



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

'There is No Future in it'

Citation for published version:

Anwar, MA, Odeo, J & Otieno, E 2022, 'There is No Future in it': Pandemic and ride hailing hustle in Africa', *International Labour Review*. <https://doi.org/10.1111/ilr.12364>

Digital Object Identifier (DOI):

[10.1111/ilr.12364](https://doi.org/10.1111/ilr.12364)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

International Labour Review

Publisher Rights Statement:

This is the peer reviewed version of the following article: Anwar, M.A., Odeo, J.O. and Otieno, E. (2022), 'There is No Future in it': Pandemic and Ride Hailing Hustle in Africa. *International Labour Review*. Accepted Author Manuscript. <https://doi.org/10.1111/ilr.12364>, which has been published in final form at <https://doi.org/10.1111/ilr.12364>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions. This article may not be enhanced, enriched or otherwise transformed into a derivative work, without express permission from Wiley or by statutory rights under applicable legislation. Copyright notices must not be removed, obscured or modified. The article must be linked to Wiley's version of record on Wiley Online Library and any embedding, framing or otherwise making available the article or pages thereof by third parties from platforms, services and websites other than Wiley Online Library must be prohibited.

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.





THE UNIVERSITY
of EDINBURGH

‘THERE IS NO FUTURE IN IT’

PANDEMIC AND RIDE HAILING HUSTLE IN AFRICA

MOHAMMAD AMIR ANWAR^{1,2,3}

JACK ODEO⁴

ELLY OTIENO

¹Centre of African Studies, University of Edinburgh

²Oxford Internet Institute, University of Oxford

³School of Tourism and Hospitality, University of Johannesburg

⁴Jomo Kenyatta University of Agriculture and Technology, Nairobi

Email: mohammad.anwar@ed.ac.uk

Pre-Publication Version

Suggested Citation:

Anwar, M. A., Odeo, J. and Otieno, E. (Forthcoming, 2022) ‘There is No Future in it’: Pandemic and Ride Hailing Hustle in Africa. *International Labour Review*.

Abstract

This article examines the impact of the COVID-19 pandemic on ride-hailing drivers in Africa. It argues that though ride-hailing offers paid-work to some African workers, the commodified and informalised nature of this work results in poor job quality. The effects of which are greatly amplified during the pandemic. Drawing on a mixed methods approach: in-depth interviews with ride-hailing drivers in Nairobi and digital ethnography, it also provides a narrative of ‘hustle’ to outline strategies of resilience, reworking, and resistance among informal workers. It concludes by highlighting the need for adequate regulatory frameworks and on-the-ground solidarity networks to ensure decent working conditions and to push back against precarity in the gig economy.

Key Words: *Gig Economy, Platforms, Ride Hailing, Uber, Pandemic, Covid-19, Precarity, Hustling.*

1. Introduction

Before the lockdown, I was primarily a driver on Uber because I wanted to raise money to do something else on the side. And then, the pandemic came. It ruined all those plans. It is very risky. You carry a lot of people. You touch a lot of money, and it is very easy to catch the virus. I have my mom, my sister and my brother. I do not want to go, risk catching the virus and then bring it to them. So, I have not been going to work as much (Interview Njenga, Nairobi, May 2020).

The whole day you are online, but you cannot even find a single ride. Previously, I used to go for about 14 to 15 trips a day. Now, I end up doing three a day. (Interview Okumu, Nairobi, May 2020).

Both these testimonies come from ride-hailing drivers in Nairobi during the early stages of the COVID-19 pandemic in 2020. They describe the potent threat the pandemic presents to the lives of gig workers, who get employed informally and struggle to survive. From Cairo to Cape Town and Seattle to New Delhi, platforms such as Uber and Bolt are connecting drivers with customers for taxi rides. This is commonly referred to as ‘ride-hailing’. Ride-hailing has emerged on the continent as part of the growing gig economy (citation hidden). For the African continent, this work has developmental implications.

An estimated 85.8% of the employment in Africa is in the informal sector, the highest in the world (ILO 2018). Informal workers (e.g., waste collectors, domestic help, artisans, street vendors) already exist in precarious conditions (i.e., underpaid and unpaid work, lack of social protection, and poor occupational and health standards at workplaces) (Webster, Joynt and Sefalafala 2016). The pandemic has made their situation worse (Otieno et al. 2020; ILO 2020a). Many of these workers subsist on daily income and just cannot work from home. Hence, they face an unimaginable choice between hunger and infection during the pandemic, as demonstrated by Njenga and Okumu above. There have been concerted efforts by the governments in Africa to extend new emergency measures to mitigate the loss of livelihoods during the pandemic.¹ However, many (e.g., migrants, refugees, ride hailing drivers) remained outside the ambits of these measures. Yet, workers have developed unique set of strategies to mitigate the loss of livelihoods. Therefore, this article sets out to examine the livelihood implications of the pandemic-induced lockdown on ride-hailing drivers [henceforth drivers] in Kenya, one of the biggest markets in Africa in terms of the number of registered drivers and their daily struggle to survive the pandemic.

¹ The International Monetary Fund has a Policy Tracker, which collects governments’ efforts to limit the human and economic impact of the COVID-19 pandemic. See <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>.

The article argues that though gig economy offers paid-work opportunities to many of the African workforce, the commodified and informalised nature of this work results in poor job quality.² We show the pandemic has made drivers' working conditions even worse. We also briefly discuss drivers' mitigation strategies which we label as 'hustling'. Hustling is a lexicon within the Silicon Valley circles with gig economy platforms seen as enabler of a work culture where people combine more two or more jobs to generate extra income (see Ravenelle 2019). Yet, we show that hustling can also be understood as a form of labour agency among ride-hailing drivers with its unique practices of resilience, reworking and resistance. We conclude by arguing that there is an urgent need to not only develop adequate regulatory frameworks but also to complement these with local and on-the-ground solidarity networks among gig workers in Africa to push back against precarity in the gig economy. The article draws on a mixed methods approach: in-depth interviews and digital ethnography with fieldwork conducted between April 2020 and February 2021 in Nairobi, Kenya.

2. The gig economy, hustle culture and development paradox

There now exists a wide variety of platforms engaged in different types of economic practices, from extracting data (e.g., Google and Facebook are considered data platforms (Srnicek 2016)) to transactions of work (e.g., Uber and Upwork are considered digital labour platforms (citation hidden)).³ The activities enabled by digital labour platforms [henceforth platforms] are commonly referred to as 'the gig economy' and can be characterised into two types of work: 'remote work' and 'geographically tethered work' (citation hidden). Remote work is understood to be digitally-intensive and can be performed irrespective of the location of the workers, as long as they have access to digital infrastructure (computers and internet

² A number of studies from around world have confirmed poor job quality inherent in the global gig economy (e.g. ILO, 2021, Huws et al., 2016; Graham et al., 2017; Citation hidden)

³ Digital labour platforms are also implicated in data extraction (see van Doorn and Badger, 2020).

connection). Key examples include transcription, translation, image tagging, search engine optimisation, and software development. Geographically-tethered work, on the other hand, is not digitally intensive but can be digitally mediated and has to be performed in certain locations. Some examples would be care work, food delivery, and ride-hailing, all of which are mediated via platforms.

Platforms are seen enablers of a ‘hustling’ (people engaging in two or more jobs to earn extra income), synonymous with the Silicon Valley (citation hidden; Ens and Márton, 2021). There is existing literature that has shown gig workers’ hustle (doing multiple gigs) on platforms to supplement their income (citation hidden; Ravenelle, 2019). Hustling is also presented with positive connotations such as ‘be your own boss’ (on a critique of this thesis, see Ravenelle, 2019). No wonder the gig economy is touted for its development potential because it provides income earning opportunities and flexible working conditions (see Uber 2020b; Upwork 2015; Kuek et al. 2015; Rockefeller Foundation 2014).

