Humanizing the posthuman: Digital labour, food delivery, and openings for the new human during the pandemic

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Abstract
Posthuman is a social condition of humans losing control, especially to technological forces, and a cultural framing beyond Enlightenment modernity. Building on the posthuman critique, this article examines digital labour and food delivery platforms during Covid-19 in Asian contexts. The main argument is that, while reinforcing inequalities through algorithm-based discrimination and control, the pandemic also creates openings for progressive change towards the humanizing of the posthuman, through human–non-human assemblage as well as ‘sticky labour’. As such, Covid-19 is more than a crisis that signifies the end of the ‘old normal’. It is, more importantly, another moment when existential crisis triggers innovation in working-class network society, leading to novel discourses, practices, and networks. How and why did this happen? What are the implications for pandemic-era cultural shaping of the digital? These questions will be discussed.

Keywords
Asia, digital labour, food delivery, gig economy, posthumanism

Before Covid-19, the world during the 2010s was already facing multiple crises: social and environmental, cultural and economic. The pandemic brought enormous new challenges in public health and logistics, while boosting certain businesses, such as food delivery, due to lockdown restrictions, surging ‘surplus labour’ caused by rising...
unemployment, and the near ubiquity of the smartphone-app-based ‘platform economy’, aka ‘the gig economy’ (Kenney and Zysman, 2016; Woodcock and Graham, 2019).

This article draws from the posthuman critique – an umbrella term covering several strands of thought (Ferrando, 2013) – to examine food delivery labour across Asia, including the embodied experiences, associated cultural practices, and networks of solidarity. The goal is to develop a ‘southern theory’ (Connell, 2007) through the lens of inter-Asian referencing (Chua, 2015; Iwabuchi, 2014) in order to understand geo-tethered digital labour, the ways it operates on the ground as artificial intelligence (AI)–human assemblage, and the ways it is contested in the realms of representation, cultural construction, and social policy facing the working-class network society under conditions of Covid-19. To this end, the posthuman critique supplies key analytical concepts while serving as a heuristic device.

According to Connell (2007), a southern theory must stand two ‘tests of realism’: first, it conceptualizes dispossession, colonialism, and ‘the long-lasting pattern of inequality in power, wealth and cultural influence that grew historically out of European and North American imperialism’ (Connell, 2007: loc. 3707); second, it recognizes the ‘diversity and dynamism’ of southern populations in resisting domination by the metropole while attempting ‘to connect different formations of knowledge in the periphery with each other’ (Connell, 2007: loc. 3729, 3737). AI-powered food delivery platforms represent yet another mode of dispossession, while delivery labour and their allies develop ways of resistance – practically and intellectually – that are diverse and dynamic, as can be seen across Asia.

This article focuses on digital labour and food delivery platforms during Covid-19 in comparative Asian contexts, especially Singapore, Mainland China, and Hong Kong, where the author’s research team has carried out interviews and questionnaire surveys in 2020 and 2021. The analysis also benefits from regular exchange with Fairwork collaborators in Taiwan, Thailand, India, Indonesia, and the Philippines, with whom a monthly webinar series has been held from October 2020 to July 2021. Deploying methods developed in the Fairwork project,1 worker voices are captured through interviews and online discussions via social media, while multi-lingual media texts and policy documents are collected through desk research.

**AI takeover beyond the posthuman**

The posthuman is a broad, inconsistent, yet generative set of ideas that emerged from both the humanities and social sciences, including in media, communication, and cultural studies, as well as interdisciplinary fields such as science and technology studies (STS). Reflecting critically on the fundamentals of the human condition, posthumanism can be traced back to Donna Haraway’s (1985) cyborg feminist manifesto in the *Socialist Review* that rejects rigid boundaries between humans, animals and machines; and Katherine Hayles’s *How We Became Posthuman* (1999), which interpolates the decline of liberal, Enlightenment-style human ‘subjects’. Francesca Ferrando (2013) identifies seven definitions of posthumanism, while highlighting the urgency to move beyond the Anthropocene through ‘a “Humanities Plus”’ movement, whose aim is to ‘elevate the human condition’ (2013: 32), for instance, through ‘democratic
transhumanism’ (Hughes, 2004) or ‘posthuman democracy’ enabled by algorithms and cyborg citizenship (Hughes, 2017). In so doing, posthumanism responds to the existential crises – technological, social and cultural, conceptual and environmental, epistemological and ontological – facing not only humanity but also Planet Earth and beyond.

