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# Connecting without Protecting: Intermediating the Internet Economy in Digital Livelihoods Provision for Refugees

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## Abstract

The global spread of online work opportunities has inspired a new generation of market-based aid that connects forcibly displaced people to a transnational internet economy. Because refugees face barriers to making a livelihood online, aid organisations and private enterprises support them by building bridges across digital divides, connectivity problems or skill gaps. They thereby become intermediaries and brokers that facilitate connections between refugees and online income opportunities, which often lack decent working conditions and adequate protections. Because digital livelihood initiatives lack the power to reshape these conditions and the value of work in the internet economy, they fail to become mediators with a transformative impact. The result is that the internet economy reshapes livelihoods provision far more than aid can reshape its disempowering effects, despite successes in driving forward refugees' digital inclusion. Based on more than three years of research including interviews, field visits and surveys, this article foregrounds the current risks that result from the inclusion of refugees into precarious forms of online gig work. To ensure a decent future of work for refugees in the internet economy, the current push for digital livelihoods will require an equally strong push for stronger protections, inclusive regulations and rights.

**Keywords:** digital economy; digital labour; refugees; mediation; intermediation; brokerage

## Introduction

The spread of a transnational digital economy has inspired a wide range of new approaches to livelihoods provision in humanitarian aid and international development. With the emergence of the *Future of Work* as a central theme of global governance and development (Silva, 2021), many organisations have launched programmes that link aid to a web-based economy. This has given rise to a new digital era of marketised aid, in which refugee-serving organisations see online freelance work as a vehicle for 'entrepreneurial' self-reliance (Easton-Calabria, 2022). Web-based income opportunities appear particularly relevant for forcibly displaced people because they seem detached from local regulations and markets. This makes them especially relevant in contexts where

refugees face restricted labour market access and work in informal economies.

While the wider *digital economy* incorporates all kinds of economic activity that is dependent on, or significantly enhanced by, digital technologies (OECD, 2020: 36–7), the internet economy is characterised by work and trade that is intermediated by web-based infrastructures, such as digital labour platforms. Such *platforms* facilitate work using digital technologies to intermediate between workers and clients, or directly engage workers in labour services; this line of work is often referred to as 'platform work' or 'gig work' (ILO, 2021: 33). Online platforms play an increasingly prominent role in *digital livelihoods* initiatives, which tap into this internet economy and often incorporate digital upskilling and other support to increase people's capacity to access online income opportunities and overcome barriers.



The kinds of work that refugees do on platforms are diverse and require varying skill levels. Microwork, for example, features an educated workforce doing low-skill tasks that platforms unbundle into smaller segments and disperse to a ‘crowd’ (ILO, 2021: 24, 75). One example for microwork is annotating objects in photographs to train the visual recognition of Artificial Intelligence (AI). Workers who label such data mostly do not have access to a fair wage or basic benefits (Sinders, 2020). Refugees have also been engaged in advanced online freelance work, such as software programming or web design, as well as work that is not digital in itself but is intermediated by a digital platform, such as language translation work. Yet, the greater accessibility of microwork for people with lower educational backgrounds has made this field particularly widespread.

Indeed, as growing numbers of refugees and poor people survive on ‘petty data work’, organisations like the World Bank ‘have cast microwork as the latest saviour in a long line of measures promising to rescue economies of the Global South’ (Jones, 2021: 4). This global push for digital livelihoods has simultaneously allowed enterprises and platforms to ‘reach once inaccessible segments of the global workforce’ (Jones, 2021: 12). This promotion of digital labour effectively inscribes key characteristics of the internet economy into the principles of livelihoods provision in aid, such as self-employed work with a lack of social protections and low wages. This inscription of gig work into refugee-serving aid opens a new chapter in the long-standing conception that economic livelihoods are the primary ‘vehicle’ for realising refugee self-reliance (Easton-Calabria, 2022: 4). Digital livelihoods accelerate this longer process, in which market dependency and informal work have come to define refugee self-reliance, while refugee-serving agencies become ‘problematic arbiters’ of such market relations (Easton-Calabria, 2022: 14). They become intermediaries between refugees and an internet economy characterised by informality, precarity and indecent working conditions.

