

Evaluating the Development Impact of Digital Platform Work through the Capability Approach: A Case Study of Uber & Zomato Workers in India

Hiroto Yanaka, Richard Heeks

Abstract—The gig economy – a market system using digital platforms that matches workers and customers for short-term work opportunities – has spread rapidly worldwide, including the global South. Despite significant research on this phenomenon across multiple disciplines, relatively little work has been undertaken from the perspective of development studies and through the use of core development theories. This paper analyses the development impact of the gig economy using Sen's capability approach, operationalised through a framework of five freedoms: economic, political, social, informational and security. These freedoms were developed into a set of core capabilities deemed important for gig workers. Using this set as a framework, we gathered data from gig workers working for Uber and Zomato in India, and from secondary sources on gig work in India. Some workers were able to realise capabilities such as decent income, freedom from ill-health and exclusion, and skill development. However, others were not, and there were general constraints on the achievement of capabilities such as flexible working, freedom of association, information accessibility, social protection, and freedom from harm. This study shows how applying this development theory can enable a direct connection from gig work to development discourse; we develop a systematic and customisable framework for application of capability theory to gig work; and we show the new perspectives on gig work that a capability approach offers in terms of the role of context and choice, the differential value attributed to different freedoms, and the way in which those freedoms are interconnected.

Keywords—Gig Economy, Capability Approach, Digital Development

I. INTRODUCTION

The gig economy has spread globally, with one estimate that there were around 40 million gig workers in the low- and middle-income countries of the global South in 2020 and with growth rates having accelerated subsequently as a result of Covid-19 [1]–[3]. Because of this size and growth and the potential contribution to economic and employment growth, policymakers in the global South have

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increasingly focused on the gig economy and, they have been informed by emerging research on this topic [4]–[7]. While this research has been much less abundant than equivalent research focused on the global North, this has nonetheless helped expose key features – both good and bad – of the gig economy.

But there has remained a gap given the very limited corpus of research to date on the gig economy that draws from development studies. This has meant little if any explicit understanding of the gig economy from the perspective of development theory. To understand what analysis through a development-specific lens might add, we undertook the current study to understand the impact of gig work from the perspective of one of the most widely used development theories, Sen's capability approach [8].

To achieve its aim, this study's research question is: to what extent does the gig economy impact the capabilities of gig workers, and how can its impact on their capabilities be improved? Three sub-questions emanate from this main question:

1. What freedoms are relevant to an understanding of gig work?
2. In capability terms, what functionings are realised and not realised by gig workers?
3. What kinds of initiatives and policies are needed to make the most of the gig economy in terms of capability development?

As noted, there is already research giving insights into the impact of the gig economy, including in the global South. What we add here, therefore, is an understanding firstly of how the capability approach can be systematically applied to understand the development impact of gig work, and secondly of what such analysis tells us about the gig economy from this development perspective. A review of literature on the gig economy follows next, including the extraction of key functionings of relevance to gig work. After a section on methodology, the findings from field research in India are presented in terms of five key freedoms: economic, political, social, informational and security. The paper ends with a discussion and conclusions including some recommendations and suggestions for future research.

II. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

A. The gig economy and digital labour

The gig economy – which we define here as a market system using digital platforms that matches workers and customers for short-term work opportunities – can be categorised into two parts: the digital gig economy and the physical gig economy (see Figure 1). The digital gig



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economy covers location-independent, digitally-centred tasks such as data entry and image tagging via transcription and translation through to data analytics and app development. The physical gig economy covers location-based tasks such as transportation, food delivery and cleaning.

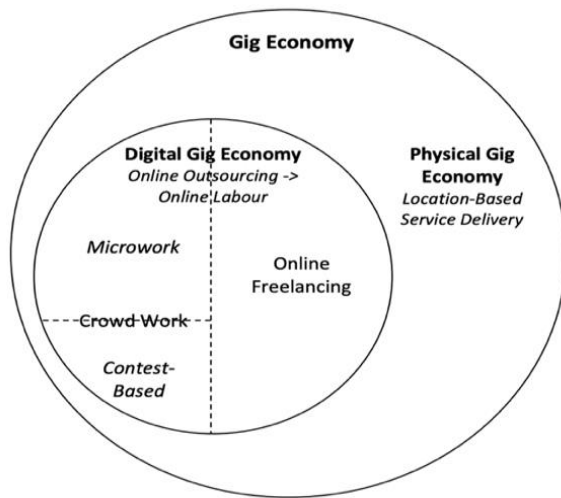


Fig. 1 Categorising the Gig Economy [9]

Digital gig work tends to be relatively high-skill and is not often the main source of income for a worker, e.g. being undertaken part-time to top up earnings from paid employment, or by students to help pay education fees [10]–[11]. By contrast, skill requirements are lower for physical gig work, and, for the great majority of workers, it is the main and typically only source of income: it thus forms their livelihood [10]–[11].

The physical gig economy has therefore been of significant interest to policymakers in the global South [12]. These countries face the economic and social challenge of large numbers of unemployed people, estimated at more than 80 million in low- and lower-middle-income countries in 2020 [10]. Many of those who are unemployed lack skills [13]–[14] and therefore, given its low entry barriers, growth of the physical gig economy is seen as a source of employment opportunities and hence as an important development strategy [10]. Our focus in this paper will therefore be on physical gig work.

B. The gig economy and development

The literature on the physical gig economy in the global South is emergent but growing. Some work takes an economic or institutional perspective; for example, understanding at a meso level how gig platforms create or reconstruct markets or economic sectors more broadly [15]–[17]. However, most of the work has focused on the more micro-level experience of workers such as ride-hailing drivers, food and goods deliverers, and house cleaners.

