emotional labour to economic rewards.²⁴ This appropriates the emotions of gig workers without compensation, thereby converting them into capital. This labour value cannot be directly quantified by workers nor protected by traditional labour safeguards. As Byung-Chul Han observes: 'Under neoliberalism, exploitation no longer operates through alienation or reification, but manifests as freedom and self-realisation ... the willing self-exploitation.'²⁵

Concurrently, digital platforms have transferred supervisory authority over workers through rating systems. This delegation not only reduces operational costs but also shifts conflicts between platforms and gig workers onto the workers' relationships with customers. Within this delivery labour process, work serves to sustain the worker's personal survival. Under such conditions, human labour ceases to be free and autonomous, instead becoming constrained and alienated. Connections to their own labour, to others, and to nature are severed, rendering them estranged and alienated. The conscious activity of the worker is utterly reduced to a survival mechanism, with digital labour intensifying the alienation of the worker's human essence.

3.4. Interpersonal relations: the erosion of individuality in digital labour

Within the digital gig economy, platform algorithms and data management mechanisms profoundly shape relationships among workers. Digital labourers not only lose ownership of their labour products and face platform oppression but also experience alienation in their interactions with others in society. The widespread application of digital technology quantifies individuals into specific numerical values. This quantification and ranking system places workers in a perpetual competitive environment, in which cooperation, mutual aid, and social interaction become functionalised—each interaction potentially affecting income and performance—gradually rendering interpersonal relationships instrumental. Consequently, interpersonal bonds are supplanted by purely monetary interests. Workers endure prolonged anxiety, isolation, and dependence on platform

²³ The Paper, 'Why Did a Food Delivery Worker Bow After Being Slapped? The Emotional Dilemma Behind Platform Ratings', 21 October 2021, sec. Society.

²⁴ Xia, Yikun and Wang Lei, 'When Algorithms Demand Apologies: Emotional labour and Institutionalized Humiliation in China's Gig Economy', *Work, Employment and Society*, 37:4, pp. 1023–1041.

²⁵ Byung-Chul Han, *The Burnout Society* (Stanford: Stanford University Press, 2019), p. 57.

rules, while genuine social connections between individuals are compressed and marginalised.

In social life, delivery work consumes a significant portion of couriers' time. Yet even after logging out of crowdsourced apps after arduous delivery duties, couriers continue to use their smartphones. Instead, they employ these devices to facilitate interpersonal communication, confining such exchanges to a closed virtual space.²⁶ This technological advancement paradoxically fosters greater alienation among individuals. Meanwhile, platform applications constantly infiltrate this virtual space, harvesting users' interaction data and leveraging it for personalised recommendations. This process subtly accelerates the dilution and isolation of social relationships.

Under digital capitalism, interpersonal alienation manifests in new forms: workers are not only alienated from their labour process and outputs but also have their social relationships reconstructed and commodified according to the logic of platform capital.²⁷ Algorithms, performance systems, and ranking mechanisms integrate workers' behaviours, time, and social interactions into capital accumulation, intensifying competition, marginalising collaboration, and weakening social support networks. For capital, this alienation increases efficiency and productivity while reducing the possibility of collective resistance, making workers more compliant with platform rules. For workers, it imposes psychological pressure, increases isolation, compresses family and real-life social relations, and limits their capacity to claim rights.²⁸ Although digital platforms differ in form from traditional factory labour, the core logic of exploitation remains unchanged: capital integrates workers and their social relations into the surplus value production system through institutionalised and algorithmic means. Therefore, the Marxist theory of alienation can effectively explain the mechanisms and social consequences of interpersonal alienation in the digital gig economy, revealing the hidden exploitative logic behind the surface-level 'freedom and flexibility' and helping to understand internal worker competition, isolation, and weakened social connections, thus fully capturing the essence of social relationship alienation under digital capitalism.

4. The vision of emancipation through gig platform cooperatives

Digital gig workers have long operated within an alienating environment without realising it, which has led to numerous challenges in reorganising the gig workforce. Firstly, because most gig workers operate in an atomised labour market, the individualised and fragmented nature of their work results in limited collaboration among colleagues and weak connections among workers. This makes it difficult for workers

²⁶ Michael W. Dawson and John Bellamy Foster, 'The Exploitation of the Digital Self', *Monthly Review*, 68:8 (2017): pp. 1–17.

²⁷ Ursula Huws, *Labour in the Global Digital Economy: The Cybertariat Comes of Age* (New York: Monthly Review Press, 2014), pp. 176–187.