I have followed the evolution of digital livelihoods as a field of humanitarian and development practice through my own research and through consultancy work with international organisations operating in this field. As most major aid organisations are now innovating new approaches to digital refugee livelihoods, they all grapple with some version of the same unresolved dilemma: if they build bridges to overcome barriers in digital access and connect people to web-based income opportunities, how can they ensure that they also remain protected in a largely unregulated and precarious internet economy that is defined by indecent working conditions, risks and a race to the bottom of the earnings pyramid? Put differently: if they become intermediaries between

refugees and the internet economy, can they also mediate – or reshape – its disempowering conditions and effects?

This article offers a critique of the current failure to resolve this problem in current digital livelihoods provision, focusing on forms of intermediation that build pragmatic bridges and workarounds to circumvent specific barriers and gaps between refugees and the internet economy. After discussing the methods and research that underpin its arguments, this article will explore intermediation and brokerage in conceptual terms against the backdrop of a deepening marketisation of refugee-serving aid. It will then discuss the various forms of intermediation across connectivity and skill gaps in current digital livelihoods initiatives. This is followed by a critical evaluation of the limited capacity of these initiatives to negotiate and recalibrate the conditions imposed by the internet economy, including the value of labour it predetermines.

## Methods

The research behind this article spans more than three years (2019–22) and includes data from interviews, field visits and online surveys. The first phase of research was a two-year project with a focus on digital refugee livelihoods in the cities of Beirut and Berlin. In selecting these case studies I aimed to maximise comparative insights on how different economic and policy contexts can impact the feasibility of digital livelihoods. The case study on Lebanon was supported by the researcher Watfa Najdi and included 63 interviews with Syrian refugees and Lebanese citizens, alongside some 43 interviews and meetings with experts. The data from Germany was gathered by the author and the researcher Philip Rushworth, including 42 interviews alongside observations from fieldwork. Lastly, the author conducted online remote surveys of 129 digital workers, most of them refugees, across four different work platforms and a survey among training graduates in Germany and Lebanon. The results were analysed with Python and in Excel using simple numerical analysis and cross tabulation.

A collaboration with the International Labour Organization (ILO) during this first phase of the project laid the foundations for subsequent ILO-commissioned research on refugees in the digital platform economy in Kenya, Uganda and Egypt, in collaboration with researchers at the social enterprise, Samuel Hall. The total number of interviews conducted in this second phase was 61, including digital refugee workers and skills training participants, digital labour platforms as well as experts at aid organisations and their local partners. This applied project was co-designed with the ILO and the three countries were selected in part because they have been a focal point for national and international efforts that seek

to leverage the development opportunities posed by the digital economy in Africa. The data behind this article therefore emerged from two interlinked but also separate projects, which in turn form part of an ongoing research agenda that continued at the time of writing. This article represents a first attempt at analysing a cross-cutting theme of these separate projects covering several localities, as well as transnational actors and digital development efforts beyond specific national contexts.

## Intermediating Digital Livelihoods

The current embrace of digital economies in the development and humanitarian sectors deepens a long-standing marketisation of aid, with many organisations prioritising refugees' integration into markets over the provision of material goods (Pascucci, 2021). This wider trend has fashioned refugees as entrepreneurial subjects that are resilient, adaptive and responsible for their futures (Ilcan and Rygiel, 2015). Such market-oriented humanitarianism can reduce aid to reciprocal transactions in which 'choice through the market is the ultimate mark of freedom, and so the market is ... the most liberating and efficient means through which to provide services' (Currión, 2018: 12; Fiori *et al.*, 2016). Meanwhile, platform companies have increasingly become involved in these marketised humanitarian responses and development efforts (Currión, 2018). Although 'liberating' in some ways, the online market is exclusive in other ways, which requires from intermediaries to innovate corrective interventions that cushion refugees against, or help them circumvent, its disempowering effects.