Some of this work takes a relatively free-form approach to understanding physical gig work [18]–[20]. Others take a more structured approach around frameworks of in/formality or the stream of work from the Fair work project, which uses a framework of five principles of decent gig work developed from ILO standards [7], [21], [22]. Whichever the specific approach, the findings tend to be fairly consistent: physical gig workers benefit from having a livelihood including the

income it brings and from some degree of work flexibility, but their work is at the same time precarious in that it lacks security of employment and can also be dangerous.

This research has given a good sense of the pros and cons of gig work in the global South. Yet what is currently missing is a connection between gig work and the discourse of development. Of the current literature on gig work in the global South, just a tiny handful of papers have been published in development studies journals. Indeed, as author Heeks has experienced, it can be difficult to persuade development studies journals that gig work and the gig economy are a topic of relevance to development. This fits more generally with the recognition of the mismatch between the growing importance of digital platforms in development, and the lack of studies on platforms from a development perspective [23].

This, then, creates the focus for the current paper: to form an explicit connection between development theory and the gig economy; understanding both how to make that connection, and what new insights – if any – are generated from so doing. As noted already, the theory chosen is the capability approach given its widespread use in development, including its underpinning of the human development paradigm. The intention is to understand what physical gig work has to offer in terms of expansion or contraction of the individual freedoms that are the foundation for the capability approach, and to provide a systematic development framework through which to evaluate gig work and to make development-oriented recommendations.

C. Theoretical framework: the capability approach

Development theories such as modernisation, dependency or neoliberalism could be applied to understand the gig economy, but they would give a macro-level perspective that offered little insight into the development implications of gig work. To provide that, we chose to use the capability approach: a theoretical framework based on the idea of “development as freedom” [8]. This focuses down at the level of the individual and understands development as the expansion of freedom, defined as “what the person is free to do and achieve in pursuit of whatever goals or values he or she regards as important” [24]. Sen distinguishes between capabilities and functionings. Capabilities are the overall set of what individuals can achieve. From these, individuals have a choice about what they seek to achieve – these actual achievements are called “functionings,” though individuals may not choose to realise all of these in practice.

The capability approach has been widely used in development, including its application to ICT4D: the use of information and communication technologies for development [25]–[28]. A central challenge in the application of the approach is its individualisation: a true understanding of capabilities would require a definition from each person of the “goals or values he or she regards as important”. However, this has not prevented a categorisation of the typical freedoms that individuals value, and we here utilise Sen’s own five-part categorisation, drawing on the summarisation provided by Heeks (2018) [29]:

- Economic facilities: “the opportunities that individuals respectively enjoy utilising economic resources for consumption, or production, or exchange” [8]; for example, freedoms of wealth and employment.

- Political liberties: “they include the political entitlements associated with democracies in the broadest sense” [8]; for example, freedoms of democratic participation
- Social opportunities: “the arrangements that society makes for education, health care and so on, which influence the individual’s substantive freedom to live better” [8]; for example, freedoms of access to literacy, knowledge, health and computer skills.
- Informational guarantees: “the need for openness...the freedom to deal with one another under guarantees of disclosure and lucidity” [8]; for example, freedoms of access to information.
- Protective security: “a social safety net for preventing the affected population from being reduced to abject misery, and in some cases even starvation and death” [8]; for example, freedoms from penury or violence.

Putting these five categories of freedoms together with the broader ideas of capabilities and functionings, we can represent capability theory as shown in Figure 2. On this basis, “development can therefore be understood as combining three things. On a broad scale, the expansion of the contextual capabilities provides a context of opportunities. And at a narrower scale, the expansion of the specific capabilities an individual can select from, and the expansion of the realised functionings they can do or be” [29].

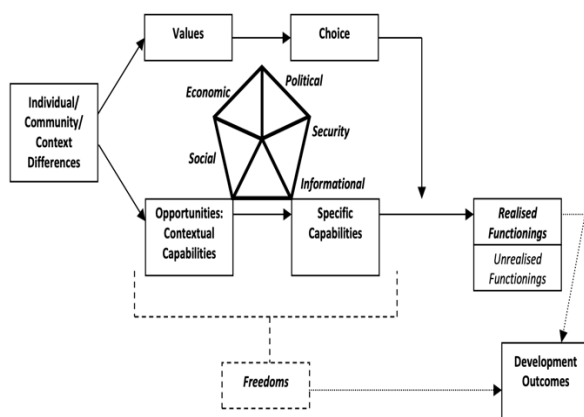


Fig. 2 The Capability Framework [29]

D. Operationalising the capability approach for gig workers

Simply having the five categories of freedoms does not provide any specific insight into gig work. To operationalise the capability approach for analysis of gig work, we therefore wanted to identify specific capabilities of relevance. This could have been done through direct interaction with gig workers, but we chose instead to develop at least the first iteration from existing literature on gig work in the global South.

1) *Economic freedoms*: Regarding economic freedom, we identified two capabilities: the ability to earn a decent income and the ability to work flexibly. A decent income – meaning the capability to meet the basic needs of life – is the essential foundation for survival but also for other freedoms including living a healthy life and participating in societal groupings [16],[17]. There are multiple reports in the

literature that this is the most important capability valued by gig workers and also a functioning achieved in some instances [16],[30],[31].

When asked what they most like about gig work, workers will typically mention the flexibility they perceive that it offers; almost always in terms of flexibility of working days and hours [32],[33]. As well as the perceived freedom from oversight – sometimes interpreted as workplace autonomy – flexibility is valued as a capability because of the additional opportunities it affords. These include the ability to undertake other paid work around which gig work can be fitted, or the ability to undertake other social responsibilities such as childcare or elder care; the latter is particularly associated with women gig workers given the additional social burden that falls upon women [34]-[37].

