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Digital Labour Platforms in the Global South: *Filling or Creating Institutional Voids?*

RICHARD HEEKS, KARSTEN ESKELUND, JUAN ERASMO GOMEZ-MORANTES, FAREESA MALIK & BRIAN NICHOLSON

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Global Development Institute, SEED
University of Manchester, Arthur Lewis Building, Manchester, M13 9PL, UK
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Richard Heeks[1], Karsten Eskelund[2], Juan Erasmo Gomez-Morantes[3], Fareesa Malik[4] & Brian Nicholson[5]
[1]Centre for Digital Development, GDI, University of Manchester, UK
[2]Infocom Group, Norway
[3]Systems Engineering Department, Pontificia Universidad Javeriana, Colombia
[4]NUST Business School, National University of Sciences and Technology, Pakistan
[5]Alliance Manchester Business School, University of Manchester, UK

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Abstract

The impact of platforms in the global South is under-researched. This paper analyses the role of platforms in relation to "institutional voids": absences or shortcomings of formal institutions that can create shortfalls in the operation of markets. Through a mix of primary and secondary research, this paper studies gig economy platforms like Uber and Upwork that digitise labour market functions.

It finds that platforms do beneficially fill voids: creating new and, in some ways, better jobs. But their digital void-filling concentrates power and constrains worker behaviour. Simultaneously, platforms maintain or create institutional voids, leading to power asymmetries, over-competition between workers, platform opportunism, and job insecurity and precarity. The paper ends by suggesting practical actions to address these downsides of platformisation, and by identifying some future research priorities.

A. Introduction

We are in the midst of a "platformisation" of international development: the growing presence, use and impact of digital platforms in the global South (Koskinen et al 2018), with platforms increasingly mediating social processes (e.g. Facebook), political processes (e.g. Twitter) and economic processes (e.g. Uber, Upwork). Yet, "the developmental implications of digital platforms remain largely understudied" (*ibid.*:1).

This knowledge gap has led to calls for research on various aspects of the platform—development relationship; including specific calls for a better understanding of the role of platforms vis-à-vis institutions in the global South (*ibid.*). One starting point can be the concept of "institutional voids", understood as an absence or shortcoming of formal institutions (Rodrigues 2013). These are found in every country but they are particularly prevalent in shaping – indeed, constraining – economic activity in the global South (Khanna & Palepu 2010).

There has been an argument that digital platforms can fill institutional voids and thus create more-efficient, more-effective economic markets in the global South (World Bank 2016). However, conversely, there has been an argument that platforms may be "de-institutionalising" Southern markets; for example, bypassing or even undermining formal government rules and regulations (Beerepoot & Lambregts 2015). Yet such arguments have to date been based on little research and evidence.

This paper addresses this gap by investigating the relationship between digital platforms and institutional voids in the global South. The chosen domain is gig economy platforms, defined as sets of digital resources – including services and content – that enable value-creating interactions between consumers and individual service-providing workers (Constantinides et al 2018). Examples include Uber, Upwork, GoJek and Zomato.

Following a review of literature on institutional voids and markets, the paper presents the primary and secondary research that then forms the basis for a set of findings. The paper ends with discussion and conclusions.

B. Understanding Institutional Voids

Foundational work on institutional voids is that of Khanna and Palepu (2010), who define voids as shortfalls in the "range of institutions to facilitate the functioning of markets" (*ibid.*:10). Specifically, they identify (*ibid.*:57-58) six market institutions that may suffer some type of shortfall:

- Information analysers and advisors that "collect and analyze information on producers and consumers in a given market".
- Credibility enhancers that provide "third-party certification of the claims by suppliers or customers".
- Aggregators and distributors that "provide low-cost matching and other value-added services for suppliers and customers through expertise and economies of scale".

- Transaction facilitators that “provide a platform for exchange of information, goods, and services, support consummating transactions”.
- Adjudicators that “resolve disputes regarding law and private contracts”.
- Regulators and other public institutions that “create and enforce appropriate regulatory and policy frameworks”.