This may be surprising because digital labour platforms are often said to directly match service providers with clients, thereby *dis-intermediating* traditionally more complex networks within labour markets. This should make the need for any other intermediaries obsolete, at least from the viewpoint of a widely promoted imaginary in which anyone from anywhere in the world can make money online by simply joining a platform (Kaurin, 2020). The problem is that such disintermediation produces myriad barriers for a wide range of marginalised populations, such as refugees. These include barriers to access such as the high costs of information and communications technology (ICT) ownership, a lack of internet access or limited digital skills (Foster *et al.*, 2019: 57). But even where inclusion into the internet economy succeeds, platform labour leaves workers exposed to the vagaries of a transnational external digital labour market in which labour regulations and rights remain widely absent (Wood *et al.*, 2019). Refugees therefore not only face many barriers in accessing online income opportunities but also face

challenges and risks as a consequence of their inclusion in the internet economy.

Yet the bulk of digital livelihoods interventions has focused on access-related barriers and inclusion: providing internet connection, digital upskilling, facilitating digital payment mechanisms or connecting refugees to platforms. Addressing the challenges that follow access and inclusion, such as the precarious working conditions and low pay that result from refugees' incorporation into digital labour markets, has been less successful. This is in part because aid organisations, non-governmental organisations (NGOs) and other actors functioning as market intermediaries lack the power to transform the conditions imposed by the internet economy. An *intermediary* in humanitarian action implies an actor that connects and encompasses 'international, national and local groups, networks and individuals' (Fast, 2019: 2). The research in this article will highlight that digital livelihoods interventions must shift from being mere intermediaries to being more powerful *mediators* between the internet economy and refugees. While intermediaries can be connective, they largely channel an input without changing it; and mediators have the capacity to transform what is being mediated (Latour, 2005).

Many actors in digital livelihoods fail to become transformative mediators in this sense in part because platforms have the power to determine the rules of interaction, working conditions or the value of labour within their own digital ecosystem (McKenzie, 2022). At the same time, restrictive and non-conducive regulations limit the extent to which intermediation can turn digital refugee livelihoods into economic self-reliance. Often precariously positioned in the narrow space between non-conducive regulations and the internet economy, digital livelihoods initiatives become brokers that provide access, while innovating practical workarounds.

Brokerage has long been used to analyse labour migration (Kaur, 2012) and, more recently, digital labour markets (Soriano, 2021). Individual or institutional brokers are network specialists that build bridges across various social or economic gaps (Lindquist, 2015; James, 2011; Meehan and Plonski, 2017). Tellingly for digital refugee livelihoods, brokerage is most relevant where exclusion and barriers to connect are prevalent. As brokers often negotiate connections between centres and margins, they must span 'structural holes in networks' (Cunningham *et al.*, 2013: 484; Goodhand, 2008; Burt, 1992). Examples for such 'holes' in the network between refugees and the internet economy are connectivity gaps and a lack of viable digital payment services – two areas where aid organisations are currently heavily invested. The ongoing intermediation by brokers often remains essential because the underlying disconnect is not

eliminated but only pragmatically circumvented. The result is often reliance rather than self-reliance.

### Building Incomplete Bridges: Circumventing Connectivity and Skill Gaps

Inspired by ideas that digital jobs are a ‘fast lane’ to employment for refugees (Rushworth and Hackl, 2021), a large variety of training programmes now provide everything from basic computer literacy to advanced programming. Yet, only few refugees have the education and capacity to become competitive as skilled freelancers in a digital labour market that features competition on a planetary scale (Graham and Anwar, 2019), with high average educational levels on freelancing platforms (ILO, 2021). The same can be true for accessing local digital jobs. Wassim El-Hajj, who developed the curriculum of the Digital Skills Training (DST) programme at the American University of Beirut (AUB), funded by the World Food Programme (WFP), said that participants often had an unrealistic expectation because ‘even after their third course, they are not computer scientists yet’. One student of the programme, who complained about the skills that she was taught, illustrated this problem by saying, ‘You are telling me a story but not the end of it. When we were faced with the labour market, we saw how much we were lacking.’

This was even before Lebanon suffered under one of the world’s worst economic crises since the mid-nineteenth century while hosting the highest per capita refugee population in the world (World Bank, 2021). Tight restrictions on refugee’s labour market access, alongside weak and unreliable ICT infrastructures and very high costs of internet connectivity, make Lebanon one of the most challenging environments for digital refugee livelihoods. Growing numbers of unemployed skilled university graduates meet a market without sufficient jobs.