2) *Political freedoms*: Given the power imbalance between labour and capital, it is a fundamental right – enshrined in the UN Universal Declaration on Human Rights – that all workers should have the freedom to associate, for example, in worker associations or trade unions. For gig workers, there are barriers to the development of this capability given their fragmentation into individual relationships with the platform and the absence of a single physical workplace where they could meet [38]. However, in several locations, these barriers have been overcome, and worker associations and unions have been able to express collective concerns and to pressurise platforms or governments into making beneficial changes to pay rates or other working conditions [39]-[41]. The freedom to associate is therefore an important capability for gig workers.

3) *Social freedoms*: A social capability that appears to be at the forefront of physical gig workers’ minds is freedom from ill-health. Rather than relating to the healthcare that a gig income can provide, this seems to largely be focused on as a negative freedom: the freedom from accidents or, during the pandemic, freedom from contracting Covid during necessary interactions with customers and others [42]-[44].

A positive freedom, though one that has received less attention in the literature, is the capability of gig workers to develop skills through their work or platform. Gig workers in the global South seem to value skill development for its own sake, but particularly if it can help them to open up future job opportunities given the precarious nature of gig work [45].

4) *Informational freedoms*: Digital platforms enable the capture and processing of data and its distribution as information. Literature on the gig economy in the global South does therefore discuss informational capabilities but emphasizes the provision of information to clients that they lacked in prior markets [17], [46]. However, this is also a capability valued by workers as they wish to be informed about the identity and validity of customers, about the nature of and payment for the task to be undertaken, and about wider components of gig work such as criteria for deactivation from the platform, mechanisms for appeal against decisions, and how the algorithm allocates tasks and determines prices [16], [47]. At the micro-level, expansion of this capability enables workers to make better decisions about task selection –for example, refusing tasks that could be dangerous from untrustworthy customers or travelling to risky locations. At the wider level, being better informed is

correlated in general management literature with job satisfaction and will also link to the issue of autonomy since information can give the sense of being more in control [48], [49].

5) *Security freedoms*: Digital platforms enable the capture and processing of data and its distribution as information. Literature on the gig economy in the global South does therefore discuss informational capabilities but places an emphasis on the provision of information to clients that they lacked in prior markets [17], [47]. However, this is also a capability valued by workers as they wish to be informed about the identity and validity of customers, about the nature of and payment for the task to be undertaken.

Gig work in the global South (as in the global North) often relies on migrant workers; either internal migrants who move to cities from rural areas, or external migrants from other countries [50]. A key reason for this is that migrants are often excluded from other forms of livelihood. In rural areas or in home countries, there may be a lack of job opportunities due to either economic reasons or political insecurity, and in their new home locations, more formalised jobs may be inaccessible; sometimes because of social or citizenship status, including ethnic and religious biases [12], [51], [52]. Freedom from exclusion and the mirror-image capability of being included in a particular labour market is thus something that gig workers will likely value.

This inclusion can be terminated either temporarily or permanently through ill-health, injury or deactivation from the platform. Gig workers therefore also value the freedom provided by social protection: payments of some kind to compensate for a lack of money if workers cannot, for whatever reason, earn their typical income. Social protection is seen as playing a key role in preventing workers outside systems of formal employment from falling into penury and misery [53], [54]. The provision of this capability by platforms, governments, or worker savings or some combination of these is therefore a frequent recommendation in relation to gig work in the global South [55], [56], [57].

TABLE I
INITIAL CATEGORISATION OF CAPABILITIES OF RELEVANCE TO GIG
WORKERS IN GLOBAL SOUTH

Type of Freedom	Capabilities
Economic freedom	Ability to earn a decent income
	Flexible working
Political freedom	Freedom to associate in worker unions / associations
Social freedom	Freedom from ill-health
	Development of skills
Informational freedom	Information accessibility
Security freedom	Freedom from exclusion
	Social protection

6) *Initial Categorisation of Capabilities*: Based on the above analysis, Table 1 summarises a list of derived capabilities of relevance to physical gig workers in the global South. While other capabilities might be derived from the literature, as described next, this formed the initial template on which interviews with gig workers were based.

III. METHODOLOGY

This research adopted a case study strategy, chosen because it enables new understanding and insights into real-life contexts, such as that of the gig economy [58], [59]. The case study was the physical gig economy of India; chosen because of its significant size and growth, with one estimate of nearly 8 million physical gig workers in 2020-21 and anticipated annual employment growth of 13% during the 2020s [37], [60]. It was also selected for convenience, given widespread use of English and the author Yanaka's existing contacts within India as a result of having worked there for just over two years. Within the overall Indian gig economy, we chose to study the platforms Uber and Zomato. They were selected to represent the two main sectors of the physical gig economy: ride-hailing and delivery; as large platforms within their sectors; and because they provided examples of one local and one international platform.

A mix of primary and secondary data-gathering was undertaken. Primary data was gathered via semi-structured interviews: a technique used in research on both the capability approach and gig work [5], [61]. Semi-structured interviews allow application but also further development of a framework such as that derived in the previous section and are a valuable way to gain insight into the capability priorities and experiences of gig workers. 24 gig workers in New Delhi were interviewed in total, divided equally between Uber and Zomato, with that number selected because it is suggested that data saturation can often be achieved from a 12-person sample when drawn from a relatively homogeneous group [62].

The 24 workers were obtained from snowball sampling, starting with workers already known to the author Yanaka. While snowball sampling was adopted due to time constraints, it carries inherent limitations that participants recruited through personal networks may share similar socio-demographic characteristics and may reduce the diversity of the sample.

Secondary data was gathered from three document sources, intended to help triangulate in terms of both data and methods, with the interview data. The sources were formal reports on the gig economy such as those of the Indian government; grey literature from media outlets such as The Economic Times and Newsclick; and academic journal articles on the Indian gig economy. Document-based sources are commonly used in qualitative case studies, and help provide insights into wider influences such as, in this case, contextual shaping of gig work capabilities [59], [63].