Three elaborations are needed here. First, the concept of institutional voids refers here only to shortfalls in formal institutions, such as government regulations or market-intermediating functions, rather than to informal institutions such as behavioural norms (North 1990). Indeed, it is recognised that informal institutions may often substitute for formal institutions where there are shortcomings in the latter. Second, the widely-used definition of institutions – “the humanly devised constraints that shape human interaction” (*ibid.*:3) – is here reversed since the focus is on institutions that facilitate rather than constrain. Third, the shortfalls may be absences in some circumstances but may also be ineffective presences. For example, there may be limitation in the implementation or operation of formal institutions, or inconsistency due to institutional ambiguity e.g. overlapping domains of formal institutions (Rodrigues 2013).

Institutional voids are particularly associated with the global South but they are also present in countries of the global North (Anheier 2014). Hence, it would be quite wrong to equate the former with some generalised institutional emptiness. Lower-income countries are just as institutionally-rich as countries with higher income but there are shortcomings in some formal market functions that, while found universally, are more prevalent in the former (Wang & Cuervo-Cazurra 2017).

These features can be summarised in relation to labour markets, given these are central to the functioning of the gig economy. Southern labour markets are characterised by information failures that impact the first two of Khanna & Palepu’s institutional categories – information analysers and advisors, and credibility enhancers – since both are fundamentally about the provision of information (Maloney & Nayyar 2018). Information on key features of a market may be absent either because data is not gathered or because it is trapped in analogue form that cannot readily flow to market actors. For example, potential clients are often unable to identify who or where relevant workers are or what their typical costs should be (Parmigiani & Rivera-Santos 2015). They might be able to gather such information but this would be at very high cost. Other information – for example about the expertise of workers or about the quality of their work – may be available but the accuracy of that information is uncertain; based on certificates of uncertain validity or simply the word of the worker. Workers may well be in a similar position vis-à-vis the reputation or honesty of their client.

Because of these informational frictions plus the high costs of communication and transport, it is difficult to aggregate clients and workers into a market. Instead, labour transactions may be undertaken on a very localised or even individualised basis, with an individual worker hired by an individual client for lack of knowledge of each party of other options (Stiglitz 1982). These transactions may often be quite informally undertaken; without any formal contract and relying on cash payment with workers finding at times that they are paid late, paid less than agreed, or even not paid at all. Clients are able to do this due to the power imbalance between them and the workers. There is a similar pattern with labour regulation where policies may well be present but more honoured in the breach than the observance. Thus, for example, legislation on minimum wages or on health and safety has been passed but implementation is limited and uneven; to the extent that it does not impact significant numbers of workers (Rani et al 2013, Berliner et al 2015).

At its most extreme, the impact of these institutional voids would be to prevent the formation of a labour market. This was not the case here but, instead, institutional voids have led to a set of features in labour markets (Behrman 1999, Fields 2011, Das 2013). They are inefficient because of the relatively high costs of information search, transactions and enforcement. Thus the costs of goods and services provided by these markets is higher than it needs to be, with a negative knock-on into consumption and overall economic growth. The labour markets are also ineffective and prone to adverse selection with, for example, clients choosing workers who then produce poor-quality outputs or workers choosing clients who treat or pay them poorly. These labour markets are incomplete, being much smaller than they might otherwise be and thus constraining available employment. They tend to be localised, involving actors who can physically communicate. And many potential buyers and sellers do not participate because of the high costs and/or because they do not trust the market to deliver either the labour services or the nature of work that they want. These labour markets are informal due to the absence of the formal institutions discussed above. They therefore tend to run along the lines of existing social structures and norms such as patron-client relations or discrimination against minority groups. Informality can also encourage opportunistic behaviour in the absence of formal constraints, such as cheating or corruption. Finally, these labour markets are inequitable. Because of their relative informality, benefits of the markets tend to flow to those with greater power. Powerful individuals or groups – more often clients than workers – are able to capture marketplace rents e.g. in the form of adversely-low payments to workers, or they introduce moral hazard by shifting risks onto the other party e.g. avoiding costs of providing a safe working environment. Less powerful individual or groups – women, immigrant groups, the disabled – find themselves excluded or receiving worse terms than those with more power.