However, hustling is also understood a condition of insecurity and uncertainty among people (Honwana, 2012) and a form of practice by those individuals to overcome their precarious existence (Vigh, 2006). In describing, the experiences of youth in Nairobi slums, Thieme (2018: 531) argues hustling encompasses “*an assemblage of everyday struggles, dealings, and opportunistic practices in the absence of formal institutional support of any kind.*” For Thieme, hustling is a way people navigate economic insecurities and uncertainties that transcend geographies. In other words, hustle is also about short-term gains for daily survival, to get by, and to have food on the table, particularly in some of the most marginalised locations.

For gig workers this is a lived reality which several studies have already highlighted (see, in high income country contexts such as the United Kingdom, Cant 2019, the United States, Ravenelle 2019; Rosenblat 2018; Australia Goods et al. 2019; in low- and middle-income

country contexts e.g. Brazil, Amorim and Moda 2020; India, Samuel 2020; also see ILO 2021a; Berg et al., 2018; Rani and Furrer 2020). There are several reasons for that.

The gig economy activities are defined by short-term gigs/tasks with workers constantly hustling to find new gigs on platforms (citation hidden). In that sense, the gig economy is hardly a new phenomenon, and it has been existence for centuries, especially in Africa. Musicians, cobblers, artisans, street vendors work is based on short-term tasks usually paid on piecemeal rates. This is an everyday reality for over 60 % of the world's workforce which exist in the informal economy characterised by poor working conditions where workers rarely have their rights protected (ILO 2018). However, the gig economy transacted via platforms is somewhat unique in a sense that it exists somewhere between formal and informal sectors (citation hidden).⁴

The gig economy platforms can formalise employment relations in some cases (Pollio, 2019). In the case of ride-hailing, workers have to undergo a number of formal processes before onboarding on platforms (e.g. uploading driving licence, identity documents, financing the car). Some countries have enshrined laws for drivers to pay taxes (e.g. Kenyan Digital Tax) (Odhiambo, 2021). There is an existence of contract as well between drivers and platforms which formalises the employment relationship between drivers and platforms (in the form of service-level agreement). But instead of recognising drivers as employees, platforms label them as independent contractors. As a result, workers get informally employed and face poor working conditions (ILO, 2021a).

Another important aspect of ride-hailing is that platforms like Uber exercise power over economic transactions via the design and governance infrastructure (e.g. rating system, algorithmic surveillance, allocation of tasks, price control, etc.) which ultimately limits

⁴ It is well-acknowledged that work in the informal sector rarely comes with benefits such as pay protection, pensions, insurance, etc. (ILO, 2018). However, boundaries between informal and formal sector are blurred and even in formal sectors working conditions can be precarious (see Meagher 2016; Chen and Carré 2020).

workers' agency (see Vallas and Schor 2020). While platforms cede control over some aspects of the labour process (e.g. ability to log in or log out of the platform), the deployment of algorithmic management to control prices, allocation of rides, and rating system is shown to increase work intensity, long working hours, and social isolation among workers (citation hidden; Gandini, 2019).

It is, therefore, somewhat ironic that the gig economy is seen by many to expand non-standard employment relations in the high-income countries of the world (e.g. Huws et al. 2016), yet for low- and middle-income countries, including African countries it is considered to have great economic development potential with poverty reduction impacts (see World Bank 2016). However, latest studies on the gig economy in Africa suggest otherwise. For example, authors' (citation hidden) multi-country and multi-year study in Africa show that the gig economy is the latest manifestation of the neoliberal globalisation and under the garb of 'freedom and flexibility', it brings 'precarity and vulnerability' into the lives of African workers (citation hidden). Yet, existing research also shows that workers develop and exert their agency showing the limitations of algorithmic management by platforms (see Woodcock, 2021). In this paper, we engage with these gig economy-development debates by focussing on ride-hailing which has emerged as one of the fast growing paid-work opportunity for many in Africa and highlights their hustles to survive the pandemic.

2.1. Ride-Hailing in Africa

There are an estimated 81 ride-hailing platforms on the continent (Insight2Impact n.d). Figures from 2018 suggest 216,000 workers in the ride-hailing sector in just seven Africa countries (Insight2Impact 2018). Though several local platforms have emerged (e.g., Oga Taxi in Nigeria, Little Cab and Hava in Kenya, and Hailer in South Africa), international platforms such as Uber and Bolt dominate the market share in Africa. Uber currently operates in 24 cities

across nine countries, while Bolt has operations in 64 cities across the continent.⁵ In Kenya, there are approximately 5,000 active Uber drivers (Macharia 2017). Though, the number of people working in the sector could be higher. The car ownership is low in most African countries and drivers often rent and/or share a car between two people. Platforms also allow sharing of the car through driver-partner model. The growth of ride-hailing platforms in Africa is significant for a number of reasons.

Most workers in Africa are often absorbed in the informal sectors, despite precarious nature of work (ILO, 2018). In the Kenyan context, the formal sector jobs have slowed down in recent years and over 83.8 percent of the employment is in the informal sector (Kenya National Bureau of Statistics 2019). Ride-hailing (like many other forms of digital gig economy) is, therefore, seen as an employment fix for joblessness and informality on the continent (see Kuek et al., 2015; Rockefeller Foundation 2014).

The co-founder of Lynk (a Kenya-based platform), Adam Grunewald has gone on to say that ‘the potential for gig platforms to provide a source of consistent work and centralised governance and support is even more exciting in Africa where platforms can leapfrog informal economies’ (Grunewald 2019). With public transport almost non-existent, unregulated transport services in cities are the lifeline in Africa. In Kenya, ‘*matatus*’ (mini vans), along with ‘boda-boda’ (motorcycle taxis) are the preferred mode of travel for the growing urban population. Ride-hailing platforms have emerged alongside these transport services in Kenya and other countries on the continent too, to enhance urban mobility (Giddy 2019). Many African governments have also welcomed the proliferation of the ride-hailing platforms in their countries to address the public transport issue in their major cities (see Muriuki 2020; Intelligent Transport 2018).

⁵ Globally, Uber, currently operates in 69 countries (that is within 11 years since it was first launched) (Uber 2020a). It has 26,900 employees and has 5 million registered drivers globally, who either own or lease/rent cars, with the majority of them being labelled as self-employed or “driver-partners” (Uber 2020a and 2020c).

Ride-hailing also offers opportunity for some to earn a livelihood. However, existing research on ride-hailing in Africa shows that job quality in this sector is questionable. For example, Carmody and Fortuin (2019: 197) in their research of Uber drivers in South Africa show that workers rarely enjoy control over wages, working hours or have social protection measures. In another study with Uber drivers in Nigeria, Meagher's (2018: 11) argues that platforms overstate their potential for quality job creation, as well as contributing minimally to improving urban transport. Put simply, the growth of gig economy is likely to entrench informalisation in the labour markets in Africa and in the context of the pandemic, this is a disturbing trend.

The COVID-19 pandemic has adversely affected livelihoods of millions around the world, especially in poorer parts of the world (e.g., Kesar et al., 2021; Chen, 2020). The International Labour Organisation (ILO) (2020a) estimates that the livelihoods of about 1.6 billion workers globally (mostly in the informal sector) are at risk and many will fall into poverty in the coming years (ILO 2021b). TradeMark East Africa's report on the effects of COVID-19 on women cross-border traders in East Africa found that their business operations have reduced and profits have declined (TradeMark East Africa 2021). Similarly, in ride-hailing, the threat of the loss of lives and livelihoods are real for drivers who simply cannot work from home are rarely covered by emergency social protection policies (ILO, 2021; Otieno et al., 2020; citation hidden). The article, therefore, extends this emerging literature by not only bringing the African perspective to this debate but also presents one of the early empirical accounts of the pandemic's impact on gig workers and their unique mitigation strategies to survive during the pandemic. We now discuss methodology.