Naem, who had a university degree but worked in the informal construction sector, admitted that he learnt much in training programmes but added: ‘To be honest, the amount of information we received does not allow us to compete in the market. It’s not enough.’ The skills he learnt were basic and although they ‘studied some of the advanced tools’, they only did a brief overview of programming languages. ‘These skills do not allow you to secure a job or even start your own business,’ he said. As a consequence, rather than getting paid for skilled work he volunteered with a local non-profit association. ‘There are no jobs or work opportunities, so I make use of my time by volunteering.’ Instead of becoming economically self-reliant the outcome of his training was to work without pay on top of his job as a construction worker.

These examples give the impression that short training is insufficient preparation to succeed either in the online or local labour markets. Digital training with higher success rates in placing refugees in employment tends to be longer and intensive while matching skill profiles with the demand in the labour market of a strong local IT economy, such as in Germany. In Berlin, coding schools are focused on filling the many empty places in a hi-tech sector suffering from a shortage of skilled IT workers.

A survey conducted in 2020 in collaboration with the author by the ReDI School of Digital Integration in Berlin, which serves refugees alongside migrants and some disadvantaged locals, showed that while 40 per cent of 101 respondents who graduated between 2016 and 2019 stated they were working full-time, refugees had lower full-time employment rates than other students: among the 51 respondents with refugee status, the share of those working full-time was only 29 per cent (Rushworth and Hackl, 2021). The picture looks far worse in Lebanon, where only a small minority of graduates of the DST programme found work: a 2019 follow-up survey conducted by programme staff among 542 Syrian and Lebanese participants who had participated in trainings during the preceding twelve months showed that only 13 per cent were employed (Shibli *et al.*, 2021: 32). This was to a large part because of Lebanon’s economic crisis and its restrictive regime for refugees. While it is clear that Germany and Lebanon are very unequal points of comparison, this data shows that the success of intermediation in digital livelihoods is heavily dependent on national restrictions and regulations, alongside the demand in the IT sector. In highly restrictive environments, intermediation through upskilling risks building bridges to nowhere. As Hassan, a participant in an early DST cohort, said in an interview: ‘We joined it in the hope to find work afterwards ... we did some short work, it was badly paid ... but in the end there was no work offered after that. We sat back at home without any work.’

Because skill development can be insufficient for finding digital work, initiatives try to incubate graduates. *Incubation* has been prominent in entrepreneurship programmes, many of which include disadvantaged populations such as refugees (Hackl, 2021). An incubator’s main goal is usually to produce successful and independent individuals or firms that leave the incubator financially viable and ‘freestanding’ (Aernoudt, 2004: 128) – to produce self-reliant entrepreneurs. The DST programme tried to incubate graduates in a shielded real-work environment as the WFP commissioned microwork internships in image annotation and data cleaning. A second attempt to organise a ‘supported virtual microwork internship programme’ with an outsourcing company failed

because students would have made less than US\$2 per hour. Graduates that tried to access digital platforms independently reported ‘negative experiences for a variety of reasons and discouraged their peers from microwork’ (Shibli *et al.*, 2021: 34). These experiments indicate the limitations of intermediating between refugee workers and platforms.

However, this does not mean that platform work is not an important livelihoods resource. At one platform for image annotation, a survey the author conducted among 30 Syrian and Lebanese workers in 2020 showed that this work was the sole source of income for 80 per cent of respondents, while the average monthly income respondents estimated was only US\$270 for an average self-estimate of 140 hours a month (Hackl, 2022). From a humanitarian perspective, at least, this data underlines the significance of digital livelihoods as an economic survival strategy, but there is a big difference between getting by and being self-reliant and economically secure.

Even if refugees acquire the necessary skills to make money online, another major barrier often lies in connectivity. Some training graduates did not even have a computer or internet access. In Lebanon, the crisis has further worsened chronic electricity cuts and an unreliable internet connection, and this affects refugees disproportionately because they are concentrated in areas with the weakest ICT infrastructure. In Kenya, where refugees are concentrated in camps, generator-dependent power and internet access are unstable and limited to certain hours. In many ways, Kenya has been a forerunner in digitalising its economy and innovating technologies that drive forward inclusion, such as mobile money services that allow the unbanked to get paid for online work or e-commerce. However, refugees face many layers of ICT marginalisation that are not remedied by digital livelihoods interventions.