The literature on voids and development therefore sees voids in simple terms as problematic, as something that business can fill in order to improve market functioning (Rodrigues 2013).

C. Methods

Into this context of labour market shortcomings in the global South have come digital labour platforms covering two types of gig work: physical gig work involves location-bound physical activity such as taxi driving, food delivery and house cleaning; digital gig work involves location-independent digitally-centred activity such as data entry, translation and web development. These are one of the most-common types of platform, with estimates that up to 40 million workers are now employed via them in the global South; a figure growing by as much as 30% per year (Heeks 2019). Evidence on the institutional and market impact of these platforms was gathered from primary and secondary research. Primary research was undertaken at the University of Manchester with the author as research co-investigator or supervisor: digital gig economy platforms in Pakistan (led by Fareesa Malik); ride-hailing platforms in Colombia (led by Juan Gomez Morantes); digital gig economy platforms in the Philippines (led by Karsten Eskelund); physical and digital gig economy platforms in South Africa (fieldwork undertaken by the author). Evidence from secondary research was obtained through a review of literature on physical and digital gig work platforms.

D. Findings

Findings are grouped into four void-related categories: information (covering Khanna and Palepu's information analysis and credibility enhancement roles), aggregation, management (covering Khanna and Palepu's transaction facilitation and adjudication roles), and regulation.

D1. Information

A core affordance of digital platforms is provision of data that can be used as transaction-related information by both consumers and producers. Verified information falls into three main categories:

- Worker-related, including their identity, quality of task performance based on star rating, and sometimes their experience based on checking of licences or training.
- Client-related, though much less complete than that for workers, may include some level of identity verification and sometimes a star rating.
- Task-related, including prior information on nature and likely cost of a task, and information on progress with a task.

This provision has in part addressed the information voids that are typical of Southern labour markets; providing information that was previously absent and/or reducing the cost and uncertainty, and increasing the quality of that information. It has also reduced some information asymmetries between workers and clients: both sides of the market now know more about each other than they would previously have done.

This has had the effect of reducing adverse selection within labour markets but mainly to the benefit of clients who have greater opportunity for choice than do workers. For example, with ride-hailing in Colombia and South Africa, client personal insecurities were reported to have significantly reduced thanks to worker identification. To some degree, workers are able to avoid choosing bad clients. Digital gig workers in Pakistan, India (D'Cruz & Noronha 2016) and Indonesia (Crosby & Rina 2017) reported avoiding clients with poor ratings or tasks that appeared to be of poor quality, and also reported fewer problems with clients than they had experienced with off-platform work. Taxi drivers in South Africa working at night said they could now identify and try to avoid picking up cash-only clients or those wanting to go to unsafe areas. By therefore reducing the risks of adverse selection, the digital platforms have increased trust of both parties in transacting, which has encouraged both sides of the market to fill, and also encouraged greater use of the market by those who have entered it.

However, platform-based markets create strong voids in terms of the information asymmetry between what the platform and its managers know, and what other stakeholders know. When workers entered into disputes with the platform, they always found themselves at a disadvantage: platform managers would know more than they did about tasks, locations, payments, etc. This asymmetry also occurred at the meta-level: the interviewed platform workers across Asia and Africa had little or no idea what data the platforms held about them.

D2. Aggregation

Where platforms are successful, they fill a void by aggregating larger numbers of clients and workers than non-digital local markets are able to. EasyTaxi in Colombia and Uber in South Africa were able to bring together thousands up to tens of thousands of taxi drivers, and tens up to hundreds of thousands of taxi users. Upwork had a similar scale of worker availability in Pakistan and the Philippines and many other Southern countries, and a much greater number of clients – millions – because of its global scale.