3. Methodology

The study is based on a mixed methods approach. We conducted two rounds of in-depth interviews with ride-hailing drivers in Nairobi, Kenya. The first round of interviews was conducted between April and June 2020 and the second round was conducted between January-February 2021. Our sample of drivers used multiple platforms with Uber as the main platform, along with Bolt and several local platforms such as Little Cab and Hava.⁶ All drivers we interviewed were based in Nairobi. Most drivers were internal migrants from counties such as Siaya, Nakuru, and Nyeri. A total of 42 interviews with 32 participants were conducted. The interviews lasted between 25 mins to 123 mins.

Interviews in the first round were conducted over the telephone due to social distancing measures. Interviewing on the telephone is a known research method with various opportunities (flexibility and access) and also challenges (quality of the voice call and not being able to understand the nuances, gestures, and emotions) (Block and Erskine 2012). During the second round, face-to-face interviews were possible since the lockdown measures had been lifted and the Kenyan authorities allowed some in-person activities to go on with caution. Hence, the Covid-19 protocols were strictly observed including having both the interviewer and respondents wearing masks throughout the interviews, maintaining social distance, regularly sanitising hands and research tools like the audio recorder, and carrying out the interviews in open spaces with free circulation of air.

Interviews followed an evolving script of core questions concerning their daily work routine, maintaining work life balance, livelihoods during the pandemic, their opinions on platforms and governments' measure to help drivers, driver mobilisation, and mitigation strategies they deploy to survive, and their use of digital communication channels (e.g. WhatsApp and Facebook). The idea was to engage in rich conversations and offer avenues for

⁶ We acknowledge that business models might be different across platforms and future research would benefit from comparative analysis of worker experience say on domestic vs international platforms.

questions from respondents. Some respondents were interviewed several times primarily due to time constraints. Conducting multiple rounds of interviews also afforded the opportunity to discuss new developments (e.g., relaxation of working hours; new initiatives from platforms). To better facilitate this process, drivers were kept in constant touch by the authors via WhatsApp. We exchanged regular messages with drivers, and they would share the news of what is happening in the sector and in their lives. This allowed us to build a comprehensive picture on how the pandemic is impacting drivers.

We also combined interviews with a novel approach of digital ethnography, i.e., understanding data as objects of ethnographic inquiry (Shankar 2018). It involved collecting workers' communications on digital communication channels. Workers' use of WhatsApp and Facebook has emerged as an important tool for workers to mitigate adverse working conditions found in the gig economy (citation hidden; Gray and Suri 2019). Drivers use of WhatsApp to regularly communicate with each other is well-known (citation hidden). There are hundreds of WhatsApp groups among drivers in Africa. Getting access to these groups for Nairobi-based drivers proved difficult. So, in our interviews we asked drivers to tell us about their use of WhatsApp and its importance for their work. We then complemented this discussion by studying drivers' interaction on Facebook groups to understand the nature of communication in these groups.

There are possibly dozens of Facebook groups of ride-hailing drivers in Kenya. We joined two of the biggest Facebook groups for Kenyan drivers in terms of members. These groups present a moral and ethical challenge as obtaining consent of every participant in a private group with thousands of members is practically not feasible. However, Barbosa and Milan (2019) have argued a better approach is to gain consent through an ongoing negotiation and exchange, transparency, and full anonymisation. Practically, this means that informing the group regularly in the form of reminder and reiterating privacy attributes. The group admins

were informed about the study and a message was posted on two of these groups about the nature of the study. Thereafter, regular messages were posted on these groups to let the members know about the aims of the study and data collection process.

We collected Facebook posts manually from the time period between the months of January-February 2021. The posts were extracted on a daily basis and exported to an Excel sheet. All identifying information such as the names of the persons were removed to completely anonymise the data before coding began. In all, we collected 1,797 posts. We openly coded these posts to identify a range of categories emerging in the conversations and then later grouped together to highlight the key themes of communications between drivers. No posts or its contents are quoted in the article for privacy reasons. All drivers' names are anonymised. Before we turn to the impacts of the lockdown on drivers in Kenya, we outline gender dynamics inherent in livelihoods generated via ride-hailing.

4. Livelihoods and gender dynamics

For a large segment of the unemployed workforce and those in '*juakali*' activities, ride-hailing offers an additional source of income.⁷ A survey conducted by the ILO (2021a), found that globally over 40 percent of drivers are motivated by lack of jobs locally and additional income. For Kenya, the corresponding figure is over 60% and in Ghana it is 45%. However, ride-hailing also offers extremely low hourly rates (ILO, 2021a) which in some cases can be lower than the ongoing rates for the meter taxis (a point made by some of our respondents).⁸ Though, there are gender dynamics involved.

⁷ '*Juakali*' is a Kiswahili term which translates as 'fierce sun', often referring to the small enterprises, small-scale traders, craftspeople, artisans, and their activities which are carried along the side of the streets, out under the sun, and little to no workspace. The term has also become synonymous with the informal sector in Kenya (see Kinyanjui, 2014).

⁸ The ILO's survey found ride-hailing drivers earning marginally higher hourly earnings than meter taxi drivers.

Ride-hailing is male dominated (ILO 2021a). In Kenya, only five percent of the workforce in ride-hailing is female, which is higher than India, Ghana and Morocco, but lower than Indonesia and Chile (see ILO, 2021a). There are female only platforms in Nairobi like An-Nisa Taxi and Dada Ride.⁹ We managed to interview eight female drivers. The experiences of female drivers are somewhat different from that of male drivers.

Most of our female respondents noted platforms as their principal source of income, in comparison to male drivers most of whom have either a side business or were in regular jobs. Achieng, who is a single mother of three children started using Uber in 2016 because she did not have regular stream of income and needed money to feed her kids. She now generates most of her household income through the platform (Interview Nairobi, January 2021). A few female drivers also complemented their earnings with other forms of entrepreneurial activities such as catering, street vending, corner shops, and tour guides. But female drivers face a number of other issues.

Female drivers are particularly at a high risk of carjacking. Janerose is in her mid 30s and is a mother of two. She has been in ride-hailing since 2017. She says *“working at night is a risk both for our safety and for customers. Some male customers are wary of riding with lady drivers at night because they feel female-driven cars can be easily attacked”* (Interview Nairobi, January 2021). Gender-based discrimination from customers is also an issue. Most of the female drivers we interviewed reported that customers equate male drivers to be better at driving than females and would cancel the trips after request when they see a female driver. One driver, Ciku, alleged that this happens mostly when the customer is a female (Interview Nairobi, February 2021). While ride-hailing may offer economic opportunities for the country’s workforce, the sector’s income generating potential is questionable.

⁹ There are ride-hailing platforms elsewhere in the world which are women only or designed for women users and drivers, such as Local (South Africa), Fyonka (Egypt), Taxshe (India), Chariot for Women and GoSafr (US), Shebah (Australia), and Uber has a “Women Rider Preference” Feature in Saudi Arabia and Brazil.