The collated data gathered was subject to thematic analysis; again, a technique used in research on both the capability approach and gig work [41], [61]. Thematic analysis allows a flexible but systematic approach to handling data; in this case, starting with a hierarchy of the five types of freedom and eight capabilities shown in Table 1 that were used as the basis for interview design and to create an initial basis for coding the field data [64].

Following this deductive template, interviews were conducted, and initial codes were generated across the dataset before being sorted into potential themes. Themes were then reviewed and refined against the full dataset to ensure internal coherence, with the template revised where new patterns emerged.

Following analysis of data from the Zomato workers and then Uber workers, the template was revised a little with the

addition of a ninth capability: harm from occupational risks (see Table 2 below). This template was applied to analyse the document-based data, based on which it did not require further refinement.

IV. RESEARCH FINDINGS

In this section, we present the findings of the research, structured around the freedoms and capabilities derived from the literature review and then from data analysis.

A. Economic freedoms

There is no doubt that the physical gig economy is providing earning opportunities for many workers: for example, there is a claim that Uber and Ola together provided livelihoods for 2.2 million workers by 2019 [65]. What is less clear is the aggregate impact on jobs, given that many of these new livelihoods will be substitutes for existing jobs lost, such as traditional taxi drivers. At the personal level, the gig economy offers the capability of a decent income to those who might otherwise struggle to obtain this. It is, for example, seen as potentially providing this capability for those migrating from rural to urban areas for work, in view of the constraints on job opportunities in rural India and the relatively low entry barriers to physical gig work [12], [31], [66]. This was certainly a pattern among our interviewees, 60% of whom had migrated from rural areas for work.

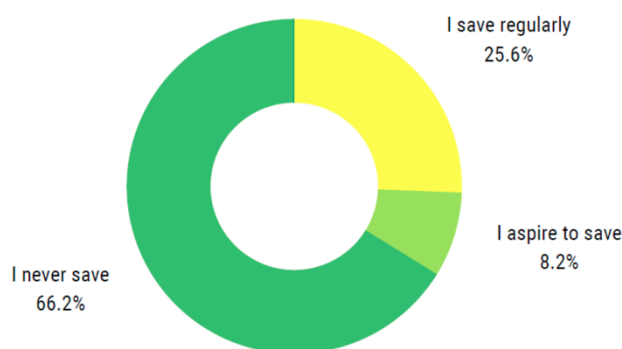


Fig. 3 Indian Gig Worker Savings [67]

The same survey reported that workers like those we interviewed who are paid by task earned on average Rs16,000 (just under US\$200) per month. This is some way below the Rs18,187 minimum wage set at the time by the Indian government for this class of workers. Given the range of earnings that lie behind the average, it is compatible with the finding from the savings figure that a proportion of gig workers are realising the capability of a decent income. But it also suggests an even greater proportion are not. Worse, some workers were losing money through their work: the large-scale survey reported this for 15% of workers [67]. While this may be a temporary phenomenon at the time of the survey, it points to a potential negative freedom, and it was also echoed to some extent by interviewees; a majority of whom reported that recent fuel price increases had reduced their earnings. This impact – to the extent of reducing net earnings to zero for some workers – was also reported more widely in India [68].

The Uber and Zomato workers did not have a formal employment contract but, instead, worked on the basis of terms and conditions that did not specify working hours. As a result, there was no fixed schedule for any of the gig workers, and they were able to avail of the capability of flexible working. Indeed, a majority of interviewees stated that they had chosen gig work in part because of this flexibility, and three of the 24 (all Zomato workers) capitalised on the flexibility by having an additional job beyond their work for the platform. As noted below and elsewhere [69], however, the ability of Indian gig workers to turn this capability into a realised functioning may be constrained by the need to earn enough money, which may require working at times when demand is high and/or working long hours.

A capability of digital gig work is its locational flexibility: so long as they have a computer and internet connection, digital gig workers can in theory work anywhere in the world and can often work at home [31]. Based on the literature review, we did not regard this as a physical gig work capability, but we nonetheless asked workers about this. Those who had been traditional taxi drivers noted that the cost of physically searching for customers had been removed thanks to the platform's affordance of automatically matching drivers and customers [70]. This did not provide a capability of locational flexibility for workers but could be seen as foundational to the capability of earning a decent income.

Overall, while gig work may expand access to livelihood opportunities, the realisation of key economic capabilities, decent income and meaningful flexibility remains uneven and context dependent.

B. Political freedoms

There is certainly a contextual capability for some physical gig workers in India to associate, given the presence of formal worker unions and looser worker associations and groups that represent both Uber and Zomato workers [71], [72], [73]. Yet the translation of this potential capability into an actual capability for all workers, and into a realised functioning, appears to be somewhat constrained, at least on the basis of our interviews. None of the interviewees was aware of the presence of a local union or association that could represent them, and hence none had sought to join such a group, nor had they sought to organise their own association. For them, then, this capability remains only hypothetical, not real.

Alongside the fragmentation and lack of physical workspace noted from the literature review, other challenges to the development of this capability emerged. One relates to the demand–supply balance in the gig labour market. The large pool of unemployment in India (estimated at 33 million people in 2023) [74], the continuous migration from rural to urban areas noted above, and relatively low barriers to entry into gig work mean there is a huge pent-up demand for gig jobs, despite all the downsides [75]. This means platforms can – and do – readily replace any staff who seek to organise, protest or in other ways complain about their working conditions [76], [77].

Second, neither Uber nor Zomato assures freedom of association; for example, by recognising and formally negotiating with a trade union [69]. Where workers have sought to circumvent this through direct action, they have

sometimes faced “threats, cash lures, penalties, and legal proceedings” against them by platforms [77]. In the place of independent unions, platforms often provide groupings, but they are controlled by the platform. In the case of Zomato, for example, workers are grouped under a team leader, one of whose intended roles is to collate worker concerns and convey them to higher management levels. Yet interviewees complained that this did not happen and that even this very watered-down, platform-controlled capability of association therefore did not function to represent workers.