This aggregation has facilitated job creation in the global South. There is some evidence of commodification of labour: of paid work being created that either substitutes for personal labour (e.g. clients using taxis instead of driving themselves) or creates new work (e.g. clients saying that, without a platform, they would not have proceeded with a task) (Agrawal et al 2013, Dreyer et al 2017). And there is some evidence that platforms are shifting digital gig work from global North to South: different surveys and questions report anywhere from 20-50% of global North Upwork clients indicating they would have used a local worker in the absence of the platform where, now, the majority of workers are based in the global South (Agrawal et al 2013, Codagnone et al 2016). For some individual workers, then, platforms were addressing challenges of un- and under-employment. For example, one quarter of Indian digital gig workers reported that they had been unemployed prior to gaining employment on the platform (Berg 2016). Prior unemployment was rarely reported for physical gig workers in Colombia and South Africa but underemployment was; at least in terms of not earning enough.

Some groups were also benefitting from the platforms' institutionalisation – standardisation and formalisation – of criteria and processes for inclusion within the labour market; typically replacing informal institutional norms that create what is often a variable, subjective and discriminatory hiring process. Disabled workers in the Philippines, migrant workers in South Africa, rural workers in Pakistan, lower-caste workers in India (Surie & Koduganti 2016), women in multiple locations (Kuek et al 2015) all reported having been excluded from local labour markets on what they perceived to be discriminatory grounds but then included in what they saw as the level playing field of platform-based labour markets.

The overall result of this void-filling – assisted by formalisation of payment systems, discussed below – was that almost all workers reported their pay levels being higher when starting work on the platform than they had previously been. Examples include Uber/Ola drivers in India and GoJek drivers in Indonesia earning around two-three times more than previously (Surie & Koduganti 2016, Ford & Honan 2017), and successful full-time digital gig workers earning higher salaries than those undertaking similar work off-platform (Kuek et al 2015). These plus other formalisations of work management (see below) meant some workers now felt they had greater certainty of supply of work and income. As a result, there were many examples of workers taking out long-term loans: taxi drivers in South Africa and India (Surie & Koduganti 2016) to buy their own cab; digital gig workers in South Africa and India (D'Cruz 2017) to fund degree study.

However, there are two problems with the filling of this institutional void. First, platformisation of work raises market entry barriers through two platform affordances: digitisation and formalisation. Those in Pakistan and the Philippines who lacked reliable access to digital devices and connectivity, or who lacked sufficient linguistic or digital literacy, were excluded from these labour markets. Likewise, more rigorous checking of identity documents and licences will exclude some; as was reported to have occurred with taxi platforms in Colombia. The affordances may also be combined: some aspiring digital gig workers in Pakistan were unable to undertake platform work because there was no access to formal digital payment systems such as PayPal.

Second, platforms tend to aggregate asymmetrically; likely deliberately so (Evans 2003). They allow greater supply of workers than demand from clients in order to reduce the chance that clients are unable to find, or have to wait excessively for, workers to perform their tasks. This can result in overly-competitive behaviours typical of labour markets with excess supply in which workers struggle to earn enough from constrained demand (Sapsford & Tzannatos 1993). Some workers self-exploit in terms of working hours: one fifth of South African physical gig workers reported working over 90 hours per week, and all digital gig workers reported working during the night at times. There was also some evidence of a race-to-the-bottom in terms of pay: digital gig workers in Pakistan and other global South countries (Graham et al 2017) reported going well below minimum levels they had set themselves, just in order to earn something. More generally, then, the asymmetrical population of platform markets meant informed adverse selection was occurring. Some digital gig workers, especially those with limited reputational ratings that they were seeking to develop, were choosing what they knew to be poor-quality or poorly-paying tasks – amounting to just a few cents an hour in some cases. Very occasionally, physical gig workers were choosing what they knew to be risky tasks; for example, manoeuvring around working hours restrictions by swapping from one platform to another, and continuing to drive while over-tired.

