Making It Work: Understanding the Gig Economy's Shortcomings and Opportunities

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Contents

Introduction

Short-term, task-based and uncontracted work is not new. However, the increase in non-standard employment in the past few decades and the more recent growth of technology-based businesses have given rise to the gig economy, [1] characterised by digital labour platforms. Accelerating activity during the Great Recession of 2008, the gig economy has penetrated almost all areas of the globe. It is estimated that digital labour platforms were worth $142 billion in 2018, growing to $311.6 billion by 2023. [2, 3]

As a result, services provided via digital labour platforms have become integral to many people's daily lives. For instance, delivery riders on scooters and bicycles are becoming a part of the urban landscape in many countries. In South-East Asia, where technological adoption is high, the platform economy is considered an engine of growth. [4] Indeed, digital labour platforms have afforded greater choices to consumers, lower costs to businesses and increased work opportunities globally.

Against the backdrop of this borderless economic opportunity, there has been a worrying trend of negative stories emerging in the media. The central tension to tackle is how to empower and protect workers while ensuring business growth and innovation. However, a variety of regulatory responses have viewed this tension as a zero-sum game, which has had mixed consequences for workers. Fresh solutions are needed to harness the developmental potential of digital labour platforms and empower and protect workers.

Key Findings

We have reviewed more than 100 reports and articles from authors across the world for this summary of the most pertinent recent research on the gig economy. The key findings emerging from the literature are:

Digital labour platforms are reshaping work in the wider economy. They act as digital intermediaries between workers, service providers and customers. Both the number and scale of digital labour platforms have increased rapidly in recent years and their contribution to the labour market continues to grow. Some evidence shows that the ethos, practices and business models typical of these platforms are filtering into the traditional economy.

Digital labour platforms do not have an equal presence across the world. While platform revenue is channelled to the Global North, labour is concentrated in the Global South. This is especially the case for web-based online platforms. As of March 2022, India supplied 25 per cent of online web-based labour,

yet in 2019–2020 represented only around 3 per cent of the global revenue from digital labour platforms.

Worker experiences on digital labour platforms are heterogeneous and can be understood through the key lenses of worker and platform characteristics, and geographical contexts.

There are currently three oversights in our understanding of what "good work" looks like. There is a growing body of literature on what constitutes "good" work for digital labour platforms, but the approaches taken in existing research do not fulfil three important criteria: covering the full employment cycle (including access to and development on the platform), contextualising global standards in different geographical contexts and taking a co-design approach that engages workers directly.

Current platform opportunities are outweighed by the challenges, although several gaps in the literature exist. Digital labour platforms can be a force for good with positive impact on workers, consumers and businesses. However, most studies find that they fall short of providing "good work". Several gaps in the literature prevent an understanding of their potential and problems, including how to increase access to platforms in the Global South, and the dynamics, perceptions and experiences of declining wages and algorithmic control in different contexts.

A range of regulatory responses have started to tackle some issues, but most proposed solutions and existing developments are focused on piecemeal change. Given the expansion of digital labour platforms, little work has yet been done to understand the radical changes they are driving at the system level, and the response that may be required. Most recommendations seek to mitigate the downsides of technology rather than harness and shape its potential to serve the public interest.

This paper is part of a larger project by the Tony Blair Institute's Digital Government Unit around workers' experiences on digital labour platforms, with further analysis and recommendations to come. Informed by these six key findings and the gaps we have identified in the existing body of research on digital labour platforms, our project will take a participatory co-design approach that engages workers directly, analyses the full employment journey, and compares the experiences of workers across four countries at different stages of economic development. The aim is to focus on policy responses that address the need for systemic change to realise the potential of digital labour platforms for workers across the globe.

The Role of Digital Labour Platforms in the Gig Economy

Defining the Gig Economy

The modern, dynamic digitalised economy has often been characterised as the "gig economy", with tasks (or "gigs") increasingly mediated online through digital labour platforms. However, there is no single, universally accepted definition of this online "gig work",[5, 6] how it differs from traditional ideas of employment or how it relates to the concept of the platform economy.

Despite this ambiguity, there is broad consensus around what this work constitutes for workers: short-term, on-demand work mediated by online platforms, with workers typically paid per task, and most workers contractually classified as self-employed or independent contractors.[7]

Some identify this aspect of the gig economy (often negatively) as part, or an extreme version, of wider trends such as the growing precarity of work associated with neoliberalism and globalisation,[8, 9, 10] or even the return of piecework.[11] Others more neutrally view it as the transition from local, full-time and permanent employment to remote, temporally flexible and casual work.[12]

While set within and drawing from existing and broader trends in the economy, digital labour platforms have unique qualities,[13] with three key aspects setting them apart from the wider economy:

1. The introduction of the "digital platform" to mediate work, which has drastically reduced transaction costs and increased the ability to scale on-demand goods, services and other commodities.