Uber, in 2016, was the only ride-hailing app in the country. The fare at that time was about KSh 65 (US\$ 0.45) per kilometre and KSh 5 (US\$ 0.05) per minute waiting. Since, then many other platforms have entered the market (e.g., Bolt, Little Cab, PTG, In Driver, Hava, Safeways and Maramoja), which means increased competition. Platforms are engaged in price wars. This is good news from the customer point of view, who get cheaper rides. But for drivers, this is disappointing. This is according to Wambui, a single mother of two children who has been on and off the online taxi-hailing platforms since 2017. She is a trained marketer and was pursuing studies in insurance but could not complete it for financial reasons. Describing the changes in the sector, she says, *“in 2017 business was good... then in 2019 we got a lot of cars...and many app companies came to Kenya...trying to lure drivers to join their platforms. So, they decided to lower the prices”* (Interview Nairobi, January 2021). The result of which is low income for drivers. Another driver, Kioko who has been in ride hailing for three years, agrees that there are *‘too many platforms and too many drivers’* creating an unhealthy competition. He says, *“because the industry is not regulated, platforms unanimously decide the fares”* (Interview Nairobi, January 2021). Yet, the commission rates have remained the same, ranging from 20 to 25% depending upon the platform. At the time of writing in March 2021, Uber’s fare in Nairobi was KSh 22 (US\$ 0.20) per kilometre and KSh 4 (US\$ 0.03) per minute waiting. In a survey done by the ILO (2021a), the Kenyan drivers were earning US\$ 2 per hour (drivers in Ghana and Morocco earn higher), which is slightly above the national minimum wage for car drivers. But ride-hailing is known for long working hours and high work intensity (ibid). In essence, the income earning potential is constrained for many Kenyan workers and the onset of the pandemic greatly amplified their economic insecurities.

5. Pandemic and the risks

Income insecurities

The Kenyan government introduced first nationwide lockdown on 25 March 2020. Most economic activities were ordered to close and only essential services (e.g., healthcare, pharmacies, food markets, public transport) were allowed to function, but under restricted working hours.¹⁰ Drivers were allowed to work during the lockdown. But they were getting few trip requests. The taxi business thrives on the movement of people, especially those commuting to work, domestic and international travellers, people attending ceremonies, and leisure areas in the evenings or over the weekend. But with the lockdown, these activities stopped.

A few studies have highlighted the decline in number of trips during the pandemic among drivers in South Africa as well (ILO, 2021a; Otieno, et al., 2020). Understandably, similar concerns were raised by the drivers we interviewed in Nairobi. On average, our sample of drivers were doing 80 trips per week before the pandemic. But during the lockdown they were averaging about 15 trips a week. Another female driver, Ciku, who is in her late 30s and has been driving since 2019, told us that during April-June 2020, she was getting just one trip request in a day, and sometimes none (Interview Nairobi, February 2021). As a result, drivers reported sharp declines in their earnings, though this remained varied based on the type of drivers.

Drivers and partner-drivers

There are two types of drivers on ride-hailing platforms: partner-drivers and rental drivers. Partner-drivers are those that create and register an account on platforms. These are car owners. Most Kenyan drivers rent a car from these owners. They pay the partners an agreed amount per week or month. We found that they pay on an average about KSh 9,000 (US\$ 82) per week,

¹⁰ Some of the restrictions were lifted by 7th July 2020. Phased re-opening of schools began in September 2020.

among the sample respondents. This category of drivers seems to have been affected more than the partner-drivers, because they lost access to cars.

Some car owners withdrew cars leaving rental drivers without the means of production. During the lockdown car owners, who were already working in other forms of employment, lost their jobs. So, they turned towards ride hailing themselves. A point confirmed by Achieng who was renting a car since 2019 at the rate of KSh 1,000 (US\$ 9.1) per day. She told us, *“around May 2020, my partner lost his regular job. So, he decided to take back his car. I was left without a car which means no income until January 2021 when I managed to rent another car”* (Interview Nairobi, January 2021). In other cases, owners took the cars back because several rental drivers were unable to pay weekly rents. Karis, a 37-year-old university graduate and married with three children, has been driving on Uber since 2019. During the lockdown, his partner withdrew the car he was renting. He said:

One month after Covid-19 broke out, I was unable to pay for the car. I was not making enough to pay him. Then, I have the cost for fuel and save something for myself. You need to eat. You have a family, other responsibilities, and yet the partner is still asking for money. So, he took the car from me. (Interview Nairobi, January 2021).

One driver told us that before the pandemic he was able to earn between KSh 15,000 (US\$ 141) to KSh 18,000 (US\$ 167) per week. His rental was KSh 10,000 (US\$ 94) per week. But after the pandemic-induced lockdown, he was struggling make KSh 1,000 (US\$ 9) per day. This point was acknowledged by most drivers, with one driver, Mwangi, saying, *“We no longer make as much money as before the pandemic”* (Interview Nairobi, January 2021).

One of the biggest impacts of the pandemic and the resulting lockdown has been on those who had taken loans from the banks to buy new cars to drive on platforms. Uber, along with other major platforms have developed partnerships with banks to offer loans to drivers who want to join ride-hailing (Uber n.d.; Finextra 2016). While it has allowed drivers to get access to cars, several observers have voiced concerns about these plans as this can generate indebtedness among the poor (see Dubal 2019; Sperber 2020). Competition in the market with more platforms and more drivers meant drivers were earning less and could not afford to pay back.¹¹ There are already reports of cars being dispossessed in 2018 in Nairobi (Muchira 2019). During the pandemic the earnings literally disappeared, and drivers were facing possible dispossession of their cars, a point confirmed by several drivers who had financed their cars using this scheme.

Take for example, Gladys who is a single mother of one and also takes care of her older parents. She fell behind on her loan payments, so the bank increased her monthly repayments.¹² She is juggling various side jobs (farming and guided tours) to service the debt (Interview Nairobi, January 2021). She worryingly said, *“I am behind on my loan repayments and it is becoming a big burden for me. I fear the bank will repossess my car if I miss my payments”* (Interview Nairobi, January 2021). Not only drivers were facing diminishing economic returns, but they also face health risks too.

Risk of infection

Owing to the nature of the work, drivers are at the frontline, interacting with a different people every day, which puts them at higher risk than others who can work from home (Otieno

¹¹ One of Uber’s ex-employee also voiced her concerns about this programme that will push drivers into debt. See <https://twitter.com/AlissaOrlando/status/1308061870453121026>

¹² The Kenyan government directed banks to restructure loans and reschedule the payment period (Central Bank of Kenya, 2020a). Indeed, according to the Central Bank of Kenya (2020b), as at the end of December KSh 1.63 trillion (US\$ 15.28 billion) worth of loans had been restructured, representing 54.3% of the total banking sector loan.

et al. 2020; citation hidden).¹³ In the UK, several Uber drivers died due to the COVID-19 (Booth 2020). Indeed, some drivers we interviewed reported of knowing someone in their networks who contracted the virus while driving and were concerned about their and family's health. Mwangi, a 39-year-old father of three children who has been driving for three years, told us, *"You have to be cautious. You do not know who you are carrying or in what state he or she is. So, generally you are afraid, because you might contract the virus and take it home to your kids"* (Interview Nairobi, January 2021). While some drivers did not go out to drive, others had no option. As a female driver, Susan, who is the only breadwinner in her family and ride-hailing is her primary source of income, noted, *"I also had the fear of Covid. So, for two months I stayed in the house. Then I realised this thing is not going away and I had to go out and work"* (Interview Nairobi, February 2021). Drivers also lamented that some customers do not follow the COVID-19 protocols and the platforms rarely offered much help (see Otieno et al., 2020). Drivers found little help from the platforms.