²⁸ Nick Srnicek, *Platform Capitalism* (Cambridge: Polity Press, 2017), pp. 47–65.

to form collective organisations, such as trade associations or unions. Secondly, the composition of gig workers is complex, with high substitutability among them. Digital platforms employ incentive mechanisms, such as rating systems, to internally segment gig workers, creating a ‘top-tier effect’ within the gig workforce that fuels vertical competition among workers. This competitive dynamic hinders the formation of adequate collective strength among gig workers. Thirdly, digital platforms have differentiated workers through piece-rate remuneration systems. Gig workers’ acceptance of piece-rate pay has eroded the foundation for solidarity among them. Finally, gig workers lack both the conditions and inclination for collective resistance compared to traditional labour groups. Unlike the industrial era, the gig economy subjects labour processes to invisible surveillance. Production activities unfold under the direction of digital platforms, which, although they act as managers, remain intangible entities. Consequently, digital gig workers seldom engage in substantive resistance. The sheer scale of the gig workforce also fuels workers’ anxieties about unemployment and their eagerness for job opportunities. This leaves them with insufficient resolve to confront digital capital.

In the developmental trajectory of the labour movement, methods and approaches have progressively shifted from the violent destruction of machinery to negotiation and reconciliation. In the era of digital gig work, the non-privatisation of core means of production and the virtualisation of production processes enabled by big data networks render workers incapable of confrontation with capital. Within digitalised, platform-based labour systems, gig workers’ resistance strategies have evolved along two primary pathways: firstly, organising collective disengagement in virtual spaces or erasing their symbolic presence to counter platform algorithms; secondly, establishing trade unions or mutual aid organisations to reclaim bargaining power against digital capital. Under this framework, the 2016 London Deliveroo riders’ strike—which united with the Independent Workers’ Union of Great Britain (IWGB) to counter exploitation by UK food delivery platforms—emerged as a seminal case study. This breakthrough practice demonstrates how digital workers can reconstruct collective power within highly fragmented, algorithmically controlled labour structures, heralding new prospects for labour relations under platform capitalism.

In August 2016, a protest erupted among workers at the Deliveroo food delivery platform in London. The catalyst was the platform’s shift from its original pay structure of ‘£7 per hour plus £1 per order’ to a system paying £3.75 per order while eliminating the minimum income guarantee.²⁹ This change in remuneration immediately provoked discontent among riders. This income system, ostensibly designed to reward higher output, directly compelled riders to remain on standby for extended periods during peak hours to secure orders, lest their earnings plummet. One rider recalled: ‘Every day feels like running on a treadmill with no end in sight; you

²⁹ *Central Arbitration Committee, Decision on Whether to Accept the Application*, Case No. TUR1/985(2016) (Independent Workers’ Union of Great Britain v RooFoods Ltd. t/a Deliveroo), 14 Nov. 2017, pp. 148–151.

never know how much you'll earn today, or whether you'll secure enough peak-hour orders.³⁰ Delivery riders began realising that the platform was packaging them as 'self-employed contractors,' forcing them to bear the work pressure transferred by the digital platform as highly atomised production units. Simultaneously, Deliveroo employs a strategy of internal division among riders, offering subsidies to those with high order rates while threatening to reduce or cancel orders for riders who fail to comply with platform rules. This approach effectively undermines solidarity within the rider community, causing self-organised protests to disintegrate rapidly. However, prolonged high-intensity work pressures and steadily eroding employment benefits made riders realise that atomisation only accelerated the dissolution of collective consciousness. Only organised collective action could safeguard shared interests. Consequently, riders began establishing mutual-aid information networks via social media. This accumulation of knowledge laid the groundwork for subsequent collective action, revealing they were not isolated and helpless.

To resist Deliveroo's unfair treatment, hundreds of riders deactivated the app during peak delivery hours, causing widespread order backlogs and plunging the platform into algorithmic chaos. Riders shared real-life accounts of exploitation on Deliveroo's social media channels, sparking limited public attention and debate. Unfortunately, the protest faltered due to low participation and the return of most riders to work. The Independent Workers' Union of Great Britain (IWGB) took charge of the campaign, simultaneously calming delivery riders' emotions while swiftly compiling their demands through field investigations: reinstating the original hourly wage system, continuing basic insurance contributions for workers, and ceasing algorithmic forced dispatch. Simultaneously, the IWGB consulted legal experts to analyse and refute the platform's 'self-employment' framework, thereby substantiating the riders' legitimate claims.³¹ Leveraging big data platforms, the union mobilised all delivery personnel, establishing mutual-support networks via social media such as Facebook and WhatsApp under rider-led management. This ensured synchronised action across all operations to maximise impact.³² Through concerted efforts by the IWGB, delivery riders, and social advocates for gig workers, the dispute escalated into a public issue. Under mounting public pressure, Deliveroo was compelled to respond. The company agreed not to implement the new payment system unilaterally but instead to conduct a one-month selective trial of guaranteed wages.