2. Algorithmic control over the approval, matching and/or management of workers, fuelled by big data.[14]

3. In large part due to the two factors above, the classification of the company as primarily offering online intermediation services rather than as part of a vertical sector, and the contractual classification of workers as self-employed or independent contractors.[15] [16]

The Role of Digital Labour Platforms

Digital labour platforms are further differentiated from the wider platform economy[17] by having labour as the key commodity rather than – for example – goods, money or entertainment.[18] Digital labour

platforms are multi-sided platforms, acting as intermediaries between the supply of and demand for labour (Figure 1). [19], [20], [21], [22]

Figure 1 – Key players in the gig economy
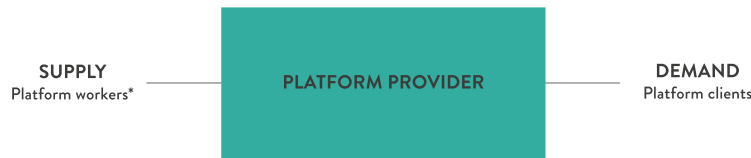
The term "worker" is used in the general sense, rather than relating to a specific legal classification.
Source: Schmidt 2017 [23]

Whereas the matching of worker to client is digital, work can be undertaken virtually or physically. [24] As a result, the gig economy can include: **online web-based tasks** (including translation, legal, financial and patent services, design, and software development), and **location-based tasks** carried out in person by workers (including taxi, delivery and home services – such as a plumber or electrician – domestic work and care provision). [25], [26], [27]

Figure 2 – A typology of digital labour platforms
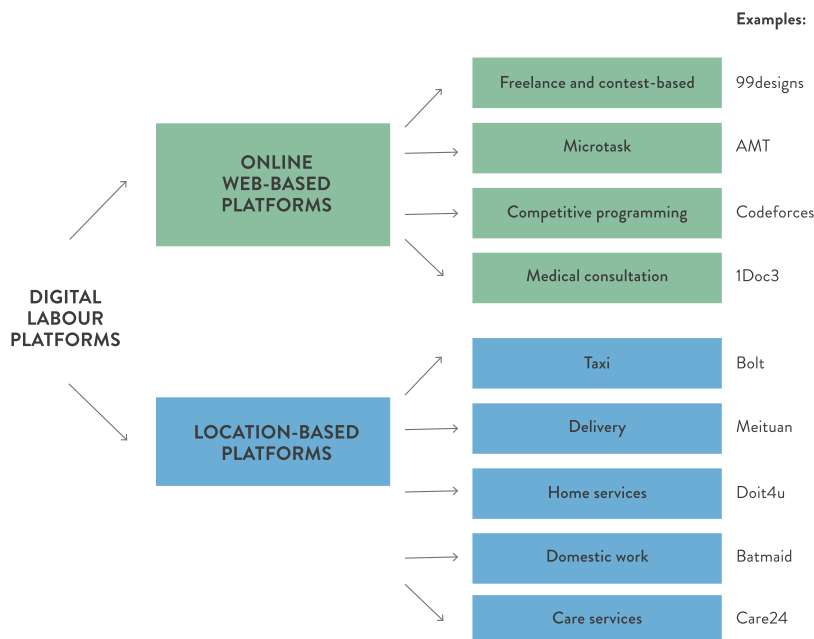
Source: ILO

The Growth of Digital Labour Platforms

Measuring the size and growth potential of digital labour platforms is important because it helps policymakers to understand their impact and the policy responses required. [28] Digital labour platforms have the potential to expand rapidly within and across countries, yet no agreement exists on how best to measure them, and existing research acknowledges that current approaches are imperfect. [29]

The number of platforms rose tenfold between 2007 and 2020, with current estimates (January 2021) putting the total number of digital labour platforms at close to 800. [30] Most efforts to understand how many people participate in the gig economy have used surveys or administrative data (such as bank, government or platform data), and most focus on the Global North.

For instance, US and EU surveys show that 16 per cent of US adults and 11 per cent of the working-age population in 14 EU states (aged between 16 and 74) [31] have earned money or provided a service via a platform, while a smaller proportion use digital labour platforms as their primary source of income (1.4 per cent for EU citizens, though the figure is higher in the Global South and on location-based platforms [32]).

Administrative data from banks and tax data from governments can also be used. For instance, several studies look at the number of active workers on platforms (usually only a limited number of platforms are selected) and divide the total by the wider working age population. Using this approach in the US led to estimates that between 0.5 per cent and 1.5 per cent of US adults are active on digital labour platforms. [33]

These approaches to measurement have limitations because the gig economy is amorphous (there are no clearly defined boundaries), varied and hidden (it is often omitted from national labour surveys). [34, 35, 36] Furthermore, there are also methodological limitations: surveys usually have a limited geographical scope, a lack of consistency on timeframes or definitions, and difficulties explaining the "gig economy" to respondents or reaching the desired audience (for instance, opt-in surveys can over-represent some groups [37, 38]). Most stand-alone surveys (such as those not included as part of national labour surveys) are conducted only once, preventing the collection of longitudinal data, although the Collaborative Economy (COLLEEM) and European Trade Union Institute (ETUI) surveys in Europe are notable exceptions. Administrative data can have problems with timeliness, relevance and accuracy, cross-country comparison, and can exclude some workers (for instance, the "unbanked", or those without bank accounts). [39]

More reliable measurements have used platform activity and revenue data to estimate the size of digital labour platforms. In contrast to survey data, which is often country- or region-specific, the following two sources enable a global mapping and longitudinal understanding of digital labour platforms in real time.