Contrary to variants of qualified optimism among philosophers, geographers, and early-generation STS scholars, there is a dystopian turn in media and cultural studies, as well as management research and recent STS scholarship. From Mark Andrejevic’s (2007) work on surveillance to studies on ‘wireless leash’ and iSlavery (Qiu, 2007, 2016), from Adam Greenfield’s (2017) ‘posthuman everyday’ to Ignas Kalpokas’s (2019) ‘algorithmic governance’, this strand of literature emphasizes social control and exploitation through technology, the loss of free will, and the subjugation of subjectivity through objectification, commodification, and disempowerment through AI. Instead of construing posthumanism through the prism of socialism broadly defined, this posthuman condition under the theme of AI takeover is seen unequivocally as an extension of capitalism, an elevated mode of accumulation through dispossession and manipulation in the so-called ‘behavioural futures markets’ à la Shoshana Zuboff (2019: 8), whose magnum opus The Age of Surveillance Capitalism carries the subtitle: The Fight for a Human Future at the New Frontier of Power.

How to make sense of this transition in posthuman critique from a socialist / feminist / postcapitalist imagination to an ultra-capitalist iron cage built from Big Data, AI, and algorithms? For one thing, the social conditions of the high-tech industries have changed. The early posthumanists experienced a more or less decentralized technoscape, populated by scientists and non-profits, besides corporations, as exemplified by the cyber-libertarian internet at the turn of the century. Two decades later, however, Big Tech has come to be dominated by monopoly capitalism, private interests, and populism. Although the internet has diffused into an essential infrastructure, especially under conditions of the pandemic, the power balance has shifted decisively towards corporate ‘platforms’, especially the handful of American or Chinese tech giants, which, for different reasons, have all faced a public opinion backlash in recent years, both at home and in overseas markets, including in Asia.

Whether backed by Silicon Valley, Beijing, or other capitalist blocs, the posthuman condition – as in the case of food delivery platforms – share much in common. They tend to result from intense financialization, building on the back of quantitative easing (QE) since the 2008 global financial crisis, now accelerating during the pandemic. They give rise to a new geopolitics of technology, centred around surveillance and data capture. This new system is unstable in itself and fundamentally destabilizing for the broader economy and society. Precarity, as such, seems to be inevitable in the bleak anti-human scenario of AI takeover against the backdrop of the pandemic.

**Food delivery and labour in Asia**

Asia is a continent full of complexities. In the contexts of illiberal regimes such as China and Thailand, posthuman tech giants are often reincarnations of state-sponsored crony capitalism; whereas in the exceptional cases of more or less functional democracies such as India and Taiwan, the rise of privately owned platforms also creates conditions
when ‘the entire electoral process becomes void, losing the substantive content of legitimacy’ (Kalpokas, 2019: 43).

Across Asia, however, an argument can still be made that, as in other continents, Covid-19 creates a special moment for the digital economy to return to use value – for example, through food delivery services that meet sustenance needs – rather than the accumulation of speculative exchange value. As contended in *Working-class Network Society* (Qiu, 2009), existential crises facing the information have-less spur essential needs on the ground that give rise to use-value-oriented creativity. Socio-technical innovations since the pandemic outbreak indeed represent a continuation of this pattern, triggered by crises but leading to new praxis, agency, and solidarity.

Yet food delivery and other location-based services are also uniquely important because they are highly geo-tethered, depending on embodied forms of labour and the physicalities of living labour. This differs markedly from cloudwork, immaterial labour, or ‘ghost work’ (Gray and Suri, 2019) that is spatially distributed across Asia – especially in South and Southeast Asia – providing the lion’s share of the labour supply at the low end of the global cloudwork hierarchy, according to the Online Labour Index. Food delivery platform labour is also interesting because it continues the thesis of ‘more-than-human assemblage’ following the classic debate on cyborgs with their hybrid materialities that are now extended to the frontiers of data extraction and behavioural control through the smartphone with its ‘[h]uman–non-human assemblages of sensors’ (Chandler, 2019: 34).