From the outcome, Deliveroo's unequal employment practices remain fundamentally unchallenged, with delivery riders still subject to algorithmic control. Yet in the broader sense, this campaign vividly demonstrates the transformative power of

³⁰ Dan Woodcock and Christian Cant, 'Platform Worker Organising at Deliveroo in the UK', *Journal of Labour and Society*, 25 (2022): 220–236, p. 225.

³¹ IWGB Couriers and Logistics Branch, 'Written evidence to the House of Commons Select Committee — *The Future World of Work*' (WOW 99), February 2017, pp. 1–3.

³² UK Supreme Court, *Independent Workers' Union of Great Britain (Appellant) v Central Arbitration Committee and another* (judgment), UKSC (2021), pp. 28–29.

workers evolving from isolated atoms into a collective consciousness. As Marx observed in *The Civil War in France*: ‘Unorganised labour is merely a collection of disconnected atoms.’³³ The efforts of the IWGB have made digital-age workers realise that even within highly algorithmic, data-driven production environments, liberation is not beyond reach. On the contrary, digital workers’ capacity for creative use of technological tools and their ability to forge collective consciousness across regions and organisations provide potent weapons in their struggle against digital capital.

Trevor Scholz introduced the concept of ‘platform cooperativism’ in his book.³⁴ Platform cooperativism advocates for the establishment of platform cooperatives governed collectively by members rather than dictated by a minority, committed to enabling workers to become ‘owners of the platform’ through cooperative models rather than mere users. Cooperative platforms in the digital age emphasise transparency of data, algorithms, and operational rules for all members, pursuing long-term sustainability and positive social impact. Platform cooperatives exist across numerous sectors. Examples in the taxi industry include the US-based Green Taxi Cooperative, France’s Alpha Taxis, and Italy’s Cotabo. In the transport sector, France’s Applicolis and CoopCycle, alongside Canada’s Radish, operate in a cooperative arrangement. For professional services, Finland’s Lilith (creative work) and the UK’s Signalise (interpreting services) are notable. In the cleaning services sector, there is Up&Go in the United States; in healthcare, there are Equal Care Co-op in the United Kingdom and Savvy in the United States; and in the accommodation sector, there is Fairbnb.

The concept of platform cooperativism and the emergence of platform cooperatives did not arise from thin air. Trade unions served as the precursors to digital cooperative platforms. Examining the historical evolution of trade unions reveals that their transformations in each era were intrinsically linked to shifts in social structures and relations of production, further corroborating Marx’s arguments regarding socio-historical change. In *Capital*, Karl Marx noted that trade unions emerged among workers, who, as a ‘class compelled to sell their labour power,’³⁵ recognised that individual liberation was unattainable. Thus, they formed crucial organisational structures to counter the monopoly of the means of production and strengthen the concentration of labour. Marx contended that the labour-capital relations reflected at different stages of production relations determined the founding purpose and developmental goals of trade unions, serving as a direct manifestation of the working class’s ideology.³⁶ Engels further emphasised that trade union strength

³³ Karl Marx, *The Civil War in France*, in Marx and Engels Collected Works (MECW), Vol. 22 (New York: International Publishers, 1986), p. 335.

³⁴ Trevor Scholz, ‘Introduction: Why Platform Cooperativism?’, in Trebor Scholz and Nathan Schneider (eds) *Ours to Hack and to Own: The Rise of Platform Cooperativism, A New Vision for the Future of Work and a Fairer Internet* (New York: OR Books, 2016), pp. 1–20.

³⁵ Karl Marx, *Capital: A Critique of Political Economy*, vol. 1, trans. Ben Fowkes (London: Penguin Books, 1976), pp. 1029.

exhibits cyclical fluctuations in response to shifts in the intensity of capitalist surplus value extraction.³⁷ This rhythmic pattern reflects not inherent structural flaws within trade union organisations, but rather the historical manifestation of capitalist oppression.