- The Online Labour Index (part of the iLabour Project at the Oxford Internet Institute [40]) tracks the number of projects and tasks across platforms in real time (Figure 3). The raw data show around a 65 per cent increase in the number of online-based tasks on the largest digital platforms between May 2016 and January 2022. [41] Extra data on dollar inflows from freelance work, specifically, show how much revenue stems from local or foreign employers.

- The International Labour Organization (ILO) has aggregated information on the revenue of platforms, sourced from the Owler database. [42]

Figure 3 – Country share of global supply of online web-based labour, 2017 and 2022
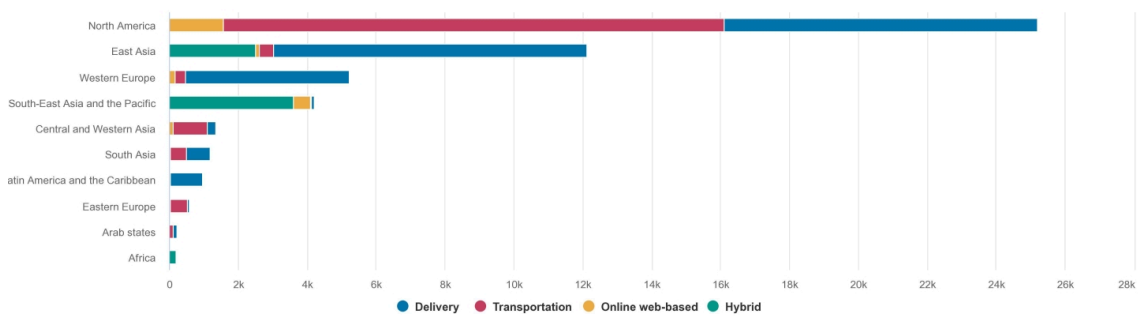
2017
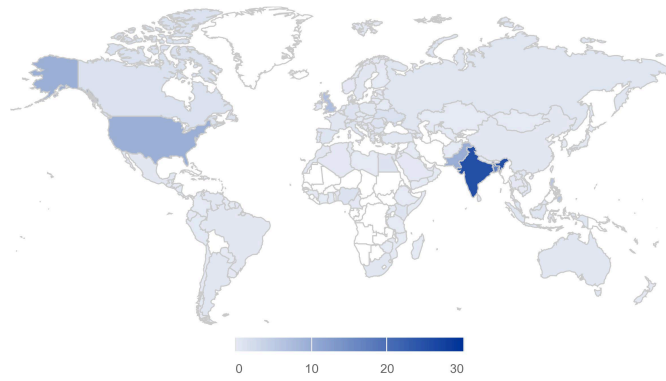
2020
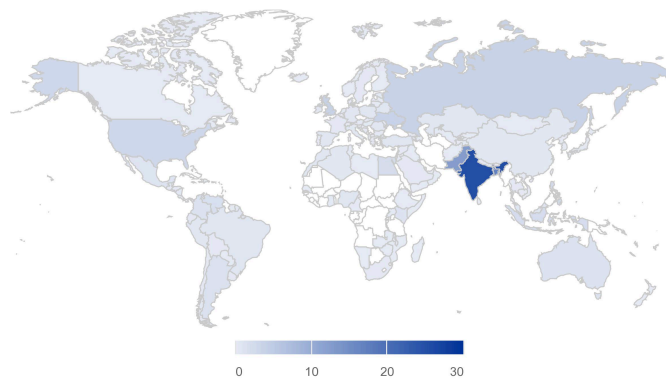
Source: Online Labour Index 2021 [43]

Figure 4 – Estimated annual global revenue of digital labour platforms, by region, 2019 (in $ millions)

Note: Platform revenue data are available for only around 31 per cent of global platform companies.

Source: ILO

Key Findings, Figures 3 and 4

- Very little of the global revenues of digital labour platforms flow to Africa. Instead, North America, Europe, and East and South-East Asia have the lion's share of platform revenue (Figure 4).

- Despite this, the global supply of online labour is centred on the Global South, specifically India, Pakistan and Bangladesh. A total of 25 per cent of this labour supply came from India alone as of March 2022. Africa and South America are the outliers, with a smaller global share of online labour (Figure 3).

- Between 2017 and 2022, the proportion of global online workers in the US has fallen from 9.5 to 2.5 per cent. Russia, Pakistan and Ukraine had the largest increases in the share of global online labour, each rising by between 2.3 and 2.9 percentage points over this period (Figure 3) – although the current war in Ukraine and the sanctioning of Russia make the figures relating to these countries largely outdated and irrelevant to how their future landscapes might look.

- From the available data, transportation and delivery platforms have the greatest financial presence worldwide, comprising 83 per cent of all platform revenue (Figure 4).