Seen through an inter-Asian comparative perspective, the country contexts for food delivery platforms are highly uneven and fluid. By far the biggest is China, whose market size is estimated to be US$124.8 billion (Guanyan, 2021). Yet food delivery in China is also the most consolidated between the duopoly of Meituan and Ele’m. At the other extreme, Singapore has one of the smallest markets in the region (total revenue being US$399 million in 2020), but the tiny island has more than 10 platforms competing fiercely with each other, including both local platforms (e.g. Grab), platforms from nearby ASEAN countries (e.g. GoJek and foodpanda), as well as global multinationals (e.g. Deliveroo).

Between the two extremes of China and Singapore, most markets discussed in this article cluster in the middle with Thailand, Taiwan, and Hong Kong moving closer to the China-style consolidated model, whereas the rest – the Philippines, and Indonesia – are more similar to Singapore, albeit less competitive to varying degrees. This variation across time and space, as observed among food delivery markets across Asia, echoes the emphasis among posthuman theorists on situated knowledge, sense of place, and agency (Andrews, 2019). Still important is to recognize that the level of digital infrastructure readiness and the scope of deployment remain problematic not only in typical Global South scenarios such as the Philippines, where slow and unreliable internet was blamed for causing erroneous food delivery orders. In rural and in some cases, suburban, Taiwan, there have also been complaints about food delivery services being unavailable due probably to corporate profit-maximization strategies that ignore customers in low population-density areas.

There is tremendous variation in the role of the state vis-à-vis the forces of capital, depending on existing and evolving labour regulations in different jurisdictions, as
well as official capacities and willingness regarding enforcement, which often change in response to pressure from local and foreign capital on the one hand, and the strength of the labour movement on the other. A preliminary observation is that local or national capital – given their smaller scale and lack of transnational reach – would be less exploitative and more easily embedded in existing communities and social governance structures, whereas the reverse would be true for global and foreign capital with greater power to lobby policymakers. The latter also enjoys higher trans-border mobility, hence a global and intra-Asian ‘race to the bottom’ (Chan and Ross, 2003).

However, in Asia we also see the reverse. For instance, Deliveroo is a quintessential worldwide food delivery platform, notorious for its exploitation of riders in the UK (Cant, 2019) and elsewhere. But in Singapore, our interviews in May–June 2021 reveal that Deliveroo riders are much more satisfied with their pay and working conditions compared to other platforms. Although the situation may have changed already, this suggests the global size of the platform is only one piece of the puzzle, whereas another – arguably more important factor – is the dynamics of market competition and the platform’s relative positioning vis-à-vis its competitors.

Deliveroo is, relatively speaking, a minor player with merely 7% market share in Singapore, where the bulk of the market share has been divided between local and regional players such as GrabFood and foodpanda (Sheng, 2020). In Hong Kong, where Deliveroo and foodpanda form a near duopoly in the market, the corporate practices of Deliveroo have been much more predatory. The number of platforms competing in the food delivery market is therefore probably more important than the characteristics of the firm itself, be it large or small, Western or Chinese or Southeast Asian.

Unevenness is also played out in the temporal dimension, which market analysts refer to as the ‘roller coaster of food delivery companies in Asia’ (Sheng, 2020). When Beijing had more competing platforms before mid-2017, they offered better pay; whereas after market consolidation, average pay has declined (Qiu et al., 2021). The market structure can be reflected in the smartphone used by deliverers. Whereas in China food delivery couriers are sometimes not allowed to work for more than one platform, in Singapore more than three-quarters of our interviewees (25 out of 32) report they have multiple delivery or ride-hailing apps installed in their phones – a practice of ‘multi-platforming’ which may increase labour control.

The extent to which deliverers exercise solidarity rights and have collective representation also vary greatly. Taiwan has a successful drive of unionization among food delivery couriers since April 2021 (Taipei Times, 2021). In Singapore, the National Personal Hire Vehicle Association (NPHVA) and the National Delivery Champions Association (NDCA) seek to collect riders’ voices and advocate pro-labour policy. Meanwhile, interviewees inform us that food delivery riders have developed a strong culture of mutual help among themselves, as compared to ride-hailing car drivers, in part because of the physically demanding nature of their gigs, their shared vulnerability in traffic accidents, and their lower pay. Also common is the pattern of ‘entrepreneurial solidarities’ observed in the Philippines (Soriano and Cabanes, 2020) and China, when gig workers come together based on their newly assumed identity of grassroots entrepreneurs. If we understand humanization as the antithesis of AI takeover that reduces riders into completely powerless and predictable cogwheels, as a counter-movement to respect riders as
complex human beings with their sociality, physicality, affect, and messy unpredictability, then such collective formations constitute a humanizing process not only for the riders themselves but also through civil society alliance-building beyond the food delivery sector.