Abdifatah, a Somali refugee living in Kenya’s Dadaab camp, was one of the early beneficiaries of a programme connected to the Dadaab Collective Freelancing Agency, which is supported by the International Trade Centre (ITC), the Norwegian Refugee Council (NRC) and Upwork. Abdifatah said that generators produce electricity only between certain times and shut down around 10 p.m. ‘If you need it at night there is nothing you can do,’ he said, while explaining that night-time in Kenya was often when most jobs are posted by clients in North America. The transnational character of a web-based labour market, paired with insufficient power supply, limits the extent to which the mediating efforts by aid organisations could bridge gaps in connectivity, geography and time.

The Agency built on several years of digital skills training programmes. Abdifatah explained that an initial ‘blanket distribution’ of laptops in the programme was

replaced by a more competitive approach where only those who already achieved some success in getting paid for online work received the hardware. ‘But for you to show that success, you have to have a laptop in the first place. There is a gap,’ he said. In Lebanon, too, some Syrian digital skill training graduates found themselves without hardware and connectivity. Naem, who was 29 years old and lived with his wife and children in Sidon, struggled to use the skills he learnt and was without a secure job that matched his skillset. Asked whether he tried to join another training to improve his skills, he said: ‘I thought about it, but I did not take any. I am not sure how to find opportunities because I cannot pay for training sessions and I do not own a computer.’ The aim to create economic self-reliance through digital livelihoods has become a contradictory aspiration because refugees often remain dependent on mediating interventions for connectivity, access to jobs and skill development. As competitive business models of refugee ‘entrepreneurs’ become inscribed into aid-funded programmes, connectivity becomes dependent on success in making an income, but success is also dependent on connectivity.

## Brokering Digital Livelihoods: Working around Gaps

Intermediation remains necessary in digital refugee livelihoods because some of the structural barriers and disconnects cannot be addressed. Refugees and the actors supporting them must therefore focus on finding work-arounds by brokering connections across ‘structural holes’ between them and the internet economy (Cunningham *et al.*, 2013: 484; Burt, 1992). Three of the most persistent ‘structural holes’ in the digital network between refugees and the internet economy are connectivity gaps and a lack of viable digital payment services and ID-verification mechanisms.

Brokerage becomes necessary even to acquire basic internet connectivity in restrictive refugee contexts. In Bangladesh, which hosted some 963,733 Rohingya refugees by 2022, the government had instructed operators to stop selling SIM cards to refugees in 2019 and blocked internet access, which was not restored until August 2020. The Rohingya were unable to legally acquire cards and used informal brokers to acquire them illegally (Hussain, 2021). A range of ‘informal intermediary networks’ took on functions of brokerage between the internet and the disconnected Rohingyas (Hussain, 2021: 58). Even where the basic level of connectivity is secured, another difficulty for refugees in making a livelihood online are financial services.

One story has become particularly familiar throughout my research: refugees are trained and encouraged to

work online, only to find out that they are in fact excluded from the ability to receive money. The problem was well summarised by Enrique Jose Garcia, the CEO of DignifAI, an online outsourcing platform for AI data annotation supporting Venezuelan refugees. Speaking at the Migration Summit in 2022, he explained how the positive impact of Colombia's decision to legalise Venezuelan refugees through temporary protection was limited by regulations and the banking sector. 'The banking industry still required documentations and permissions for refugees to open a bank account,' he said, adding that the alternative – digital wallets – was restricted by banking laws and policies originally established to prevent cross-border money laundering activities. 'The local banking system restricts fintech systems to emerge and innovate new products and services to allow these refugees and migrants to be paid through digital means ... the door is open but they cannot walk through the door because they cannot get paid.' The result is that DignifAI must be equally restrictive in its selection of workers, making access to a bank account a precondition for being onboarded.

This illustrates that digital livelihoods initiatives often have no choice but to accept both the exclusive elements of the internet economy and the restrictions of local policies and regulations. Many refugees fall through the cracks. Asked whether he considered to try his luck as an online freelancer, Naem in Lebanon said: 'They told us about this during the trainings. But they said that we need a bank account to start working. There is no way I can get a bank account, so I did not try it or look up opportunities even.'