Because of the limitations we have outlined in reliably measuring the size and growth potential of digital labour platforms, debates around the future size of the global gig economy have been mostly speculative. Some argue its size is overstated and will remain limited, [44] or highlight that in practice it has only affected specific sectors such as transportation in substantive terms [45] and continues to have a limited impact more broadly. Some believe it is too early to tell, given it is a nascent area and future growth will rely on venture capital. Others believe there will be significant growth. [46, 47]

Despite this uncertainty, there are signs that platform growth is likely to be sustained. Data on platform revenue and activity show significant growth over the past decade. And some of the gig economy's largest companies have become profitable for the first time, [48] boosted by the pandemic. [49] Given this expansion, it is even more important that the impact of digital labour platforms on workers' experiences is discussed.

The growth analysed here does not factor in the influence of digital labour platforms on the broader economy [50, 51, 52, 53] ("gigification"), either through the expansion of platforms into hitherto unaffected sectors [54] or the adoption of the ethos, practices and business models of the gig economy by traditional organisations. The relationship between digital labour platforms and wider economic trends is not yet well understood and lacks quantification. [55]

Worker Experience on Digital Labour Platforms

Lenses for Analysing the Worker Experience

A consistent theme that we have identified in the literature is that variations in worker characteristics, platforms and geographies help to define and mediate the experience of work on digital labour platforms.

The plurality of workers, platforms and environments makes it difficult to generalise about the experience of workers. [56] At the policy level, blunt or sweeping changes to regulation may end up protecting certain groups while harming others. Any one of the factors discussed in this section (for instance, the differences in worker and client locations in respect of location-based and online web-based platforms) could present problems for a consistent approach to regulation. [57], [58] Regulators and legislators need to consider these lenses – that is, the specific ways in which problems can be viewed and understood – when creating policy.

Worker Characteristics

At the worker level, the heterogeneity of the platform workforce when compared to other areas of the economy is a "distinctive structural attribute". [59] In general, gig workers are more likely to be male, young and more educated than the general population, [60] particularly in the Global South. [61] Yet the composition of worker characteristics, motives and dependency on the platform for income vary across platforms and geographies, all of which are important lenses through which we can understand experiences of dependence, control or opportunity. While some primary research methods allow for an analysis of worker experiences based on characteristics, surveys rarely allow for this type of analysis because of low sample sizes at the country level.

Platform Characteristics

No two platforms are the same. Some research organisations have developed a typology for platform work. Eurofound identified ten types of work on digital labour platforms in Europe. [62] A key lens for policymakers is understanding the difference between online web-based and location-based work. [63] For instance, location-based work may be more amenable to local labour standards because workers operate in the same physical space as the consumer; online web-based work may not. [64] And while 84 per cent

of ride-hailing and 90 per cent of delivery services use platform work as their main source of income, the same is true for only one-third of workers on online web-based platforms. [65]

Worker experiences also vary depending on type, intensity and frequency of work. [66] For instance, the complexity of tasks differs greatly across online web-based platforms (see Figure 5); less complex tasks take less time, are less intense and can be more mundane, which in turn can impact upskilling and feelings of worth. [67], [68], [69]

Figure 5 – Common tasks facilitated through web-based digital labour platforms by level of complexity

	Low	Medium	High
Sign-up websites	✓		
Search and click	✓		
Bookmark webpages	✓		
Watch videos	✓		
Vote	✓		
Download and install	✓		
Post tweets	✓	✓	
Post comments on blogs/websites/forums	✓	✓	
Write a review	✓	✓	
Data entry and administrative support	✓	✓	
Translation and languages		✓	
Write an article	✓	✓	✓
Sales and marketing	✓	✓	✓
Design and multimedia	✓	✓	✓
Writing and content	✓	✓	✓

	Low	Medium	High
Product sourcing and manufacturing		✓	✓
Customer service		✓	✓
Web and software development			✓
Network and information systems			✓
Engineering and science			✓
Business, accounting, HR and legal			✓

Source: Kuek et al [70]

Different modes of operation exist, [71] especially in relation to the control of work allocation (determined by the client, the platform or the worker) and the matching process (for instance, whether jobs are provided through offer or contest). [72] Regardless of these differences, a key assumption is that the platform architecture and governance structure are controlled (and can be changed) by the platform controllers.

Geography

Geography is also important, despite some platforms being "global". While cross-country differences matter, some researchers also identify the Global North and South as a key focus of analysis. [73] The Global South provides a higher proportion of the supply of labour on web-based online platforms [74] [75] than the Global North. Workers from the Global South on digital labour platforms are also more dependent on these platforms for their income: 29 per cent of online workers in developed countries say this is their main income source, rising to 44 per cent in developing countries. [76] Geography also matters in relation to the type of work performed, with concentrations of work existing in specific areas: for example, 60 per cent of online software-development and technology workers are in Asia. [77] This can have important implications for the potential and risks of collective action and bargaining by platform workers. [78]

Understanding "Good Work" on Digital Labour Platforms

In recent years, more research has emerged detailing what "good" or "fair" work looks like. It is important to consider what "good work" looks like as the first step to understanding how reality falls short.