There has also been a dynamic at play in terms of asymmetric aggregation. During the early phase when they are building up the market, platforms incentivise both workers and clients to join. As supply of labour builds up and then crosses into over-supply, those worker incentives are no longer required and platforms' market management means they can be removed. Thus taxi drivers and deliverers in South Africa plus those in India (Ilavarasan 2018), Indonesia (Ford & Honan 2017), Kenya and Nigeria (de Freytas-Tamura 2017) report falling income over time through a combination of the platform worsening their payment terms, and finding it a little harder to get clients as the supply—demand balance tips. They were therefore starting to slip back towards under-employment, with the supply—demand imbalance universally reflected in comments of both physical and digital gig workers in all locations that they would have liked more work. The perceived bait-and-switch tactic of platforms – luring workers in on expectations of particular levels of income but then making changes – has led to direct reactions from workers: strikes in all locations and reports of workers in India committing suicide due to inability to repay their loans (NIE 2017).

D3. Management

Platforms formalise work payment systems: determining prices and handling payments digitally. This reduces cost, delays and uncertainties and increases the efficiency of transaction payments. Opportunities for fraud are reduced: for example, no workers reported being mis-paid by the platforms. As noted above, greater certainties about, and trust in, the payment system had encouraged workers to extend their time horizons and engage in longer-term activities such as loans; with both positive and negative implications. Formalisation of payment systems has also been a mechanism for financial inclusion. A number of workers, particularly those working for physical gig platforms, reported that they had not previously had a bank account but had been induced to get one by the payment requirements of the platform (see also Hunt & Machingura 2016).

There has also been a formalisation of work management processes and systems, particularly through digitisation. Worker registration and market entry, as already discussed, are formally managed and recorded. The process of work is now digitally recorded and monitored. Many workers were pleased about what they saw as the elimination or at least reduction in the human caprice that bedevils the lives of many in more traditional employment. This was discussed already in relation to market entry but interviewees in both Africa and Asia also cited what they saw as escape from earlier examples of unclear requirements, unfair demands or unreasonable behaviour of clients, or favouritism or discrimination among managers (see also Crosby & Rina 2017).

In addition, physical gig workers in South Africa and India (Surie & Koduganti 2016) and digital gig workers in the Philippines, South Africa and India (D'Cruz & Noronha 2016) almost always talked about increased autonomy and greater flexibility, for example in selecting the timing and sometimes location and (for digital gigs) content of their work. This arises from their lack of direct human managerial oversight and the freedom they perceive they have to pick and choose their "gigs".

This perception of agency is arguably illusory given the extent of digital management of work. This was seen in two ways. First the heavy dependency on star ratings led to a significant narrowing of worker behaviours deemed acceptable. This was positive for clients with improvements in driving standards and personal interactions, and reduction in over-charging. But it constrains workers and also leads to investment, reported by workers in both African and Asian cases, in affective labour – "making nice" with all of their clients and/or undertaking unpaid extra work – in order to try to secure a good rating.

Alongside the performative requirement induced by the rating system, some were dissatisfied with digitally-based management, which became most visible to workers when there was a problem. For example, digital gig workers in Pakistan reported frustrations when they were unable to satisfactorily settle disputes with clients. Physical gig workers in Colombia and South Africa reported examples of worker deactivation without a clear rationale. Digging into these concerns for specific examples, it was difficult to evidence unreasonable behaviour on the part of platform management. It was more the perceived opacity of processes that concerned workers, and their lack of understanding of, and power to influence outcomes.

D4. Regulation

While the specific processes of market entry may have been formalised, the employment status of workers retains some element of void with platforms having sought to avoid being brought within purview of existing government legislation. Most platform workers are not legally employees of the platform but are independent contractors; often rather disingenuously referred to as "partners" by the platform. This is a status that can be little better than that of contract-less informal sector workers and certainly falls well short of the legal protections and other benefits provided to formally-contracted employees. In terms of direct pay and conditions, very few platforms provide any guarantees of paying the minimum wage. Considering broader social protections, primary data gathering did not identify any platform that provided sick leave, paid holiday, paid general health/life insurance, or pension.