Broader solidarity formation can be empowering in democratic governance structures, but in societies with authoritarian tendencies it can also trigger severe crackdowns. In May 2000, Deliveroo Hong Kong, for example, called on the police to suppress protesting riders. A more high-profile clampdown happened in Beijing, when Chen Guojiang, aka ‘Food Delivery Knights Alliance Leader (外送江湖骑士联盟盟主)’, was arrested on 25 February 2021 (South China Morning Post, 1 May 2021). Chen had created a network of nearly 14,000 members to advocate riders’ rights against platform exploitation, especially deceptive strategies by Ele.me, China’s second largest food delivery platform. His arrest by the Chinese authorities led to condemnation by lefty students and labour activists within China as well as human rights groups globally. A similar situation also occurred in Thailand, where labour activists supporting food deliverers had to face a crackdown by the military government.

Finally, Asia’s app-based food delivery sector, like all high-tech businesses around the world, has come under the dual pressure of financial volatility and geopolitics. Prior to the pandemic, gig economy platforms enjoyed almost unconditional investor backing as the favoured child of Wall Street, globally and in Asia. This is no longer the case as investors have flocked to other sectors – medicine, aerospace, and crypto – since the Covid outbreak, which has also accelerated the clash of empires between the US and China. Even without US–China hostilities, Western food delivery platforms are not very successful throughout Asia. Deliveroo has few high-penetration markets besides Hong Kong. Uber Eats is only a significant player in Japan and Taiwan. The Chinese tech giants, Meituan and Ele.me, are limited to the mainland China market only. In Southeast Asia, the juggernaut is GrabFood that operates in eight ASEAN countries but so far has been unable to expand elsewhere, while facing increasing competition from local competitors.

Almost everywhere, protectionism is on the rise, attempting to contain food delivery platforms within national jurisdictions and local rules, where drastic policy change may take place in the event of geopolitical conflicts or a change of political winds, as shown in foodpanda facing backlash in Thailand or China’s moves against Meituan (Ye, 2021) and Didi (Shead and Bursztynsky, 2021). This kind of institutional ‘re-humanizing’ at structural levels heightens precarity for the platforms themselves, which then become even more myopic in chasing short-term returns, given the financial volatilities and geopolitical fragilities, both of which have become more acute during the pandemic.

Control, contest, and solidarity

While there are regional variations, across Asia we see posthuman AI takeover in food delivery, subduing and datafying human labour, in the midst of rising unemployment rates and increasing volatility of the platform economy in this era of Covid-19. Unlike higher-class cultural labour and freelancers seeing themselves as ‘passionate’ and ‘creative’ ‘changemakers’ (Hong, 2015), food delivery riders in general see themselves as
little more than manual labour carrying out system commands to make ends meet. In
interviews and online discussions, riders in general are less vocal compared to ride-
hailing drivers. Yet, their voices are amplified due to the construction of food delivery
riders as ‘essential workers’, along with medics and caregivers. The differences are
that most of their care work is devoted directly to the food orders and only indirectly
to the customer humans; and that they are under more omnipresent algorithmic control
that treats riders as non-human objects like drones or robots. This creates a unique
tension, within which riders cultivate ‘contingent agency’ (Sun and Chen, 2021) and
play their role in the cultural shaping of crisis via public discourse as well as everyday
practice.

**Power over the assemblage**

Food delivery platforms exert automated control over riders through Big Data, algorithmic surveillance, and corporate AI. More-than-human assemblage, a key notion from posthumanism, applies here more to the management side than to labour when the power of capital and managers is magnified to exercise near-total domination over the work process, from order dispatch to route design to the calculation of monetary rewards or penalties. The scrutiny of and control over riders are meticulous, with AI taking over the decision-making power, which results in not only high-intensity work pace and subsequent burnout (Chen and Sun, 2020) but also sometimes egregious commands, such as the notorious case of Chinese platforms directing riders to violate traffic rules and putting them in harm’s way, in some cases causing fatal accidents (*South China Morning Post*, 2017). Yet, despite direct managerial dominance over the work process, food delivery companies continue to refer to riders as ‘partners’, ‘freelancers’, and ‘self-employed’ (Sun and Chen, 2021; Wood and Lehdonvirta, 2019) in order to evade social responsibilities and reduce cost for platforms (not for riders or society at large).