Some standards focus on the wider economy; [79] others centre specifically on digital labour platforms. The International Labour Organization (ILO) calls for the extension of decent work standards to platform workers, irrespective of their contractual status. [80] While it is important to consider what platform work shares with the wider debate on the future of good work, [81] work on digital labour platforms is specific enough to require the need for a more focused approach to standards. [82] Some examples of standards specific to digital labour platforms are:

- **Fairwork:** [83] This project identified two sets of principles for fair working conditions, one for online web-based platforms, and the other for location-based platforms. While the two differ in detail, they are based on the same principles around fair pay, conditions, contracts, management and representation, derived from multi-stakeholder meetings, desk-based research, and platform and worker interviews in selected countries.

- **Decent Work and the Digital Gig Economy:** [84] This paper identified a set of standards around working conditions, employment and context for online web-based work by reviewing 11 different proposals, codes and other standards. The analysis was cross-checked against recommendations derived from an extensive review of current research.

- **The Charter of Principles for Good Platform Work:** [85] This initiative by leading platform companies sets out to collectively identify and commit to key principles that, in their view, should underpin "good platform work". This is part of the World Economic Forum's (WEF) "Platform for Shaping the Future of the New Economy and Society". This standard does not separate online web-based and location-based work.

While these contributions progress our understanding of "good work" on digital labour platforms, three gaps exist. First, only Decent Digital Work and the WEF Charter include access to skills development and career progression within digital labour platforms, while the Fairwork project focuses more on in-work conditions. This matters when considering the broader work context: without a focus on progression (for instance, training) workers may find themselves stuck in chronically low-wage jobs. The Fairwork principles tackle the issues around the provision of health insurance, maternity/paternity pay, safety nets for workers who lose their income due to inability to work and more, the provision of which can fall within the (shared) responsibility of platforms. [86]

Second, many of the previous attempts to create standards for digital labour platforms have originated from trades unions, academia, think-tanks, platforms, international organisations or industry. Of the

three examples above, only the Fairwork principles are focused on gaining insights directly from workers, including from associations and multi-stakeholder groups. [87]

Third, the experience of setting standards has been concentrated in the Global North. [88] By contrast, the Fairwork project has, from the start, been grounded in the Global South. However, while it is increasing its geographical reach and using the findings to assess the efficacy of its principles, the Fairwork project has not covered all countries where digital labour platforms are prevalent. Together, these three gaps form an opportunity for further research and may challenge or expand how we perceive "good work" on digital labour platforms in different locations.

The Impact of Digital Labour Platforms on Worker Experience

The expansion of digital labour platforms has been seen to open flexible employment opportunities to many, especially in developing countries [89], [90], [91], [92] and in rural areas. [93]
However, almost all research into worker experiences identifies (and focuses on) the negative impacts for most workers, which have immediate short-term consequences for livelihoods, and longer-term impacts in relation to inequality and precarity. [94], [95], [96]

The unique elements of digital labour platforms (as outlined at the beginning of this paper) provide a framework for understanding existing research efforts into the effects of digital labour platforms on the worker experience, and where a new project can help develop new approaches. As part of the Digital Government Unit's wider project, the previous sub-sections have addressed the necessity of new frameworks and lenses to explore how we can rebalance the needs for worker protection and needs for business innovation. In the following sub-sections, we have teased out how the unique elements of digital labour platforms present new work opportunities and experiences, and any associated challenges.

1. Digitally Mediated, On-Demand Tasks

The unbundling of jobs into tasks has opened opportunities for lower-skilled workers to participate on digital labour platforms, and the digital mediation of work through platforms has enabled workers who may otherwise face discrimination and marginalisation to find work. [97]

Workers on digital labour platforms come from a variety of backgrounds. For instance, a higher proportion of workers in developing countries compared with developed ones were formerly underemployed (such as working in the informal economy) or unemployed. [98] In this instance, platforms can provide valuable earning opportunities. OECD countries have a high share of "own-account" workers (self-employed without employees), which indicates these workers were previously involved in traditional self-employment or low-quality entrepreneurship [99] rather than dependent employment. [100] Where

workers use platform work as their secondary source of income, they are already more likely to be in precarious employment. [101]

However, this unbundling of jobs has also brought challenges, including in relation to professional development – with the mismatch [102] and under-utilisation of skills, de-skilling [103] and/or de-professionalisation [104] cited as concerns for individuals on digital labour platforms. Therein also lies a trade-off for future economic growth. A series of organisational barriers (such as isolation from other workers) and inter-organisational barriers (such as lack of portable ratings) can prevent personal and professional development. [105, 106, 107] On several platforms, it was identified that workers with better ratings can access better work (for instance, in terms of the type of work, hours of work and remuneration) and thus workers' ratings are key towards determining their work experience. Most platforms do not allow workers to "bring" their ratings with them if they move on to another platform and this means that they will have to start all over again to build up their reputation.