Discontent towards platforms

As the pandemic raged on, platforms like many other businesses, closed their local offices and sent their support staff to work from home, making it even more difficult for drivers to reach out to them. Our respondents lamented that the ride-hailing platforms ignored them. They expected platforms to lower their commissions, but this wasn't the case. Kimathi is a 32-year-old driver, married and with two kids. He started driving after losing his job in a company he worked as an IT systems administrator. He says, *"We were pleading with them [platforms] to reduce the commission to 10% or 5%... but they never listened. They left the drivers on their own"* (Interview Nairobi, January 2021). In fact, Uber was singled out by drivers for withdrawing some of the incentives for drivers.

¹³ The exposure to infection is also high among informal sector workers who cannot work from home, including street vendors, waste collectors, domestic workers, taxi drivers.

Before the pandemic, on Uber, the first 15 trips of the week were charged at 25% commission and thereafter the commission drops to 3% (confirmed to us by two drivers). Drivers told us Uber changed this staggered commission policy and now all trips are charged at 25%. Another driver, Kimani, also confirmed this change in policy. He said, “*staggered commission was before the pandemic. It used to help us a lot because I would try as much as possible by Monday to do ten trips and do the remaining five on Tuesday. For the rest of the week all trips would be under 3%. But now everything is 25%, no matter how many trips you do*” (Interview Nairobi, January 2021). This type of predatory behaviour was perfectly summed up by a driver, Karis, who says “*The platforms operate like brokers...we own the cars, and they take 25% of our hard-earned money*” (Interview Nairobi, January 2021). Carmody and Fortuin (2019) describe the business model of ride hailing platforms as ‘virtueal accumulation’ (‘accumulation through the internet from labour processes in ‘real’ places and contexts’). It is to be noted that ride-hailing platforms do not own cars or other vehicles through which they accumulate economic value.¹⁴

We asked drivers ‘what is the future for them in this industry? Several drivers grieved about the economic uncertainties involve in this sector. One driver, Wafula, who has been in the ride-hailing industry for three years and works on several platforms, including Uber, Bolt, Little Cab, and Maramoja, aptly summarised their plight. He said:

There is no life in the industry. There is no future in it. This kind of a job is only viable to the people who do not have many responsibilities, like the people who are single. But when you get a family, then it will not work out so well for you. Many drivers are also thinking of an exit plan, so that they can have a stable way of earning income (Interview Nairobi, February 2021).

¹⁴ The same can be said of other platforms such as Airbnb which does not own any hotels.

Nevertheless, in between the uncertainties of livelihoods, economic uncertainties, and discontents among drivers in Nairobi, there are stories of hustles: everyday practices of survival.

5. Hustling and agency

There is long-standing literature within the labour geography research which asserts that workers are active drivers of shaping and reshaping economic geographies through their own spatial fixes, just like capital (see Herod, 1997, 2001). Put simply, workers have agency to influence their working conditions. In the context of Africa, scholars have already examined how workers in the most precarious conditions, particularly in the informal sector, get by their daily lives through a variety of everyday agency practices (e.g. Callebert, 2012; Kinyanjui, 2014; Cooper, 1987). Cooper's (1987) study on Mombasa, Nairobi dock workers show that they rely on nearby rural economy within the wider family, village and regional contexts. Similar accounts can be found in Callebert's (2012) study of Durban based dock workers who often engage in trade, theft, and pilferage, as part of their conscious strategy to combine these activities with dock labour to overcome economic insecurities in their daily lives. In many ways, these dock workers in Africa were hustling to make a living. There is also some literature on the gig economy in Africa which shows workers' attempt to push against platforms. Worker agency here is conceptualised as everyday resilience, reworking, and resistance whereby workers deploy a variety of practices to not only resist platforms' control over labour process but also overcome their precarious existence and ensure their survival (citation hidden) (ibid). Building on this literature, we highlight Nairobi-based drivers' hustle to overcome the impacts of the pandemic. In describing, Nairobi-based ride-hailing drivers' mitigation strategies for the pandemic's impact on their lives and livelihoods, 'hustling' showcases gig workers' agency in the face of adversity. Drivers' daily struggles to secure a livelihood on platforms is about

finding as many gigs as possible to ensure there is food on the table at the end of the day. They also employ other practices which develop into networks of solidarities existing both in people's interpersonal domains and increasingly in digital spaces (citation hidden).

Resilience: interpersonal networks and digital communication channels

Workers in the informal sector are known to depend on multiple sources of income for their livelihoods. While wages continue to be an important source of an income for informal workers, these are not the most important for securing a livelihood. Keith Hart (1973) in his seminal work on Accra's urban poor noted that they often generated their livelihoods from multiple sources (street trading, gardening, gambling, theft and political corruption) with generally low returns (also Callebert, 2017). These practices help them to cope with an event or a shock that threatens their livelihoods such as the current pandemic.

Drivers we spoke to have developed ingenious solutions built around the spirit of *juakali*. Our respondents were involved in various types of street trading and other small-scale entrepreneurial activities to diversify their income sources. One female driver was following her passion in cooking to do outside catering especially on weekends. Others have tried to do online remote work (e.g., marketing and online teaching) and selling agricultural goods. Irungu explained, "*Because there are no trip requests some drivers would travel [to] rural areas, buy some vegetables and sell them from the boot of their cars near the estates where they stay in Nairobi, turning their cars from online taxi to grocery stores*" (Interview Nairobi, January 2021). Indeed, many of Nairobi's residential areas witnessed a mushrooming of informal roadside markets with people selling all kinds of things ranging from groceries, household items, and clothes (Figure 1; also see Odenyo 2020).

Figure 1: *Roadside vendors in Nairobi selling groceries (1a) and clothes (1b).*

(Source: Taken by authors on 17th April, 2021)

Drivers also told us that the family and community networks have been extremely important for them. Help within the community often takes the form of borrowing from friends, family or informal lending through ‘stokvels’ or ‘chama’ (Chidziwisano, Wyche and Kisyula 2020). During the lockdown, drivers helped each other through food, airtime, and medicines.

One of the main avenues beyond their immediate networks of support in the locality were digital communication channels (e.g., WhatsApp and Facebook). These channels have been recognised as important sites of worker agency in the gig economy (citation hidden). Gig workers usually turn to digital communications (e.g., chats, phone calls, video calls) with friends and fellow workers to overcome isolation and loneliness (citation hidden). Social media networks are effective tools for gig workers to overcome adverse implications of their work (ibid). Ride-hailing workers regularly use digital communication channels, such as Facebook to connect with fellow drivers. We, therefore, studied drivers’ interaction on two Facebook groups to understand their everyday practices of resilience and reworking (citation hidden).

Insert Table 1: *Drivers’ engagement and communication on Facebook.*

Drivers’ use of Facebook can be understood as ‘resilience’, which practically means dealing with everyday life situations these drivers have to put up with. Drivers mainly join Facebook groups in search for work. People who do not own cars were primarily looking to find a car to rent (Table 1). Some car owners were looking to find a driver. Stories of daily help and advice are frequent in these posts. For example, finding out which roads, streets, and junctions in the city to avoid for picking up customers, which areas have surge pricing, how to deal with customers if they misbehave, and seeking help if their cars break down. We asked our

respondents to explain the importance of these online groups, including WhatsApp in their lives and work. Patrick, who has been driving on platforms since 2016, told us:

These online groups are like a community network for drivers. We drive all day on the road and hardly get to talk to fellow drivers. We experience harassment, fines, rude customers, and then we have apps [Uber/Bolt] which are trying to screw us. So, in our Facebook or WhatsApp groups, we talk to each other about our problems. People are always ready to help with any issues. We spread information about traffic jams, break downs, and organise driver meetings (Interview Nairobi, June 2020).