More-than-human assemblage is imposed and internalized, in many cases, through gamified points or levels systems like those used in mobile games. A delivery worker has to work long hours and accept most orders, good or bad, while treating the platform and customers as gods. If s/he really tries to ‘be their own boss’ and chooses to reduce work hours or decline more orders, then s/he would automatically be demoted to a lower level with reduced piece rate per delivery (Sun, 2019). The specificities of the physical-and-algorithmic hybrid are decided from the top down, while the platforms care little about riders. The most immediate factor impacting the delivery process is road conditions. According to a 23-year-old rider in Singapore:

Traffic? It can get quite dangerous. Some may not know how to respond to bicycles on the road. Once I rang the bell and someone jumped in front of my bike, instead of away from it. You need to react on the spot. Sometimes the system is flawed, and they send you [to] far locations and it just gets further and further, then you might need to cycle 40 minutes to go home.

A common concern among riders in Beijing is that their e-bike batteries can easily be stolen, causing them considerable financial loss. This is an issue that can be addressed through an additional protective accessory for their e-bikes. Yet, the platforms chose
to neglect this. In Singapore, most interviewees expressed discontent about their platforms providing substandard hotline services when they need help. According to a 21-year-old rider: ‘The dispatcher does not concern me as I am used to their inefficiency. I know that they cannot help me with my problem, hence I do not contact them and instead, I try to solve the problem myself.’ In both Beijing and Singapore, the posthuman turn in food delivery operates through its omnipresence as well as its selected absence.

For riders, there is a wide spectrum of machine–human physicalities and more-than-human assemblages when it comes to their mobility equipment, which allows for them to have more control over the assemblage to certain degree. Most common are simple human-powered bikes, electronic or power-assisted bikes, and gasoline-powered motorcycles or scooters being used as delivery vehicles. When private hire-car drivers joined food delivery in certain markets during the pandemic, this caused much resistance from existing riders.

Another type of vehicles is personal mobility devices (PMD), such as e-scooters and hoverboards. Because it can be difficult to find parking space for motorcycles or bikes in Singapore, some young riders choose PMD as their delivery vehicles, which they can carry all the time, including when going up to the customers’ apartment buildings. One such PMD burst into flames in April 2021, killing a 20-year-old rider who was delivering food in a lift (Kwee, 2021). The posthuman assemblage can thus have fatal consequences.

In both Hong Kong and Singapore, our interviewees include people doing delivery on foot, who are called ‘walkers’ or more vividly ‘foot soldiers’ (boubin in Cantonese). In Jakarta, AtozGo is an app designed specifically for food delivery from restaurants in shopping malls to customers waiting in their cars in the mall parking lots, a pandemic-time service because the customers were trying to minimize their exposure to the virus by remaining in their cars as much as possible. Although walkers need no vehicle for their gigs, they nonetheless follow commands from the app controlled through corporate algorithms.

While the discussions in this section shed light on the specificities of the AI takeover in Asia’s food delivery landscape, it is important to note that the top-down, posthuman capitalist management systems in food delivery differ remarkably from the intellectual post- and transhumanism driven by technological change and/or urban design logics. Nor are they sufficient to describe, let alone explain, the digital labour process in full because, besides managerial posthuman control, there are also worker-driven posthuman innovations that are essential components of the cultural shaping process.

Food delivery as ‘sticky labour’

Among the first questions in our interview, we ask: ‘Do you feel you can be your own boss?’ In response, most riders say they appreciate the chance to have control over their work hours, albeit not over pay or the work process. It is inadequate to interpret this reply as mere neoliberal subjectivity, because a traditional 9-to-5 work schedule indeed cannot meet the practical needs of many riders, especially those with the lowest income and special disadvantages, for example needing to provide long-term care to family members. Beyond the discourse of flexible and precarious labour, here emerges
‘sticky labour’ (Sun et al., forthcoming), a process that has accelerated during the pandemic.