A second prominent challenge is remuneration. For instance, as more people have joined digital labour platforms (sometimes with initial pay incentives) the supply of labour has overtaken the supply of available tasks, which in turn pushes down wages, with many earning less than the minimum wage where such a floor exists (for instance, 51 per cent of hours worked by European gig workers were paid at less than minimum wage). [108] Without adequate opportunities elsewhere in the economy, development on digital labour platforms, or the protections that exist in other forms of work, lower remuneration can create environments of overworking and impact mental and physical health. [109, 110] The increased supply of labour has also reduced the labour-market power of workers on digital labour platforms to negotiate with clients. [111, 112]

However, some gaps exist in the research. First, analysis has often focused on the experiences of workers in countries with well-developed labour-market regulations. A significantly smaller proportion of the research looks at the impact of the expansion of digital labour platforms on living standards of workers in the Global South where regulation can be sparse. Here, research highlights that workers can earn a wage two to three times higher than they would otherwise receive in another job, but the marketplace dynamics of digital labour platforms (of which an increased supply of labour is one factor) have, over time, induced precarity and worsened livelihoods. [113, 114, 115, 116]

Second, it is unclear which factor (such as the oversupply of labour) has had a more substantial impact on livelihoods, or which groups of people these factors are affecting most (such as those who use digital labour platforms as their primary or secondary source of income).

Third, several authors note that the low barriers to entry, combined with the ability to scale rapidly by reducing transaction costs for clients and workers, are a potential benefit for the Global South, even more so because platforms can be "institution-building" by formalising aspects of work, such as payment

systems. [117], [118] Despite this potential, platforms have a minimal presence in Africa and South America (Figures 3 and 4 highlight that platform revenue and the global workforce are concentrated in North America, Europe and parts of Asia). Public discourse has also focused on the negative impact that platforms have on worker experiences, but this omits an understanding of how to harness their potential. There are clear infrastructural, economic and regulatory problems that are specific to certain contexts (such as the offline community, the extent of the informal economy, and a lack of regulation around minimum wages), but research into how to promote platforms for these contexts has been limited to date. [119]

2. Use of Algorithms and Data

Algorithmic control has received a significant amount of attention in existing research as one of the most concerning elements of work on digital labour platforms.

At the heart of this is the tension between the perceptions of freedom and autonomy, which is a stated benefit of digital labour platforms, and the experience of working on these platforms, where algorithms and rating systems create dependency and control which limit workers' workplace power in respect of platforms and clients. [120], [121], [122]

Algorithms govern the access to, allocation of and performance assessment of work. At an extreme, the algorithm may determine who is deactivated from the platform, often without human intervention. [123] A key aspect of algorithmic control is the ratings system – the primary method digital labour platforms use to differentiate workers. [124], [125], [126] Platforms use a wide range of metrics when determining overall ratings, but often a key metric is client feedback.

A reliance on ratings means that outside a minority of workers with high ratings, [127] new starters or poorly rated workers risk accepting certain conditions such as working longer hours, sub-standard jobs or lower prices to improve and (re)gain their flexibility and autonomy. [128], [129], [130], [131] The literature highlights that this system has significant negative impacts on mental and physical health, worker morale and productivity. [132], [133], [134]

And while some platforms use multiple datapoints to make decisions relating to workers, the selection of these and the weighting they hold in algorithmic decision-making are opaque and changing, [135] with few options for (or knowledge of) redress. This makes it difficult for workers to understand how to improve their performance and rating, encouraging overworking and anticipatory compliance. These negative effects are greater for workers with a greater dependence on gig work for their income. [136]

While the area of algorithmic control is well-trodden, some gaps exist in understanding the impact of algorithmic control on workers' experiences. First, there is little understanding of the impact of these

control measures on the take-up of more hours and expansion of platforms (including whether the worker's motives for joining the platform have been realised). [137] This may require speaking to people who have previously been on platforms but, for whatever reason, have left.

Second, algorithmic control is not perceived equally in all areas of the world. Findings from *The TBI Globalism Study* polling, published in February 2022, highlight that people from developing countries are more likely than those in developed economies to trust artificial intelligence. [138] Exploring perceptions of digital labour platforms with regard to other job opportunities in the Global South may help to direct policymakers when considering algorithmic control.

3. Company Classification

Many digital labour platforms argue that they offer purely online intermediation services, as opposed to the underlying or integrated services (such as transport or delivery) mediated by the platform. [139, 140] As a result, they are classified as service companies offering online intermediation services, and are absolved of the traditional employer responsibility for providing benefits and social protections for workers, or the type of relationship with management seen in traditional organisations.