Reworking and resistance practices

Some drivers also figured out which days during the week are busy for trips and would drive on those days and not all the time. This allowed them to not burn extra fuel. Others had a good client base from their locality or repeat customers, which offered them regular paid trips. Daniel is a seasoned taxi driver, previously on meter taxis and since 2018 has been operating on various ride-hailing platforms. He has some regular customers who hire him without logging into platforms (Interview Nairobi, January 2021). Platforms design infrastructure is set up in a way that enable their strict control over the distribution of work (Woodcock, 2021). Drivers have to log-in on the app (e.g. Uber or Bolt) to get ride requests and platforms get commission on each trip. Hence, drivers attempt to get around this problem by seeking off-app trips. These off-app clients became the lifeline of many drivers during the pandemic.

The off-app trips are referred by drivers and customers in Nairobi as ‘*Go-Karura*’, and have been a well-established strategy by drivers to avoid commission payments to platforms

(told to us by a number of drivers).¹⁵ A driver, David, explained ‘a customer requests a ride and when we go and collect them, we ask them if they want to ‘*Go-Karura*’. If the customer says yes, then we cancel the trip and take them to their destination without the app and do not have to pay commission on these trips’ (Interview Nairobi, February 2021). Almost every driver we interviewed reported that they were doing *Go-Karura* trips wherever possible. Though, according to one female driver, Mueni, because men have less security concerns than women, they do more *Go-Karura* trips than women (Interview Nairobi, January 2021). The *Go-Karura* practices of Nairobi drivers taking customers without the app is a reworking strategy of drivers to overcome platforms strict control over work and labour process.¹⁶

Go-Karura has another dimension too, whereby drivers in Nairobi have logged off the app to go on strike in protest against platform’s dismal fares and high commission rates (Sperber, 2020; also see Iazzolino, 2021).¹⁷ In August 2016, a group of Uber drivers in Nairobi, decided to go on strike after the platform dropped the fare from KSH 60 to KSH 35.¹⁸ Since, then numerous drivers-led mobilisation and protest movement (strikes and demonstrations) have emerged in Kenya (see Wahito, 2017; Reuters, 2018; The Star, 2019; Bloomberg, 2021). These protests have some minimal positive impacts. For example, a nine-day strike in July 2018 resulted in drivers forcing Uber and Taxify to increase their fares, albeit marginally (Dahir, 2018).¹⁹ Similar protests and strikes have taken place in other parts of the African continent such as in Nigeria (Agunbiade, 2016) and South Africa (Business Insider, 2020; also see ILO, 2021a). The emergence of these movements is a welcome sign for African drivers to

¹⁵ Karura is a forest located north of Nairobi, which has historical significance to the Mau Mau rebellion of the 1950s. Mau Mau often retreated to this forest to regroup and launch guerilla wars against the British colonial administration (see Elkins, 2005).

¹⁶ Uber had started blocking drivers if they cancel a certain number of trips in a day and customers are charged a small fee for cancelling the trip after requesting it.

¹⁷ This has also been covered by Benjamin Walker, an independent radio producer, in one of his podcasts, Theory of Everything. See <https://theoryofeverythingpodcast.com/2019/10/going-karura/>

¹⁸ Fare were raised again in 2017. Reuters, 2017.

¹⁹ Though fares have been reduced again by various platforms in both South Africa and Kenya.

collectively organise and push back against the precarious working conditions they face on platforms.

6. Conclusions: countering ride-hailing platforms.

Despite the gig economy activities providing much-needed paid work opportunities to many African workers, their job quality remains questionable (citation hidden). As we discussed above, the commodified nature of work found on the gig economy platforms such as Uber and Bolt represents increasing informalisation on the continent, contrary to the wisdom of many observers and international development organisations. Much of the African workforce lack adequate social protection to mitigate any external shock or event such as the COVID-19 pandemic. As a result, their vulnerabilities and precariousness have been greatly amplified during the pandemic. However, the stories of despair in Africa go hand in hand with the narratives of hustling and agency. While platforms by design exert power over economic exchange and control labour process to limit workers agency in some respects (e.g. unable to determine wages and working hours), workers have been able to develop unique strategies to survive during the pandemic. These practices are built around resilience, reworking, and resistance strategies. They have developed networks with communities in their localities and in the digital realm to mitigate the loss of income, food, and other necessities during the pandemic. In other words, while pandemic has wrought destruction of lives and livelihoods, workers in the most precarious conditions have been brought closer together to help each other in times of necessity. However, these efforts should be complemented with adequate regulations to facilitate decent working conditions and to push back against the precarious working conditions emerging in the gig economy.

Gig economy platforms have succeeded in avoiding regulations on the back of cunning strategy of labelling themselves as technology companies and workers as independent

contractors. regulations which can hold gig economy companies accountable. Ride-hailing companies have already been challenged in different countries to some success. In 2021, the UK Supreme Court ruled that Uber misclassify drivers as independent contractors and force them to recognise drivers as employees. So, there is a possibility that governments can rein-in the advances of capital over labour and ensuring decent working conditions are achieved in the gig economy. The regulatory authorities in Africa need to include gig workers' voices into the discussion on policies relating to the new world of work including the gig economy. For this to happen, drivers in Africa also need collective mobilisation to ensure their demands are met.

Despite well-known challenges to organise gig workers, there is some evidence of new forms of worker organisation and solidarity emerging in the gig economy, (Cant 2019). As we showed, Kenyan workers are using digital communication channels to develop solidarities during the pandemic and have organised strikes against platforms. Existing trade unions need to pay particular attention to the changing nature of work and be sensitive to the new ways of communication and engagement with gig workers. For union organisers in Kenya, digital communication channels such as Facebook offer an excellent tool to mobilise workers (see Schradie, 2015). As movements against ride-hailing platforms grow globally, there is an opportunity to build wider socio-political responses against the systemic exploitation inherent in the global economy. There have been some successful campaigns in high-income countries. The UK drivers have successfully launched a new trade union for ride-hailing drivers called App-drivers Couriers Union (see Radulovic-Viswanatha 2020). Similar movements have been hard to come by in Africa, despite ongoing activism of ride-hailing drivers in several countries such as Kenya, Nigeria, and South Africa (Prinsloo, Alake, and Genga, 2021). Future research can examine the dynamics of gig workers' movements in Africa and the prospects and challenges of mobilising and organising in the gig economy on the continent.

Acknowledgements:

The authors would like to thank the editors and anonymous reviewers for their useful comments and feedback which has improved this paper. We are also grateful to the British Academy (Grant No. SRG20\200635) and the University of Edinburgh for funding our research.

References:

Agunbiade, T. 2016. 'Uber Drivers in Abuja Are Going on Strike, Starting Today'. *TechCabal* (blog). 31 October 2016. <https://techcabal.com/2016/10/31/uber-drivers-abuja-strike/>.

Akwagyiram, Alexis. 2019. "Uber targets expansion in fast-growing West African markets". *Reuters*, 27 June 2019.

Amorim, Henrique., and Felipe Moda. 2020. Work by app: Algorithmic management and working conditions of Uber drivers in Brazil. *Work Organisation, Labour & Globalisation*, 14(1): 101-118.

Barbosa, Sérgio., and Stefania Milan. 2019. Do Not Harm in Private Chat Apps: Ethical Issues for Research on and with WhatsApp. *Westminster Papers in Communication and Culture* 14(1): 49–65.

BBC. 2019. "Uber's expansion into Africa". *BBC News*, 11 March 2019. <https://www.bbc.com/news/av/business-47518342>, accessed 8.10.20.

Berg, Janine., Marianne Furrer, Ellie Harmon, Uma Rani, and Six Silberman. 2018. Digital labour platforms and the future of work: Towards decent work in the online world. Geneva: ILO.