Consistent with what was observed in working-class network society, where existential crises spur grassroots needs that in turn trigger socio-technical innovations (Qiu, 2009), sticky labour highlights a paradoxical state of in-betweenness. When riders find themselves stuck with the platforms, the platforms too become less capable of running away to partake in the ‘race to the bottom’. In the discourse of media design, ‘sticky’ was first used to describe the capacity of social media companies to keep users from browsing away from their sites, to keep them ‘glued’ while attracting them back repeatedly (Luttrell, 2018). The terms was extended to refer to the social, cultural, and political dynamics of WeChat beyond interface design (Chen et al., 2018).

In labour studies, platform-manipulated stickiness is comparable to employers withholding passports and personal ID in order to reduce employee mobility, stabilizing and disciplining labour (Kaur, 2010). Yet there are notable specificities in food delivery. The recession caused by Covid led to more layoffs and an expanded labour pool ready for exploitation by the platforms. But the same macroeconomic condition also means increasing number of deliverers cannot leave the gig economy because their livelihoods depend on it. Rather than ‘flexible’, they are subject to a ‘de-flexibilization’ that was already set in motion before the pandemic (Sun et al., forthcoming).

This is a key finding from two waves of surveys conducted among deliverers in Beijing in 2018 (N = 1339) and 2019 (N = 771), respectively. The findings are surprising in that 90% of deliverers report that their income from the food delivery platforms is also the main income for their families. Meanwhile, due to the platforms’ AI-controlled labour management systems demanding a more stable labour supply, the proportion of full-time deliverers had risen drastically from 40% in 2018 to 75% in 2019, when part-timers had fallen from 60% to 25% over the same period. A similar trend of de-flexibilization can be observed in other Asian countries, for instance in Singapore, where the majority of riders we interviewed in June 2021 reveal that food delivery is their only source of income.

When gigs become full-time and ‘sticky’, platforms become in a way not too different from industrial factories, where workers gather to foster collective agency and solidarity. Part of the capitalist logic of the AI takeover through gig work is precisely about removing the social basis for collective formation. Yet, paradoxically, in making precarity a constant, it also paves the way for ‘contingent agency’, as Sun and Chen (2021: 22) argue:

workers’ agency is contingent not only upon the assorted forms of precarious and transitory job opportunities on offer in platform capitalism at its current stage, but also upon workers’ certain degree of identification with the flexibility and risk embedded in platform work.

The essence of sticky labour lies in its dualistic nature – partly fixed, partly fluid; partly rigid, partly malleable – for both labour and management. This echoes discussions in posthumanism stressing that agency is material, embodied, and distributed, including among working-class groups such as riders. On the one hand, their agency is not merely about human subjects but also high-tech and low-tech objects (e.g. data and software) that can act and influence on their own or form connections with other objects. On
the other hand, human bodies and objects ‘act and are experienced together’ (Andrews, 2019: 1112) to create distributed agency that is based on habitual sensory experiences and situated knowledge.

Riding to deliver food is such a typical posthuman activity when the essential objects – vehicle, food package, roads, traffic lights, and smartphone, including the digitally materialized platform instructions displayed on the phone screen – are now mingled with the objects of the pandemic: masks and personal protective equipment, rules of social distancing, contact tracing sensors and software. The human–non-human ‘sticky labour’ assemblage can be particularly sensory and affective under conditions of bad weather, traffic jams, and air pollution. A case in point is a 33-year-old rider, who is pregnant yet still delivering food because she needs the money:

I don’t think outside companies want to employ pregnant women…. But it takes me longer because I am quite heavy already. I am 9 months pregnant. It takes some time for me to deliver to customers, so I am hoping for the customer to understand me.

Due to the embodied nature of food delivery, compared to ride-hailing drivers delivery drivers would talk more often about their cultures of solidarity because they know, and they also experience, the physicalities of working through the tropical rain, or congested and polluted streets, or when the body is ‘quite heavy already’. They are more willing to express that they enjoy their work because they like the social dimensions of talking to other riders and helping each other out. Such a culture of solidarity, however, is limited to selected groups of deliverers who share racial and ethnic identities and social class positioning. It does not extend to ‘others’, such as private-car drivers joining the food delivery sector. In Hong Kong before the pandemic, 80% of deliverers used to be of South Asian descent. But since the Covid pandemic, the proportion has decreased to about 50%, and most newcomers in the trade are ethnic Chinese. Conflicts have become more common across racial lines (Lam, 2021).