Overall, the freedom for association appears to be structurally present but practically constrained, limiting its translation into a realised functioning.

C. Social freedoms

Based on the data gathered, there was little evidence that workers saw gig work as delivering a realised functioning of freedom from ill-health. Eight of the 12 Uber workers and all of the Zomato workers stated that they were working longer hours than expected to earn their income (see also [70]). One result was that they felt ill as a result of what they regarded as overwork; something reported more widely in India [78]. In part, this arose as the flip side of flexibility: the lack of assured income due to uncertain levels of demand and uncertainty of the earnings from any individual ride or delivery. It also arose from the incentive systems used by platforms, which would pay extra for workers completing a certain number of tasks during any given shift. This often led workers to keep working beyond their intended hours and into harmful overwork, particularly as some found themselves waiting a long time to undertake the number of tasks necessary to earn their bonus payment [79].

For gig workers on motorcycles, the weather – combined with the design of platform incentives and overall pay levels – also inhibits the realisation of freedom from ill-health. The majority of Zomato workers said working during rain was a cause of ill-health for them as they are quite likely to get wet through and/or more likely to have an accident. However, they are encouraged to do this as the platform provides incentive payments for work during bad weather [80]. Seven of the 12 respondents said this was enough to push them to overcome their fears of working during rain and flooding, even though they regarded the additional payment as insufficient to compensate for the additional dangers.

Overwork worries about accidents, and pressures to fulfil tasks within a certain timeframe mean that, far from helping deliver freedom from ill-health, gig work in India has been associated with negative impacts on worker mental health [81]. This is compounded by income insecurity, with workers never having any certainty of what they will earn due to the volatility of task demand and worker supply [81], [82]. Our respondents echoed this, reporting harm to their mental health as a result of uncertainty about earnings.

Overall, there is evidence that at least some workers are realising the capability of skill development. The large-scale survey of Indian physical gig workers found nearly 80% reported they had learned valuable skills through their work; particularly communication, mechanical and technical skills [67]. Our own interview results were more downbeat, with only one-third of workers reporting gains, though we asked specifically about “skill improvement through Zomato/Uber work”, which may explain the difference to some extent.

Two particular skills were identified. First, locational knowledge was improved, notwithstanding the reliance on phone-based map systems to provide journey routes. Second, five gig workers felt that their driving skills had improved. Indian cities suffer significantly from traffic congestion [83], and workers learn how to try to avoid this and to find their way as quickly as possible to their destination as a result of spending so much of their working day driving. Whether these skills would specifically be valuable for future jobs was unclear, as, indeed, it is true of the other skills that Indian gig workers are developing [67].

Overall, this study found that social freedoms are unevenly realised. There was little evidence that gig work supported freedom from ill-health, as many workers reported overwork, exposure to adverse weather, income insecurity, and negative effects on mental health. At the same time, some workers did report limited skill development, particularly in navigation and driving, although the longer-term value of these skills remains unclear.

D. Informational freedoms

The interviews corroborated findings from the literature review by showing that the sampled gig workers in New Delhi reported a partial realisation of the capability of greater information access. A majority reported they were able to access the information necessary to complete their tasks, and the six who had worked as traditional taxi drivers explained how this capability was more fully realised than it had formerly been. Previously, they would not know passenger identities, and there could readily be incomplete information about destinations and routes. The platform filled these earlier informational voids and made it easier to complete their tasks, and with greater certainty.

Workers – especially ride-hailing drivers – did feel, however, that they were not receiving complete information because they did not know, before accepting a task, how much they would earn from it, as final payment depended on factors like the route and time taken. For all workers, they would never know how much would be earned from the next task or during a particular time period. While the latter was true pre-platform for traditional taxi drivers, they often negotiated the agreed payment prior to accepting a ride.

In addition, gig work is more information-focused than alternatives because of the rating system, whereby customers rate the performance of the workers. Interviewed workers pointed out that they got to understand their performance rating, but the information lacking was an explanation behind the ratings. Three of the Uber drivers, for example, had experienced a decrease in their rating score, despite being unaware of any shortfall in the service they were delivering. Platforms also would not provide information about score reductions, so workers could not know if there was something wrong with their service or how they might improve. Nor did workers understand the algorithms that managed them; feeling they were opaque in terms of task allocation, penalties, payments and incentives [84].

Overall, this study clarifies that informational freedoms are partially realised. While workers reported improved access to task-related information compared to pre-platform work, regarding customer and journey details, important gaps remain. Workers often lacked clarity on expected earnings, rating systems, and the algorithms governing task allocation and payments. As a result, information

accessibility appears enhanced but incomplete, with limited transparency constraining its full realisation.

E. Security freedoms

The Indian labour market and wider society are quite heavily stratified, for example, along lines of class and caste [85]. The gig economy has been praised as enabling those relatively excluded from other work opportunities, such as religious minorities and other marginalised groups, to earn a living [12]. We also noted above that 60% of interviewees were from rural areas, where people are relatively excluded from livelihood opportunities, but had found work within the gig economy.

However, access to a livelihood is not quite the same as full economic and social inclusion. 60% of interviewees also reported that they had experienced some form of discrimination during their gig work. The main example they gave was rather trivial: gig workers must put a yellow number plate on their car to indicate it is a commercial vehicle [86]. Some of the Uber drivers reported experiencing people blocking their cars from using roads or from parking in places as a result. An extension of this is gig workers in India being excluded from using washrooms at restaurants or from using lifts in customer buildings [87]. Much more serious are reports of gig workers facing discrimination from customers because of their religion or caste (for example, workers with names associated with lower castes or with being a Muslim having orders turned down or being attacked) [88], [89]. It is not clear how pervasive these experiences are, but all of this suggests a number of the discriminations and exclusions from wider Indian society do bleed into the gig economy.