Block, Emily S., and Laura Erskine. 2012. Interviewing by Telephone: Specific Considerations, Opportunities, and Challenges. *International Journal of Qualitative Methods* 11: 428–445.

Bloomberg, 2021. Uber, Bolt Drivers in Africa Protest High Cost of Operations, 19 April 2021. <https://www.bloomberg.com/news/articles/2021-04-19/uber-bolt-drivers-in-africa-protests-higher-costs-of-operations>, 05.16.21.

Booth, Robert. 2020. "Uber driver dies from Covid-19 after hiding it over fear of eviction". *The Guardian*, 17 April 2020. <https://www.theguardian.com/world/2020/apr/17/uber-driver-dies-from-covid-19-after-hiding-it-over-fear-of-eviction>, accessed 04.16.21.

Business Insider. n.d. 'Uber Eats Strike in Gauteng May Spread to Other Cities as Drivers Protest Fee Cuts'. Business Insider. Accessed 4 March 2021. <https://www.businessinsider.co.za/uber-eats-strike-in-gauteng-2020-12>.

Callebert, Ralph. 2012. Cleaning the wharves: Pilferage, bribery, and social connections on the Durban docks in the 1950s, *Canadian Journal of African Studies*, 46:1, 23-38.

Callebert, Ralph. 2017. *On Durban's Docks: Zulu Workers, Rural Households, Global Labor*. Rochester: University of Rochester Press.

Cant, Callum. 2019. *Riding for Deliveroo: Resistance in the Gig Economy*. London: Polity Press.

Carmody, Pádraig., and Alicia Fortuin. 2019. "Ride-sharing", virtual capital and impacts on labor in Cape Town, South Africa. *African Geographical Review* 38(3):196–208

Central Bank of Kenya. (202a). Twenty Fourth Bi-Annual Report of the Monetary Policy Committee - April 2020. Nairobi: Central Bank of Kenya

Central Bank of Kenya. (2020b). Monetary Policy Statement - December 2020. Nairobi: Central Bank of Kenya

Chen, Martha. 2020. COVID-19, Cities and Urban Informal Workers: India in Comparative Perspective. *Indian Journal of Labour Economics*. 63, 41–46.

Chen, Martha and Françoise Carré, (eds) 2020. *The Informal Economy Revisited: Examining the Past, Envisioning the Future*. Routledge, London.

Chidziwisano, George Hope., Susan Wyche, & Rellika Kisyula. 2020. SmartChama: Designing Collaborative Digital Financial Systems for Chama Groups in Kenya, in: Proceedings of the 2020 International Conference on Information and Communication Technologies and Development. *Association for Computing Machinery*, Ecuador, pp. 1–12.

Cooper, Frederick. 1987. *On the African Waterfront: Urban Disorder and the Transformation of Work in Colonial Mombasa*. New Haven: Yale University Press.

Dahir, Abdi Latif. 2018. 'Uber and Other Ride-Hailing Apps Are Facing a Major Test in Kenya—from Drivers Themselves'. Quartz Africa. 2018. <https://qz.com/africa/1327568/uber-taxify-little-cab-kenya-drivers-end-strike/>.

Dubal, Veena. 2019. "Uber's new loan program could trap drivers in cycles of crushing debt". *The Guardian*, 05 December 2019. <https://www.theguardian.com/commentisfree/2019/dec/05/uber-loan-program-debt>, accessed 04.16.21.

Elkins, Caroline 2005. *Imperial Reckoning: The Untold Story of Britain's Gulag in Kenya*. New York, NY: Henry Holt and Company.

Ens, N. and Márton, A. (2021) "“Sure, I saw sales, but it consumed me” from resilience to erosion in the digital hustle economy", *New Media & Society*. doi: 10.1177/14614448211054005.

- Finextra. (2016). Uber Kenya and Sidian bank launch car financing service. *Finextra News*, 26 May 2016. <https://www.finextra.com/pressarticle/64585/uber-kenya-and-sidian-bank-launch-car-financing-service>, accessed 04.16.21
- Fox, Louise., Lemma W. Senbet, Witness Simbanegavi. 2016. Youth Employment in Sub-Saharan Africa: Challenges, Constraints and Opportunities. *Journal of African Economies* 25(1): 3–15.
- Gandini, Alessandro. 2019. Labour process theory and the gig economy. *Human Relations* 72: 1039–1056.
- Giddy, Julia Kathryn. 2019. The influence of e-hailing apps on urban mobilities in South Africa. *African Geographical Review* 38(3): 227-239.
- Goods, Caleb., Alex Veen, and Tom Barratt. 2019. “Is your gig any good?” Analysing job quality in the Australian platform-based food-delivery sector. *Journal of Industrial Relations*. 61(4):502-527.
- Gray, Mary L., and Siddarth Suri. 2019. *Ghost Work: How to Stop Silicon Valley from Building a New Global Underclass?* New York: Houghton Mifflin.
- Grunewald, Adam. 2019. “A gig economy solution to boost employment in Africa”. *Brookings*, 20 March 2019. <https://www.brookings.edu/blog/africa-in-focus/2019/03/20/a-gig-economy-solution-to-boost-employment-in-africa/>
- Honwana, Alcinda M. 2012. *The Time of Youth: Work, Social Change and Politics in Africa*. Virginia: Kumarian Press.
- Huws, Ursula., Neil H. Spencer, Dag S. Syrdal, and Kaire Holts. 2017. Work in the European gig economy: Research results from the UK, Sweden, Germany, Austria, the Netherlands, Switzerland and Italy. FEPS/Uni Global/University of Hertfordshire, Hatfield.
- Iazzolino, G. 2021. ‘Going Karura’: colliding subjectivities and labour struggle in Nairobi’s gig economy, *Environment and Planning A*. doi: 10.1177/0308518X211031916.
- ILO. 2018. *Women and men in the informal economy: A statistical picture*. Geneva: ILO.
- ILO. 2019. *The global labour income share and distribution*. Geneva: ILO.
- ILO. 2020a. As job losses escalate, nearly half of global workforce at risk of losing livelihoods. *ILO*, 29 April 2020 https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_743036/lang--en/index.htm.
- ILO. 2020b. *World Employment and Social Outlook: Trends 2020*. Geneva: ILO.
- ILO. 2021a. *World Employment and Social Outlook: The role of digital labour platforms in transforming the world of work*. Geneva: ILO.

ILO. 2021b. 'COVID-19 and the world of work. Seventh edition. Updated estimates and analysis'. *ILO*, 25 January 2021 https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_767028.pdf.

Insight2impact, 2018. African digital platforms and the future of digital financial services. CENFRI. Cape Town. URL <https://i2ifacility.org/insights/articles/african-digital-platforms-and-the-future-of-digital-financial-services?entity=news>

Insight2impact. n.d. Africa's digital platforms database. *isight2impact Digital Platform Database*. http://access.i2ifacility.org/Digital_platforms/.

Intelligent Transport. 2018. "Cairo welcomes the debut of Uber's minibus service, Uber Bus". *Intelligent Transport News*, 5 December 2018. <https://www.intelligenttransport.com/transport-news/74089/cairo-uber-minibus-service/>.

Kenya National Bureau of Statistics. (2019). *Economic Survey 2019*. Nairobi: Kenya National Bureau of Statistics.

Kesar, Surbhi., Rosa Abraham, Rahul Lahoti, Paaritosh Nath, and Amit Basole. 2021. Pandemic, informality, and vulnerability: Impact of COVID-19 on livelihoods in India, *Canadian Journal of Development Studies*, DOI: 10.1080/02255189.2021.1890003.