Without being classed as traditional employers, digital labour platforms start from the assumption that their workers are "independent contractors" with "terms of service agreements". [141, 142] The lack of legal employment status comes with significant benefits around flexibility and autonomy ingrained in the contractual relationship. [143] However, this relationship also shifts the health and financial risks from the client and platform on to the worker [144] and means that workers become responsible for their own management and development, with no entitlement to benefits, collective bargaining and labour rights. [145, 146]

And while this relationship to the worker is defended by the platforms' argument that algorithmic control of workers and the digital mediation of tasks (the "tech" aspect) are its defining features, rather than more traditional management practices, it is also these tools that have the de facto effect of decreasing autonomy and flexibility over working hours and income. [147, 148, 149]

Together, both the classification of workers as independent contractors and the technological tools of control have a severe impact on the worker experience. For instance, during the pandemic, some workers on digital labour platforms were classed as essential workers but were not entitled to be provided with personal protective equipment (PPE), although some platforms took it upon themselves to provide this. Many workers were forced to balance risking their livelihoods with risking their lives. [150, 151]

Methodological Gaps in Understanding the Worker Experience on Digital Labour Platforms

A range of methods – including desk-based research and analysis using publicly available information – has been used by research and policy organisations to understand the worker experience. Other methods include using private administrative data (such as data from the platform itself) to analyse aspects of the worker experience, usually in relation to wages. [152] The Digital Government Unit has found that three gaps exist in this overview:

1. Participants are usually active gig workers rather than individuals who may have left or never found work on platforms.

2. Research often covers one geographical region or country. Rarely is the research focused on countries across regions, which could provide a unique comparative perspective.

3. Workers' feedback has been mainly solicited through surveys, focus-group discussions, roundtables and interviews, with much of the research opting for surveys as their primary method. Some research has generated in-depth worker perspectives and stories. [153], [154], [155], [156] However, despite international bodies calling for policy experts to engage workers through participatory co-design, [157] including interactive design sessions that validate both the findings and design ideas, this approach has not been evident for the bulk of research on digital labour platforms.

As a step towards rectifying these methodological gaps, our wider project will take a participatory co-design approach that engages workers directly in several locations across different regions.

Solutions and Existing Developments

Proposed changes to address some of these issues happen at the worker, civil-society, platform, government and technological (such as the use of emerging technologies) levels. However, solutions differ in their impact and can range from piecemeal to radical change:

- **Piecemeal change** is focused on small-scale or minor adjustments, limited to specific platforms, types of work, or geographies.

- **Incremental change** is a "systems approach" [158] to change that acknowledges the interplay between key stakeholders and seeks to re-imagine how the dynamics between them can be changed for the better. However, change is carried out in a gradual way.

- **Radical change** takes the systems approach to change but looks at the roots of the problem and re-imagines progress from there.

Although the Digital Government Unit's project will consider the effectiveness of the proposed solutions and generate recommendations on what needs to change – from a human-centred perspective – in due course, at this stage it's clear that several shortcomings or oversights exist in relation to the broad focus of these solutions.

Piecemeal change may be adequate within a scenario of the limited growth of platforms, which seeks to adapt institutions to new ways of working. [159] However, very little work has been done to assess radical system change, given the increasing size of digital labour platforms and the spread of their techniques and practices in the global economy. For instance, most solutions start from the assumption that responsibility for the worker should lie with the platform. Only a few proposed solutions consider alternatives for who should be responsible for the provision of benefits (such as training) and the protection of workers' rights. [160], [161], [162]

In addition, a sizeable portion of the debate on solutions focuses on the employment relationship, and whether establishing a new definition of what it means to be a "worker" could unlock access to rights and protections. [163] Some believe new categories are required to capture the hybrid nature of platform work, [164] entailing both the flexibility of an independent contractor and elements of an employment relationship, while others have challenged the hybrid nature of platform work, [165] or believe the introduction of new categories would exacerbate an already complex system. [166] At another level, some believe this category can be uniform across countries, while others believe a one-size-fits-all approach is inappropriate. [167]

Much of the existing body of literature also assumes a functioning regulatory system, often focused on the Global North. However, a system that provides adequate protections cannot always be assumed. [168, 169] And in countries where the informal economy is prevalent, any attempt to introduce benefits and social protections for workers on digital labour platforms could make these platforms uncompetitive and unsustainable. Most solutions also seek to mitigate the downsides of technology rather than harness its potential.

Existing Developments

Unsurprisingly, many of the existing developments have been focused on piecemeal and, in some cases, incremental change, usually at the individual or civil-society level. Some positive change has occurred. For instance, court action and protest have had a knock-on effect in creating negative publicity for platforms, and *Turkopticon* – an example of workertech [170] that has allowed workers to evaluate their experience with employers since 2009 – has successfully held platforms and clients to account. Nonetheless, the impact of these changes has been limited because it has often sought to ameliorate symptoms rather than create lasting change. Many of these initiatives often lack popular awareness and support from a variety of actors in the system.

Approaches taken by government have mostly appeared in the past five years and have so far concentrated on piecemeal change, covering areas including platform growth, anti-competition, working time and remuneration, social security, occupational health and safety, dispute resolution, data and privacy, and algorithmic control.

The most high-profile and common attempts at national regulation have been to define the employment relationship. The approaches vary considerably between countries and are still at an early stage, but they fall into four overarching categories (on a scale from employed to self-employed):

1. Classifying workers as employees

2. Adopting an intermediate category

3. Creating a de facto intermediate category to obtain certain benefits

4. Keeping workers as independent contractors [171]

A few important gaps in the approaches taken by governments exist. The changes to employment relations start from the existing regulatory system and use employee status as a shortcut to unlock decent work standards. [172] In some cases, this may be the best option. Often, however, these regulations do not adequately consider workers' preferences (which can change from place to place) or the institutional and economic contexts within which these debates exist. Some of these changes have

affected platform viability [173] which, from initial reports from platforms and commentators, may have had negative effects on job opportunities and worker income. [174] And where the employment relationship has been changed, gaps exist that may still not allow workers to receive benefits or protections in work. [175], [176]

Two points are clear: first, the effect of regulation has not been sufficiently studied. Second, the existing regulatory choices are inadequate to support new models of working. Rather than jump to quick fixes, an inclusive discussion of worker protection and representation is needed. [177] This would achieve a dual purpose: empowering workers while ensuring business growth and innovation.