As noted in the literature review, the presence of social protection is very important for gig workers because of the precarity of their work. Given the relatively informal nature of gig work, social protection has not traditionally been provided in India [90]. There have been some attempts to rectify this: in 2020, the Indian Parliament passed the Code on Social Security, which sought to bring “unorganised sector” workers such as gig workers within the purview of social security [91]. However, while the Code on Social Security formally recognises gig workers and provides a framework for their inclusion in social protection, many of its provisions remain only partially implemented or weakly enforced in practice [36], [69]. In addition, sick pay lapsed as Covid faded: only 5% of workers in the large-scale India survey in 2022 [67] reported receiving sick pay, and none of our interviewees did. Where insurance schemes are present, they generally – save in some situations for accident insurance – require the worker to pay for it, and we found none of our interviewees reporting platforms helping contribute towards pensions or unemployment insurance. By and large, then, the capability of social protection was not found to be realised unless workers could themselves afford to pay for it, which almost all could not.

Freedom from violence was one of the security freedoms noted as applying to Sen’s framework, and the related but slightly broader negative freedom from harm arose out of the data-gathering in India. The drive to earn enough and – for delivery workers – to meet delivery deadlines for customers meant that drivers often had to quite literally cut corners and drive rashly. Because of this and (see above) working during bad weather, 11 interviewees – so almost half – had been

involved in a traffic accident. Despite claims of accident insurance being provided, they had to cover both the costs of vehicle repair and personal recuperation themselves.

Two of the 24 interviewees had been robbed, and a greater number had experienced verbal assaults from customers. Though not raised by our interviewees, within the wider physical gig economy in India, deaths from traffic accidents and robbery are reported [93], [94], with the former source citing a survey of delivery workers in which one-third reported having been in an accident. Concomitant to this, 83% of ride-hailing workers in India and 89% of delivery workers are reported to have security concerns about their work arising from the danger of accidents, physical assault and theft [37]. We conclude that gig work does not provide a secure working environment and freedom from violence for workers.

Overall, this study clarifies that security freedoms are only weakly realised. Although gig work may provide livelihood opportunities for some excluded groups, many workers still reported discrimination, limited social protection, and significant exposure to accidents, theft, and abuse. These findings indicate that gig work offers only limited security in practice.

F. Analysis

Looking back at the overall capability framework shown in Figure 2, we can analyse the findings further.

1) The Impact of Context on Capabilities

Contextual factors clearly matter in determining the overall set of capabilities that may be available to gig workers. Some enable the development of freedoms. The presence of platforms and platform work enables, for some, earning a decent income. The absence of formal employment contracts enables, to some extent, flexible working. The presence in some locations of gig worker unions provides potential freedom of association. The design of the app supports greater freedom of information accessibility. The (temporary) provision of sick pay and (partial) provision of accident insurance helps expand security freedom.

Other contextual factors constrain the development of freedoms. Fuel price rises have made it hard to earn a decent income. Bad weather reduces the chance of freedom from ill-health, as do the bonus payment schemes of platforms. Unemployment levels, non-recognition of unions, and threats or penalties by platforms against those who seek to protest constrain freedom of association. The nature of the employment contract constrains earning a decent living and the freedom of social protection; the latter is also being limited by the absence of enacted legislation. Freedom of access to information is constrained using non-transparent algorithmic management, and by the lack of provision of information about other management processes such as ratings. Replication of wider discriminations within the gig economy reduces the inclusionary freedoms of gig work. Absence of insurance, pension and sick pay schemes constrains the freedom of social protection.

And other factors motivate the search for freedom. Most obviously, the lack of freedom to earn a decent living in rural areas motivated some of our interviewees to look for that freedom in urban areas.

These should not just be seen as part of a fixed landscape. Some factors, embedded within the wider Indian socio-

economy, are hard to influence whether or not platforms exist, unemployment levels, fuel prices, discriminatory norms in society, and the prevalence of crime. But others are more narrowly specific, contingent and based particularly on decisions of government, and of platform owners and managers.

Taking the former, it is a positive decision of the Indian government to pass legislation on social protection for gig workers, laying the basis for the expansion of this security freedom. However, it is a less positive decision not to have yet implemented that legislation, and they could have done this. Taking the latter, there is nothing inherent or necessary to gig work about bonus payment schemes, lack of employment contracts, non-recognition of unions, punishments for protestors, formation of ersatz platform-controlled worker groups, use of opaque algorithms and other management processes, and absence of insurance and sick pay. We can evidence this lack of inherence from our literature review, from the Fairwork ratings for India [69], and from wider global evidence, for example, on cooperative ownership models for platforms and on supportive governance regimes [95], [96], [97].

All of this shows that there are successful platforms and supportive governments that do provide these things for workers. Within the Indian context examined here, it appears feasible for governments and platforms to design for freedoms: to provide the opportunity for fully capable livelihoods; in other words, to create the context in which all of the capabilities listed here are present. In doing this, they largely move gig workers towards being the equivalent of employees: it is thus rather ironic that, at least in Senian terms, those in paid employment have more freedoms than gig workers despite gig work being sold as freeing workers from the supposed constraints of conventional work [98], [99].

2) From Opportunities to Realised Functionings: Narrowing of Freedoms

Our findings point to a general narrowing of freedoms as we move from contextual capabilities (opportunities) to specific capabilities to realised functionings. Take, for example, freedom of association. There are gig economy trade unions in India: so, at a contextual level, the capability of freedom of association and representation through a trade union is present. However, at the level of specific capabilities, our interviewees were unaware of unions; some stated that unions did not operate in their locale. What had been a contextual freedom was not available at the level of individual workers. Even though workers could have created their own association or perhaps could have been more proactive in finding out about union membership, they did not do so. There may be various reasons for this, but two could be the perception of threats and penalties from the platform for organising and protesting noted above, and perceptions about trade unions in India being politicised and self-serving [100]. Workers have thus made a choice not to realise what could be a specific capability.