Since the inception of organised trade union activity, these institutions have become integral components of the working class's 'organic intelligentsia'³⁸, serving as a vital force in the struggle for control over the means of production and ideological hegemony. When trade unions themselves transcend the prevailing stage of capitalism, their social influence significantly intensifies, thereby fostering the formation of mass subjectivity. This empowers workers not only with the confidence to resist capitalist exploitation within production relations but also establishes their ideological primacy and legitimacy in cultural, political, and other spheres. However, with the expansion of neoliberalism in the 20th century and the ongoing erosion of global temporal and spatial boundaries, the organisational foundations of trade unions have been substantially weakened. Scholars such as Zygmunt Bauman have observed that 'liquid modernity'³⁹ has rendered labourers increasingly atomised. The stable workplaces, employment relationships, and social networks characteristic of the traditional industrial era have been dismantled, progressively narrowing the reach of trade unions. Michel Foucault further introduced the concept of 'governmentality,'⁴⁰ wherein individuals are moulded into self-accountable, self-competing, and mutually exclusive labour units. This severely impedes the formation of collective consciousness among workers, factors which directly precipitated the widespread decline of traditional trade unions in the latter half of the twentieth century.

The global deployment of big data has revitalised trade union organisations. The digital economy compels workers to become virtual symbols, perpetually subjecting them to profoundly precarious labour relations. As Michael Hardt and Antonio Negri observe in *Empire*⁴¹ and *Multitude*⁴², digital capitalism has reconstituted the 'social factory,' expanding the workforce to unprecedented proportions and thereby establishing a new collective foundation for the emergence of digital unions. Louis Althusser contends that while big data renders oppression more invisible, it simultaneously furnishes workers with tools for reflection when confronting

³⁶ Karl Marx, *The Poverty of Philosophy* (New York: International Publishers, 1963), pp. 174.

³⁷ Frederick Engels, *The Condition of the Working Class in England*, in Marx & Engels Collected Works (MECW), vol. 4 (London: Lawrence & Wishart, 1975), pp. 507.

³⁸ Antonio Gramsci, *Selections from the Prison Notebooks*, ed. and trans. Quintin Hoare and Geoffrey Nowell Smith (New York: International Publishers, 1971), pp. 334.

³⁹ Zygmunt Bauman, *Liquid Modernity* (Cambridge: Polity Press, 2000), pp. 53–54.

⁴⁰ Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France, 1978–1979*, ed. Michel Senellart, trans. Graham Burchell (New York: Palgrave Macmillan, 2008), p. 192.

⁴¹ Michael Hardt and Antonio Negri, *Empire* (Cambridge, MA: Harvard University Press, 2000), pp. 294–303.

⁴² Michael Hardt and Antonio Negri, *Multitude: War and Democracy in the Age of Empire* (New York: The Penguin Press, 2004), pp. 103–111.

algorithmic discipline, performance pressures, and data-driven surveillance. Through technologies such as the internet, workers recognise that they are not isolated ‘individual entrepreneurs.’⁴³ This process of re-identification among workers sparks novel forms of worker solidarity, propelling trade unions towards digitally enabled, cross-regional development. Pierre Bourdieu’s concepts of ‘habitus’⁴⁴ and ‘symbolic violence’⁴⁵ elucidate how the working class, through digital labour, progressively dismantles algorithmic coercion and the illusion of virtual freedom, proactively seeking new avenues for collective resistance against the oppression of digital capital relations. Concurrently, data itself has become a crucial instrument for the resurgence of new-form unions. In contemporary society, where technology and daily life are inextricably intertwined, digital platform cooperatives—as novel forms of community—have transcended traditional, top-down models of generation to evolve through organic growth. Digitalisation has forged new ‘publicness’⁴⁶ among dispersed labourers while generating a novel solidarity structure that enables co-creation, shared ownership, and collective governance.

In his conception of the emancipation of the working class, Marx emphasised that workers’ liberation entails not merely the seizure of the means of production, but a comprehensive transcendence of the capitalist mode of production and the alienation of labour.⁴⁷ The emancipation of the working class entails the socialisation of the means of production, transparency in both the labour process and its outcomes, and the liberation of workers from the alienation of capital accumulation. This enables the full development of their subjectivity and self-worth. Realising this vision of labour liberation necessitates institutional, technological, and organisational innovation within the digital age, with digital platform cooperatives offering a practical and viable pathway.