Across Asia, it is very common for food deliverers to target their criticism against customers (who order food on the apps), restaurant employees (who prepare and provide food), and security guards (especially in gated communities or communities under pandemic lockdown). Comparatively, in our interviews and observations of online discussions, it is less common for deliverers to criticize the platforms. Instead, many tend to express gratitude, despite the fact that they also talk about being abused and subject to unfair treatment. Sticky labour is, as such, a love–hate relationship between riders and platforms, as well as among riders and other working-class groups that they have come into contact with. It is messy, contingent, sometimes unpredictable, therefore ‘re-humanizing’, with human complexities.

**Contesting platform power**

As mentioned earlier, compared to ride-hailing drivers, food delivery riders speak up less often because they are more caught up in the hand-to-mouth mode of work with a lower piece rate per delivery, and they are often less educated. Most of them are reluctant to talk openly about resistance, yet at critical moments of collective grievance their apparent
submissiveness in everyday discourse would not stop them from participating in protests, strikes, sometimes militant clashes with platform management and/or local authorities. According to China Labour Bulletin, the number of food delivery worker strikes increased from 9 in 2016 and 10 in 2017 to 57 in 2018 and 45 in 2019.

Across Asia, large-scale collective action is often caused by platform policy changes regarding pay cuts. A typical pattern is that, after the platform gains a certain market share, it would change its algorithm that calculates payment for riders in a unilateral way, without any consultation or prior notification. With more laid-off workers joining food delivery platforms during the pandemic, it is common to hear riders reporting that their per-delivery pay has declined 30–50% from the level before Covid. A struggle against such unilateral actions took place in November 2020, when foodpanda Philippines changed its ‘grades’ system in ways that led to decreasing pay. Affected deliverers soon organized ‘unity ride’ protests in Manila, and exerted pressure on the platform through pro-labour legislators and a meeting with Philippines’ Labour Secretary Silvestre Bello III (Limpot, 2020). Not only did foodpanda back down under pressure but the platform made an unusual gesture to distribute ‘noche buena’ package a month later during the Christmas season to repair its corporate image (Panay News, 2020) (Figure 1).

Pressure on platforms may result from collective action or individualized acts of desperation, for example, the rider who set himself on fire, and died subsequently, to shame China’s second largest platform, Ele’me, because of unpaid wages (Borak and Hu, 2020). Extreme acts such as self-immolation would not have been able to enter public discussion without being either documented in social media by citizen journalists (including riders who have become YouTube influencers) or professional reporters, especially those who conduct investigative journalism.

This was the case in September 2020, when an in-depth report about the working conditions and grievances of food delivery labour appeared in Renwu, the People magazine in China, entitled ‘Food delivery riders, trapped in the system’ (外卖骑手，困在系统里;
The article went viral and caused a public opinion avalanche. Even People’s Daily jumped on the bandwagon, with an opinion piece entitled ‘Stop “deadly food delivery”: Don’t allow technology to become tools of exploiting riders’ (杜绝‘以命送餐’: 莫让技术成为压榨外卖员的工具), accompanied by the official newspaper’s infographic visualizing the posthuman work process. The writing in the middle of the image (Figure 2) reads: ‘Algorithms ought to be bridges of connection, rather than mazes designed for control.’

More than cultural expressions and media discourse, such coverage created a climate of opinion favouring regulatory intervention while impacting investors’ decision-making. As a result, both of China’s leading food delivery platforms, Meituan and Ele’me, issued statements announcing that they were adjusting their interface design and algorithms to make the work process more humane and less dangerous. Ele.me added a button to their app so that customers can indicate that they don’t mind waiting for an extra 5 or 10 minutes for their food to arrive. Highly graded riders would no longer need to worry about being penalized if some of their orders went over the time allowed by the algorithm. Meituan also announced a change in their algorithms so that a flexible amount of 8 minutes will be allocated to each order if there are bad weather conditions or accidents. Such changes debunk the myth of an AI takeover in demonstrating that platforms are not black boxes: food delivery companies can be held responsible and both algorithms and app design can be altered and re-humanized.