If gig workers are making a free choice not to realise a particular capability, that can be viewed positively as an expression of freedom. However, in several instances, the choice appears to be forced more than free. This can be read into the findings about freedom of association: it is likely that the behaviour of platforms and unions in India

significantly shapes the decision of workers to exercise potential freedom of association. This may be a ‘shaped’ rather than ‘forced’ choice in this instance, but the evidence is stronger for ‘forced choice’ in terms of the need that workers felt to try to realise the capability of earning a decent income. In doing that, they would then make the choice not to realise several other capabilities: absence of the freedom of flexible working given they would work for long hours and even over-long hours chasing bonus payments; absence of freedom from ill-health given those over-long hours and keeping working during bad weather; and absence of freedom of security given greater likelihood of accidents especially, again, when tired due to long hours or working during bad weather. But these were not free choices: workers felt that they had to make them to make enough money to live. That a number could not do this and were reporting negative income emphasises how ‘unfree’ this choice is because it is shaped by a pressure that means that several theoretically available specific capabilities are not developed, and hence that there may be more unrealised than realised functionings.

3) Decent Income Leads the Hierarchy of Freedoms

Very much following from this last point, our findings suggest that not all freedoms are weighted equally by the gig workers. Instead, there is a hierarchy, at the top of which is the capability to earn a decent income. The much-greater prioritisation of this capability compared to others is reflected in the willingness of workers, as just noted, to forego or at least constrain the realisation of several other capabilities as they chase income. We also saw it reflected in the documentary evidence we reviewed about strikes and protests of Indian gig workers: while there was a rotating set of issues that prompted such actions, one was ever-present and identified as a priority was payment [76], [77], [101]. This does therefore mean that some care needs to be taken not to read lists such as those provided in Tables 1 and 2 as flat; i.e., not to assume equal importance for each capability.

4) Transversal Impact of Capabilities

Also drawing from our findings about the relation between decent income and other capabilities is the conclusion that capabilities are not siloed but transversal, interacting with one another. To repeat the points already covered, development of a freedom to earn a decent living impacts freedoms including flexible working and freedom from ill-health. Conversely, development of other capabilities – inclusion in the gig economy, development of locational and driving skills, provision of information access – are foundational to the development of the freedom to earn an income. Gig work capabilities should thus not be understood separately but more as a web of capability relationships.

V. DISCUSSION AND CONCLUSIONS

A. Security freedoms

Our main research question was broken into three sub-questions, two of which are addressed in this section, and one in the next. We firstly asked, “What freedoms are relevant to an understanding of gig work?” Guided by a well-known categorisation by Amartya Sen, we identified eight capabilities from the literature of relevance to gig work. There was a slight modification, with the addition of one

further capability as a result of the fieldwork, leaving the overall framework of gig work freedoms and capabilities as shown in Table 2.

TABLE II
GIG WORK FREEDOMS AND CAPABILITIES

Type of Freedom	Capabilities
Economic freedom	Ability to earn a decent income
	Flexible working
Political freedom	Freedom to associate in worker unions / associations
Social freedom	Freedom from ill-health
	Development of skills
Informational freedom	Information accessibility
Security freedom	Freedom from exclusion
	Social protection
	Freedom from harm

Based on this framework, the primary and secondary field data were used to address the second sub-question, “In capability terms, what functionings are realised and not realised by gig workers?” The first overall finding was that there is no uniform answer. Some physical gig workers in India are achieving the freedoms of a decent income, collective association, good health, skill development, etc. Others are realising none of those capabilities and appear more trapped in a livelihood of unfreedoms: of debt, lack of representation, poor health, etc.

With this caveat in mind, though, we can summarise some sort of overall picture. In economic terms, many workers have the freedom to earn an income – a freedom many had struggled to find otherwise – but not a decent income, and any perceived capability of flexible working is illusory given the constraints on working time imposed by the imperative to earn. While it was not the case for those we surveyed, large numbers of Indian gig workers have the contextual opportunity to exercise freedom of association due to the presence of gig work unions. Only some choose to realise that freedom, and its value is constrained by the actions of platform managers in not recognising unions and/or in threatening those who protest.

Regarding social freedoms, workers realise the capability of skill development, though it is uncertain how portable skills may be and, hence, whether they contribute to career development. Matters look less positive in relation to freedom from ill-health, with workers citing instances of general detriments to mental health, and specific constraints from excessively long working hours or in bad weather. Informational freedoms were a similarly mixed picture, with capabilities expanded compared to traditional work in terms of customer and task information, but unfreedoms of information remaining around task earnings, management processes, and app rating and algorithms.

Finally, and covering security freedoms, we found gig work could be inclusive for those who found access to other livelihoods restricted due to caste, location, or other social exclusions. Wider discrimination does constrain inclusivity, but to what extent is not clear. Many workers seem free from the most egregious of harms, though fear of these does impact almost all. And in terms of social protection, most gig workers do not realise this capability.

In sum, while global evidence shows it is possible for gig work to help workers realise a whole raft of freedoms, this is not the case yet for the great majority of workers in India who realise few freedoms, who realise most freedoms to only a very limited extent, and who are subject to a set of unfreedoms. If we step back and look at development as freedom, within the context of this study, gig work has yet to demonstrate clear developmental outcomes in terms of delivering a swathe of freedoms. While the potential may be there and, in some instances, the opportunity is there, the actual realisation of freedoms is so far largely not.

B. Recommendations

Given this rather downbeat verdict, we turn to the third sub-question, and ask, “What kinds of initiatives and policies are needed to make the most of the gig economy in terms of capability development?”