Digital platform cooperatives dismantle the temporal and spatial constraints on digital gig work. Through information technology, they aggregate dispersed gig workers into decentralised collaborative networks, enabling labourers to freely mobilise information while enhancing their participation in platform operations and production processes. This facilitates democratic engagement. Secondly, digital platform cooperatives harness technology to subvert capitalist alienation and algorithmic control. The cooperative model establishes mechanisms centred on big data analysis and supplemented by collective decision-making, fundamentally transforming workers from passive tools of capital into subjects conscious of their own

⁴³ Louis Althusser, *Ideology and Ideological State Apparatuses (Notes towards an Investigation)*, in Lenin and Philosophy and Other Essays, trans. Ben Brewster (New York: Monthly Review Press, 1971), pp. 127–186.

⁴⁴ Pierre Bourdieu, *The Logic of Practice*, trans. Richard Nice (Stanford: Stanford University Press, 1990), pp. 52–65.

⁴⁵ Pierre Bourdieu and Jean-Claude Passeron, *Reproduction in Education, Society and Culture*, trans. Richard Nice (London: Sage Publications, 1977), pp. 4–15.

⁴⁶ Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life*, trans. Daniel Heller-Roazen (Stanford: Stanford University Press, 1998), pp. 1–12.

⁴⁷ Karl Marx, *Capital: A Critique of Political Economy*, vol. 1, trans. Ben Fowkes (London: Penguin Books, 1976), p. 173.

emancipation. Concurrently, digital platform cooperatives provide institutional safeguards for worker participation in social development through measures such as promoting digital labour rights and advancing digital ethics education, thereby achieving comprehensive democratisation across production, distribution, and social life.

5. Conclusion

The advancement of digital technology and the emergence of digital platforms have catalysed the gig economy. During the COVID-19 pandemic, this sector experienced explosive growth as vast numbers sought to escape unemployment by joining its ranks. Despite its reputation for freedom and flexibility, the gig economy has not improved workers' livelihoods but has instead subjected them to more severe forms of labour exploitation. Unlike traditional industrial labour, which confined workers to machinery and factories, digital capital—the latest form in capital's developmental trajectory—always extends digital labour throughout society via digital technology. The emergence of digital labour models such as the gig economy, live streaming, online video production, and ride-hailing services has vastly expanded the scope of past labour. While digital labour holds value and revolutionary significance across many facets of the social output compared to industrial labour, we must recognise that precisely because it reduces socially necessary labour time and boosts productivity, digital capital owners can more 'rationally' achieve deep exploitation and alienation of digital workers. Moreover, as digital labour diversifies labour models, digital technology acts as a 'searchlight', digital capital can uncover 'lands hidden in the fog', incorporating more domains into its alienating grasp. In other words, within the digital capital era, its owners utilise digital technology and intelligent algorithms to control our choices regarding clothing, food, housing, and transportation, as well as our demand for entertainment – all while we enjoy life's conveniences. This will only deepen the exploitation and alienation of the labour underpinning it.

From a macro perspective on global class struggle, digital platform cooperatives not only hold immense potential to address the survival crises of digital gig workers but may also become crucial battlegrounds for digital labourers seeking human emancipation within the digital capital network. By leveraging network technology to rebuild collaborative organisations for global workers, these cooperatives transcend regional and sectoral boundaries while dismantling prejudices rooted in ethnicity and wealth disparity. They continuously empower digital labourers to secure rights against capital accumulation, systemic flaws, and unfair decision-making, fundamentally challenging the logic of global capitalist accumulation. Concurrently, digital platform cooperatives offer advantages such as low costs, operational convenience, high participation rates, and extensive reach, making them well-suited to establishing novel class-based organisational forms that transcend national and corporate boundaries. It can be argued that digital cooperative platforms represent not merely an organisational form, but a forward-looking

experiment in the future possibilities of workers' liberation: they herald the potential for labourers to forge global alliances through their own strength, offering prospects for reclaiming control over the means of production in the digital age, reshaping the global labour order, and realising the free and comprehensive development of humanity in the Marxist sense.

Acknowledgements

For the purposes of open access, the authors have applied a Creative Commons Attribution (CC BY) licence to any Accepted Author Manuscript version arising from this submission.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Charles Devellennes is a Senior Lecturer in Political and Social Thought at University of Kent. Email: C.Devellennes@kent.ac.uk

Huang He is a PhD candidate at Wuhan University and visiting PhD student at the University of Kent. Email: hh11@kent.ac.uk