Kinyanjui, Mary. 2014. *Women and the Informal Economy in Urban Africa: From the Margins to the Centre*. London: Zed Books.

Kuek, Siou Chew., Cecilia Paradi-Guilford, Toks Fayomi, Saori Imaizumi, Ipeiritis Panos, Patricia Pina and Manpreet Singh. 2015. *The global opportunity in online outsourcing*. Washington DC: World Bank.

Macharia, Ken. 2017. "Uber has 363,000 active riders in Kenya driven by 5,000 drivers". *Capital Business*, 28 September 2017. <https://www.capitalfm.co.ke/business/2017/09/uber-has-363000-active-riders-in-kenya-driven-by-5000-drivers/>, accessed 9.29.20.

Meagher, Kate. 2018. "Rewiring the Social Contract: Digital Taxes and Economic Inclusion in Nigeria", Paper presented at the UNRISD Conference, Geneva, November 2018.

Muchira, Njiraini. 2019. "Auctioneer's hammer to fall on Uber cars". *The East African*, 06 April 2019. <https://www.theeastafrican.co.ke/tea/business/auctioneer-s-hammer-to-fall-on-uber-cars-1415606>, accessed 19.10.20

Muriuki, Benjamin. 2020. "Ethiopian taxi hailing app Taxiye enters Kenyan Market." *Citizen Digital*, 29 September 2020. <https://citizentv.co.ke/business/ethiopian-taxi-hailing-app-taxiye-enters-kenyan-market-346518/>, accessed 04.19.21.

Odenyo, Akello. 2020. "Car-boot market thrives during pandemic". *The Star*, 26 May 2020. <https://www.the-star.co.ke/news/2020-05-26-car-boot-market-thrives-during-pandemic/> accessed 04.19.21.

Odhiambo, V. 2021. Taxi hailing app drivers reject imposition of digital tax. *Metropol Tv* <https://metropoltv.co.ke/2021/02/23/taxi-hailing-app-drivers-reject-imposition-of-digital-tax/>

Otieno, Elly., Malte Stein, and Mohammad Amir Anwar. 2020. "Ride Hailing Drivers Left Alone at the Wheel: Experiences from South Africa and Kenya". In *COVID-19 in the Global South: Impacts and Responses*, edited by Pádraig Carmody, Gerard McCann, Clodagh Colleran, and Ciara O'Halloran. Bristol: Bristol University Press.

Pollio, A. 2019. "Forefronts of the Sharing Economy: Uber in Cape Town". *International Journal of Urban and Regional Research*. 43, 760-775.

Prinsloo, Loni., Tope Alake, and Bella Genga. 2021. "Uber and Bolt drivers in Nigeria and Kenya protest over rising costs". *Business Day*, 19 April 2021. <https://www.businesslive.co.za/bd/companies/2021-04-19-uber-and-bolt-drivers-in-nigeria-and-kenya-protest-over-rising-costs/>

Radulovic-Viswanatha, Neda. 2020. "App-based drivers will not be taken for a ride". *Counterfire*, 26 July 2020. <https://www.counterfire.org/articles/opinion/21455-app-based-drivers-will-not-be-taken-for-ride>

Rani, Uma., and Marianne Furrer. 2020. Digital labour platforms and new forms of flexible work in developing countries: Algorithmic management of work and workers. *Competition & Change*. <https://doi.org/10.1177/1024529420905187>

Ravenelle, Alexandra J. 2019. *Hustle and Gig: Struggling and Surviving in the Sharing Economy*. Oakland, CA: University of California Press.

Reuters. 2018. 'Kenya Ride Hailing Taxi Drivers Reach Deal for Higher Fares after Week of Strike'. *Reuters*, 11 July 2018. <https://www.reuters.com/article/us-kenya-taxis-idUSKBN1K12F1>

Rockefeller Foundation. 2014. Online Work: A New Frontier for Digital Jobs Africa. *Rockefeller Foundation Blog*, 17 March 2014. <https://www.rockefellerfoundation.org/blog/online-work-new-frontier-digital-jobs/>.

Rosenblat, Alex. 2018. *Uberland: How Algorithms Are Rewriting the Rules of Work*. Oakland, CA: University of California Press.

Samuel, Vineet John. 2020. Uberizing Informality: The Case of Non-owner, Driver-Partners in the City of Hyderabad. *The Indian Journal of Labour Economics* 63: 511–524.

Schradie, J. 2015. Political Ideology, Social Media, and Labor Unions: Using the Internet to Reach the Powerful Not Mobilize the Powerless? *International Journal of Communication* 9, 1987–2006.

Shankar, Kalpana. 2018. Ethnography, Documents, and Big Data: Reflections on Teaching with David Hakken. *Anthropology of Work Review* 39(1): 17–21.

Sperber, Amanda. 2020. "Uber made big promises in Kenya. Drivers say it ruined their lives". *NBC News*, 30 November 2020. <https://www.nbcnews.com/news/world/uber-made-big-promises-kenya-drivers-say-it-s-ruined-n1247964>, accessed 04.16.21

- Srnicek, Nick. 2016. *Platform Capitalism*. Cambridge, UK; Malden, MA: Polity Press.
- The Star. 2019. 'Uber, Bolt Drivers Strike over Unimplemented MoU'. The Star. 2019. <https://www.the-star.co.ke/business/2019-07-15-uber-bolt-drivers-strike-over-unimplemented-mou/>.
- Thieme, Tatiana. 2018. The hustle economy: Informality, uncertainty and the geographies of getting by. *Progress in Human Geography*. 42(4):529-548.
- TradeMark East Africa. (2021). *The Effects of Covid-19 on Women Cross Border traders in East Africa*. Nairobi: TradeMark East Africa.
- Uber. 2020a. *2019 Annual Report*. San Francisco, CA.
- . 2020b. A First Step Toward A New Model For Independent Platform Work, San Francisco, CA.
- . 2020c. 2020 Investor Presentation, 6 February.
- Uber. n.d. Vehicle finance in Kenya. *Uber*. <https://www.uber.com/ke/en/drive/vehicle-solutions/leasing/?city=nairobi>, accessed 04.16.21.
- Upwork. 2015. Freelancers Union and Upwork release new study revealing insights into the almost 54 million people freelancing in America. *Upwork Press*. <https://www.upwork.com/press/2015/10/01/freelancers-union-and-upwork-release-new-study-revealing-insights-into-the-almost-54-million-people-freelancing-in-america/>.
- Steven Vallas and Juliet B. Schor. 2020. What Do Platforms Do? Understanding the Gig Economy. *Annual Review of Sociology*, 46(1): 273-294.
- Van Doorn, Niels and Adam Badger. 2020. Platform Capitalism's Hidden Abode: Producing Data Assets in the Gig Economy, *Antipode*, 52(5): 1475-1495.
- Vigh, Henrik. 2006. *Navigating Terrains of War: Youth and Soldiering in Guinea-Bissau*. New York - Oxford: Berghahn Books
- Wahito, M. 2017. 'Uber Increases Price in Kenya after Drivers' Protest'. Capital Business. 16 March 2017. <https://www.capitalfm.co.ke/business/2017/03/uber-increases-price-in-kenya-after-drivers-protest/>.
- Webster, Edward., Katherine Joynt, and Thabang Sefalafala. 2016. Informalization and decent work: Labour's challenge. *Progress in Development Studies* 16: 203–218.
- Woodcock, J. 2021. 'The Limits of Algorithmic Management: On Platforms, Data, and Workers' Struggle', *South Atlantic Quarterly*, 120(4): 703–713.
- World Bank. 2016. *World Development Report 2016: Digital dividends*. Washington DC: World Bank.