Examples of Existing National-Level Initiatives Around Digital Labour Platforms

- **Canada (2020):** the Ontario Labour Relations Board ruled that Foodora couriers were dependent contractors, a classification that falls between independent contractors and employees.

- **California (2020–2022):** Assembly Bill 5 created a burden on the hiring entity to establish that the worker is an independent contractor by satisfying a three-pronged test. However, Proposition 22 exempted platforms, albeit with additional worker benefits.

- **Brazil (2018):** the government made a decree that mandated the registration of platform drivers as individual micro-entrepreneurs. In return, they receive a lower tax rate of 5 per cent of the minimum wage and social protection (including in relation to sickness, maternity and disability, and a pension).

- **New York City (2021):** a minimum wage was extended to Uber and Lyft drivers.

- **Spain (2021):** new regulation (a "Riders' Law") was introduced that classified all workers on food delivery platforms as employees.

- **Ireland:** the government restricted rideshare services to licensed taxi drivers only.

- **France (2016):** the government introduced the El Khomri law which means that, under certain conditions, the platform operator must provide reimbursement for insurance against occupational accidents or illness and contribute to professional training; the law also gives workers the right to form and join a trade union.

- **Switzerland (2020):** Uber was classified as an "employer" by the courts.

- **Finland:** the Public Employment Service has integrated digital labour platforms into their digital job-market platform (Työmarkkinatori) to offer work opportunities.

- **Italy (2017):** the courts banned Uber from operating within the country, although this was later revoked.

- **Israel (2019):** the Ministry of Labour and Social Affairs offers training in digital skills to allow workers to take advantage of opportunities in the platform economy.

- **Saudi Arabia:** the government has launched their own platforms, including Bahr, an online market for professional services.

- **Kenya:** the government created a development strategy that includes harnessing the potential of crowd work.

- **India (2021)**: the new labour code will mean that gig workers will receive minimum wages across different sectors.

- **China (2021)**: the Ministry of Transport, the State Administration for Market Regulation and other government agencies published separate guidelines calling for better protection of workers on food-delivery platforms, including minimum-wage income, social security and insurance coverage.

- **Malaysia (2013):** one of the five pillars of the government's "Digital Malaysia" programme to support low-income earners to sustain a living was "micro sourcing".

- **Singapore (2021):** the government has stated that all new private-hire drivers must be aged 30 or above.

- **Indonesia (2017):** a collaboration between the government, Bank Mandiri, and GO-JEK (a ride-hailing platform) has provided workers with work injury and death benefits and simplifies the registration and the contribution collection mechanism.

- **Australia (2019):** Uber drivers have been classed as independent contractors by the Fair Work Ombudsman.

There has also been some international coordination of responses to digital labour platforms. For instance, the Fairwork project conducts reviews of working conditions on digital labour platforms in countries around the world. In 2021 alone, the project's work has been linked to 31 changes to platform policies and practices. This highlights the potential impact of transnational standard-setting and coordination.

The EU directive on platform work is due to become legislation in 2022, requiring all 27 member states to change their regulations in relation to platforms. It will introduce a two-step process for platforms to determine the employment status of workers (and the social protection and benefits that come with this status), address algorithmic management and encourage data transparency with national authorities. [178]

Next Steps for Research

Given the current state of the debate and the gaps highlighted throughout this paper, there are several avenues for future research that can add to an understanding of how workers experience work on digital labour platforms and what "good" looks like. Our project will focus on the largest gaps and starkest inequities in the digital labour platform economy:

- **Access to platforms** especially in the Global South

- **The availability of "good work"** in particular to understand recent developments putting a downward pressure on wages, and the perceptions of algorithmic control in different contexts and its impact on the worker experience

- **The adequacy and adaptability of rights, protections and benefits for modern forms of work such as digital labour platforms**, given the increasing prevalence of digital labour platforms and a lack of understanding of how this can impact "good work"

- **Avenues for career progression and development** and where the responsibility for their provision lies

Our participatory approach to the research will help to:

- Add a cross-country comparative exercise (in up to four locations)

- Expand focus to analyse the full employment journey (including access to and development on the platform) and include workers who are no longer on digital labour platforms

- Triangulate and advance our thinking on key problems and co-design possible solutions which consider different lenses of worker experience

Focusing on the existing gaps in the research can underpin a productive debate about the role and impacts of digital labour platforms on individuals, society and the economy. Our project will look to propose radical solutions that range from the individual to the system level, taking a tech-positive approach.

Charts created with Highcharts unless otherwise credited.

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