Serious injuries and occupational deaths, especially when young riders are victims, can arouse strong sympathy from journalists, officials, investors, and citizens. This is a tragic pattern observed in the past (Qiu, 2009, 2016). The pandemic adds another layer to the opinion and policy process because, due to Covid lockdowns and travel restrictions, riders are being recognized, sometimes celebrated, as ‘essential workers’ in media coverage and online discourse. For those staying home due to Covid restrictions, their encounters with food delivery riders, albeit brief, are among the very few human contacts that can be expected to occur on a regular basis. Hence the sentiments of empathy when riders are physically harmed during the work process, producing a collective basis of affect that would support efforts to re-humanize the platform economy.

Physically-based sociality and sentiment-based collective agency, however, can be appropriated by populist regimes for their political goals, for example, the right-wing BJP (Bharatiya Janata Party) was promoting a left-leaning pro-labour policy in the West Bengal election of March 2021. These forms of sociality and sentiment also provide rare opportunities for the platforms’ social branding endeavours both to respond to rider protests (e.g. against foodpanda Philippines) and damaging news coverage (e.g. against Ele’me and Meituan in China), and to pre-empt potential future risks, as was observed in Brazil and Portugal (Raposo and Terra, 2021). The contestation of platform power is, therefore, an ongoing process with its sociocultural complexities and political-economic uncertainties.

**Humanizing the posthuman**

Covid-19 creates a unique posthuman moment. It expands the gig economy of food delivery and escalates AI takeover to a larger scale at a new level of control through ultra-rationalized
and exploitative algorithms. It continues and deepens the trend of human–non-human assemblage while pushing it to breaking points, when collective action and individual acts of desperation start to break out, creating new openings for solidarity formation, public opinion pressure, and pro-labour policy change both within the platforms and through cultural agents across Asia, including food delivery riders themselves.

Posthuman AI takeover is accompanied, paradoxically, by the ascent of sticky labour, an in-between state that is neither ‘fluid’ (that is, based on completely flexible and

Figure 2. Infographic from People’s Daily commentary – ‘stop “deliver food using life”: don’t allow technology to become tools of exploiting riders’
ephemeral rider–platform relations) nor ‘solid’ (that is, based on long-term employment or fixed business arrangements). This is not a revolutionary development against platform capitalism, but it nonetheless runs against the logic of dehumanized algorithmic control. It brings all the messiness and unpredictability of the human, along with the physicalities and affect, to the AI-controlled food delivery sector, at both individual and collective levels.

Comparing riders’ experiences and discourses across Asia, we see technology-facilitated accumulation by dispossession accompanied by diverse and dynamic modes of resistance, collective agency, and cultural solidarity. This is an instance of ‘southern theory’, with its multifaceted social processes, which extends the ‘dehumanization–rehumanisation dialectic’ (Georgiou, 2021) under circumstances of the pandemic. While riders documenting their lives and struggles through social media have become more influential, legacy media, especially investigative journalists, continue to play a key role as cultural translators bridging labour cultures on and offline with concerned citizens, investors, and policymakers. The pandemic, in this sense, is more an opening and beginning of the ‘new human’ than a crisis that signifies the end of the ‘old normal’.

This analysis borrows from the posthuman critique some of its key concepts, such as more-than-human assemblage. It also adds to the philosophical and cultural debates surrounding posthumanism by focusing on working-class voices and struggles, which contribute to evolving new norms and values of the platform economy, in ways that are distinct from upper- and middle-class gig workers as well as the liberal and libertarian subjects whom early posthumanists have in mind.

What is human? Answers to this question have never been static or singular, which is, after all, a basic contention that underlies all notions of posthumanism. A remaining challenge is to apply inter-Asian referencing in connecting sticky labour and the nationally and city-based posthuman struggles into a continental formation, in connection with parallel forces of re-humanization in the Global South and North. Only in this way can the ‘new human’ transcend locality to become a situated cultural movement with global reach.

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Notes
1. See: https://fair.work/en/fw/methodology/ (accessed 1 January 2022).
2. See: bit.ly/3i6N8aG (accessed 21 December 2021).
3. See: nikkei.com/3rFLYGc (accessed 1 January 2022).
4. See: https://clb.org.hk/ (accessed 1 January 2022).
5. See: bit.ly/2TLwwfi and bit.ly/3icxwCm (accessed 1 January 2022).
6. See: bit.ly/3BWaGGZ (accessed 1 January 2022).

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