In relation to collective representation of workers, a few larger platforms have created some heavily-diluted proxies for collective voice intended to serve the platform's own needs. Examples include the moderated discussion forums on Upwork, or the driver focus groups organised by EasyTaxi in Colombia and Uber in South Africa. These provide a controlled environment through which the platform management can learn about potential issues that they might need to address.

However, the essential relationship between worker and platform is individualised and atomised. Consistent with their categorisation of workers as independent contractors, most platforms provide no basis for worker interaction. The location of work is an individual space – the worker's home, the worker's vehicle, the client's home – that offers no basis to meet other workers. The apps provide no means to identify let alone communicate with any other worker. Alongside providing no mechanism or encouragement for worker collective representation, almost all platforms explicitly rule out recognition of or negotiation with worker collective bodies, whether groups, association or unions.

The impact of lack of collective representation is to cede control over the terms of work to the platform; a platform that controls not just work management but also market formation and most market regulation functions. Hence, the ability of some platforms to worsen remuneration over time. This not only leads to reduction in worker income but also introduces uncertainty into the employment relationship, with workers feeling they are at the whim of the platform's managers with little power to have their views taken into account. Hence, and over time, the tropes of informal sector employment were emerging in platform work with workers reporting job insecurity and a contingency of commitment to the platform (see also Surie & Koduganti 2016).

E. Discussion

The review above identified a narrative of institution formation within the literature on platforms and development (World Bank 2016). Evidence was presented here which supports that narrative. The literature on institutional voids and development – specifically the work of Khanna & Palepu (2010) – was shown to provide a useful frame for systematic analysis of the process of institution formation. Platforms provide new, better and often verified information about workers, tasks and – to some extent – clients. Platforms can aggregate much-larger numbers of clients and workers into a single market. Platforms facilitate all aspects of transactions making them quicker and cheaper than previously.

As the voids-and-development literature (Wang & Cuervo-Cazurra 2017) would predict of void-filling interventions, platforms have therefore addressed a number of the shortcomings sometimes found in global South markets. While platforms have not formed new labour markets in the cases researched, platform-based markets are much more efficient and have reduced transactions costs for both clients and workers. Problems of adverse selection have been reduced, leading to greater trust in the market. This, along with aggregation has broadened market scope – to global level in the case of digital gig work – and shown potential to bring far more actors into the market, and to create new jobs. Many of the informalities that characterise traditional markets have been removed and, along with them, some of the related opportunism, exclusions, biases and inequities.

The literature on voids in the global South (Rodrigues 2013) has not ventured much further than this: seeing voids as a problem that business can beneficially fill. The evidence provided here adds two insights. First, void-filling can have its downsides. Formalisation through digitisation has excluded some workers from employment. It has narrowed the acceptable behaviours of workers, clients and managers, but this can constrain workers and render management processes opaque to them. Filling of all the market institutional functions by a single business – the platform – as opposed to their being distributed across various actors concentrates power, enabling quasi-monopolistic exploitation and rent-seeking.

Second, void-filling is not the only thing that digital platforms do. Consistent with the de-institutionalisation narrative in some platforms-and-development literature (Beerepoot & Lambregts 2015), the evidence here found institutional voids that have been maintained or even created by the platforms. Information does not flow freely in platform-based markets with strong asymmetries between: clients and workers; platforms and workers; and platforms and government. Aggregation has been uneven, with supply exceeding demand through deliberate engineering of the market. Labour regulations, standards and representation are often absent – this sometimes representing more of a void than traditional employment alternatives, and summed up by the platforms' general refusal to recognise workers as employees. We see the impact of these maintained or created voids in labour market features consistent with those identified in the literature review. There is ongoing ineffectiveness: reflected in the informed adverse selection of workers taking poor-quality tasks in order to maintain income. But the most prominent feature was inequity with the voids creating asymmetries between platforms and other actors.