To help expand the capability of a decent income, workers need to be paid more. Consumer and worker pressure on platforms to do this might have some effect, but this will likely be limited given the highly competitive market in which they operate. It will therefore be necessary, as has happened in some jurisdictions [102], [103], for minimum wage legislation in India to be extended to cover gig workers. There may always be a trade-off between the capabilities of income and flexibility: some platforms are addressing this by offering workers a choice of either fixed shifts with fixed earnings or more flexible working but without guaranteed earnings [97].

Although platform managers may be hard to convince into recognising unions and collective bargaining, there is some evidence that the presence of trade unions is beneficial not just for workers but also for employers [104]. It seems unions themselves could also do more in India to raise awareness among workers of their existence and of the benefits they offer, to expand the capability of freedom of association. One such benefit might be the provision of worker training to better realise the capability of skill development. Platforms, too, might be persuaded to contribute here, and one obvious area is financial literacy given that its absence constrains good financial management and that it will have a lifetime rather than merely job-specific value.

Workers who are ill or injured due to accidents or crime cannot be productive for the platform and also place a burden on public health systems. There are thus incentives for both platforms and government to take action to improve gig workers’ freedom from ill-health and harm. Emergency response systems and accident insurance are provided by several platforms in India, so there seems little reason why all of them should not do so. Provision of health insurance is much less prevalent, but some mix of government regulation, pressure and subsidy could help improve this situation. The same can also be true in relation to realising the capability of social protection, for example, with provision of pension schemes. Setting these up with optional worker contributions only seems appropriate if they have realised the capability of a decent income; otherwise, workers will tend to forego one freedom (health protection, or income in old age) in favour of another (current income). For social protection more broadly, the solution in India is quite clear: the government needs to enact the provisions of the 2020 Code on Social Security.

Expanding informational freedoms may be difficult for platforms about the certainty of task payments, as this may require a change to a different pricing model, e.g., for ride-hailing, one not based on actual distance travelled and journey time taken. However, as demonstrated by several Indian platforms [69], it is relatively easy for platforms to provide better information about rating systems, management processes and how algorithms work. This costs them little and can reduce worker complaints, concerns and stress.

In seeking to address freedom from exclusion, it will be hard to tackle wider discriminations and ostracisms of Indian society, but platforms can take a lead – as some have – in publicising and implementing anti-discrimination policies, and in refusing to comply with discriminatory requests from customers [69], [105], [106].

C. Reflection and contribution

Although based on new primary research and an original analysis of secondary data, it cannot be said that this research has offered any strikingly novel insights into the lives and livelihoods of gig workers in the global South. The broad outlines of gig work – failure of some to earn minimum wages, weakness of flexibility and collective association, risks to health and safety, patchy access to information and skill development, instances of discrimination – are very well-known by now. Hence, it is not in this that the paper can claim much contribution.

Instead, the main contribution is threefold. Using the capability approach provides a direct connection from gig work to development discourse, allowing this growing phenomenon in the global South to be better understood in developmental terms. Whether this itself is of value then depends on the extent to which development policymakers, practitioners and researchers use the capability approach to shape their thinking. For those who do, gig work can be comprehended as contributing to development in the freedoms it allows workers to have, being significantly constrained in that contribution due to the limitations on capability development and the unfreedoms identified, and offering recommendations for development policy and practice to increase the realisation of worker freedoms.

We noted earlier the free-form nature of some analyses of gig work, and the framework developed here provides a systematic way to analyse gig work, sitting alongside other frameworks such as that from Fair work [7]. As discussed below, the freedoms and capabilities framework can offer greater opportunity for local customisation by being just a starting point for investigation, rather than being a fixed and top-down approach.

Finally, as reflected in Section D6, using the capability approach does provide a new perspective on gig work. This includes understanding the role of social context and platform design in enabling or constraining outcomes; the contrast between the broad opportunities of the gig economy and the much narrower realisation of freedoms by workers whose choices are sometimes forced on them; the differential value attributed to different freedoms; and the entwined nature of gig work freedoms, with expansion or contraction of one freedom sometimes impacting several others.

D. Limitations and future research

Due to time and resource constraints, the respondent sample in this study was small, drawn from only one country, drawn from only one city, limited to only two platforms in two sectors of the Indian gig economy, and, reflecting heavy male bias in employment in those two sectors, all males. Therefore, the result of this study should be interpreted as indicative of this particular sample rather than representative of the broader gig worker population. We significantly compensated for these limitations by drawing on secondary data sources, including the survey of 500 gig workers. Nevertheless, future research can rerun this research with a larger set of interviewees, in a broader range of countries and sectors, and with a purposive sampling approach that better reflects more of the different types of gig workers.

The research could be said to violate a key intention of the capability approach, which is to be driven by what individual workers value being and doing. Instead, and again driven by time and resource constraints, we have collated evidence on worker preferences into a rather static framework that was modified relatively little because of the fieldwork. An alternative for future research could be a much more open approach that would start by talking much more generally with gig workers about what they value being and doing. This could be built inductively into a framework for the worker group covered, perhaps with some prioritisation or weighting of capabilities. Alternatively, each worker could then be interviewed in terms of the realisation of the specific capabilities that they personally valued.

We were able to talk about whether particular capabilities were being realised, but our constraints meant we could not provide a comparative or chronological account. There were a few interesting insights from those who had been previously employed as traditional taxi drivers and then moved on to ride-hailing. Future research could build on this with a before-and-after study to truly understand the transitional impact on individual worker capabilities of moving into gig work. While the most rigorous design would be longitudinal, there are practical difficulties with this, and it might instead have to rely on recollections of those who were relatively recently engaged in gig work. Such research would enable – at least for these individuals – a sense of whether gig work was expanding or contracting their freedoms.

Lastly, this represents one example of the application of a development theory to understand gig work. Future work could select other such theories – the livelihoods approach, subaltern theory, dependency theory, etc. – and use those to further understand the role of the gig economy in development.

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