Between platforms and workers, asymmetries of power and control were visible but distribution of risk was also a key basis for understanding. As an overall picture, it is workers who are on the “front line” of work and bear the risks described above: non-payment, robbery, accidents, police action, etc. When first forming a market, the platform operator bears more of the burden of financial risk. This induced some workers into risky behaviours they would not otherwise have undertaken; specifically taking out long-term loans. Over time, platforms have transferred some of the financial risk back to workers by reducing income and increasing competition for work; sometimes with destructive consequences for individual workers. The broader risk – of not getting enough work and hence of living with job insecurity and precarity – is thus borne by the worker.

In sum, the formalisation and digitisation associated with platforms has squeezed out some of the shortcomings of traditional labour markets: inefficiencies, localisation, opportunistic behaviours of workers and clients. But this has also removed some level of broader knowledge and control over that market. At the same time, platform-based labour markets have retained features of the relatively-informal labour markets that they were supposed to replace: over-competition through labour supply-demand asymmetry, opportunism by the platform, and job insecurity and precarity.

F. Conclusions

The research reported here extends our understanding of the role of digital platforms in development. It shows that the operation of platforms can be understood from an institutional voids perspective; but not merely as void-filling, also as void-maintaining and void-creating. Their void-filling function has many benefits but was also seen to have downsides. Void maintenance and creation was largely problematic; undermining the fair functioning of labour markets and undermining decent work standards for gig workers in the global South.

In terms of recommendations for practice, platforms are to be welcomed – encouraged, even – because of the greater efficiencies and the formalisations that their filling of institutional voids can bring to markets. That void-filling has created better and in some cases new jobs for workers in the global South. However, the institutional voids that platforms maintain or create have been to the detriment of workers, as reflected in the widespread complaints and collective actions taken by platform workers. There is therefore a case for further void-filling. This can take three main forms based on the findings outlined above. Information provision would seek to address client—worker and platform—worker information asymmetries; for example, providing information about platform work standards as the Fairwork project has sought to do about platforms in India and South Africa (Fairwork 2019). Worker collectivisation would seek to address the voids around collective bargaining and action; for example, providing better tools for online worker communication and grouping, and organising campaigns around specific issues such as social protection payments (Colclough & Jennings 2017). State regulation would especially seek to address the voids around employment legislation; for example, getting platform workers recognised as employees or creating a new employment category such as ‘dependent contractor’ that would attract some of the same rights as ‘employee’. A number of jurisdictions in the global

North have made such moves but progress has so far been slower in the global South (Graham et al 2017).

We can finally identify three strands of a future research agenda. First, there needs to be further primary research using a voids-based conceptualisation, applied to a wider range of digital platforms in a wider range of countries. Second, the "platform-ness" of the void-related outcomes varies. Some outcomes can be linked to inherent functionalities of platforms: their capture and distribution of digital data, or their network effects. Some outcomes are the result of deliberate platform design decisions: creation of information asymmetries between workers and clients. Some outcomes derive from business strategy decisions outwith the platform: avoidance of employee status in contracts. Future research could thus differentiate outcomes by relating them to inherent digital functionalities of platforms, to specific design decisions, and to out-platform business strategy decisions.

Third, market voids exist and are filled by platforms in the global North as well as in the global South; likewise with the voids that platforms maintain or create. However, the relatively-better functioning of prior markets in North compared to South means that the balance of impact may be skewed: more towards void filling in the global South; more towards void creation in the global North. If this globally-differentiated picture is valid, then we might anticipate some form of global convergence towards platform-based markets that were more institutionalised than prior markets in the global South but less institutionalised than prior markets in the global North. Future research can investigate existence or absence of this differentiated pattern and any linked convergence of market structure, operation and impact.

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