The exclusion of refugees in places like Lebanon and Colombia from the formal financial system is linked to national and international policies. Syrians are affected by international laws that prohibit transactions between businesses in the United States and a person who has 'facilitated deceptive transactions for or on behalf of any person subject to United States sanctions on Syria', and the Association of Lebanese Banks instructed banks to limit their relations with Syrian clients and prohibit \$USD transactions through Syrian accounts (Domat, 2016; Gordon *et al.*, 2018). Similar legislation on 'anti-money laundering' and 'countering the finance of terrorism' restrict the financial inclusion and digital livelihood opportunities of large numbers of refugees around the world (UNHCR, 2020). Without any power to transform the impact these regulations have on exclusive digital infrastructures, digital livelihoods are left with situational workarounds.

The structural problems Syrian refugees encounter in accessing digital labour platforms are well illustrated by a question a user posted in the community forum of Upwork. This Syrian lived in Lebanon and tried to verify

his account but had '2 issues': 'Syria is not listed in the dropdown menu when I try to select the ID issue country' and 'There is only one accepted, the passport, but I don't have that, I have birth certificate paper, I can't get the passport because of the war there. I hope you consider my situation, thank you' ('ID Verification Syria Is Not Listed', 2019, on the Upwork website).

Even those Syrians in Lebanon who were supported by social impact enterprises struggled to get paid for the work they did. One US-based enterprise offering online language services, which had refugee workers based in Lebanon, transferred payments to a local NGO, which then paid refugees in cash or by cheque. At one point, when this option was no longer feasible, the enterprise had to bring in some US\$30,000 in cash to get the money through. The workers had to pick up their pay in person, indicating the extent to which their digital inclusion requires constant intermediation to span structural holes in the network. They annotated images to train some of the world's most advanced machine learning algorithms, including for driverless cars, yet they couldn't even receive a single electronic transaction.

Many refugees beyond Lebanon have no access to mainstream financial services (UNHCR, n.d.). They therefore cannot independently take part in the internet economy. In places where mobile money and digital wallets are widespread and accessible to refugees, other problems persist. In Kenya and Uganda, many refugees struggle to access identification credentials, such as government-issued alien or refugee IDs, movement passes, business licenses or civil registration documents, which can be required by financial service providers as part of the Know-Your-Customer (KYC) requirements and due diligence checks for serving clients (DCA and MSC, 2020: 9). Moreover, data services can be expensive and the introduction of 'mobile money taxes' in Uganda and elsewhere causes additional difficulties.

The Refugee Employment and Skills Initiative (RESI) in Kenya managed to intermediate between refugees and the platform Upwork, which agreed to accept refugee documents as a viable ID. Staff at the ITC, which co-managed RESI, told me in 2021 that they had around 250 refugee freelancers signed up on the platform. Yet, even the government-issued 'alien cards' were difficult to obtain because of a lengthy renewal process. Refugees in Dadaab were then issued proof of registration documents, referred to as 'manifest', which were accepted by Upwork only thanks to their collaboration with the RESI programme. As a situational and exceptional workaround that 'whitelisted' the refugees individually, such an approach is not scalable – which is one of the key problems of digital refugee livelihoods initiatives (Easton-Calabria, 2019).

Such intermediation temporarily builds bridges but simultaneously builds dependencies. As long as individual refugees require intermediation to access the basic functions of a web-based economy, their digital livelihoods rest on unstable linkages that do not close but merely circumvent the gaps that limit self-reliance to be realised on a larger scale. Refugees in the digital economy therefore remain ‘incubated’ to a large extent even when they are already earning an income.

## The Market Rules: Negotiating the Conditions and Value of Digital Work

While freelancers on digital labour platforms must often spend unpaid labour time to apply for gigs and jobs, most impact sourcing platforms – referring to a socially responsible variant of Business Process Outsourcing (BPO) – follow a different model: they acquire projects and then distribute tasks to workers. As these enterprises intermediate between supply and demand they need to negotiate the pricing of their services. The experience of Iva Gumnishka, the founder and CEO of Humans in the Loop, an AI data annotation enterprise supporting refugees, shows that negotiating fair prices is often not possible.

She said that hourly pricing of work is unfeasible and makes ‘clients suspicious that we might be overcharging them’, adding that pricing in annotation works per units instead. For example, five Euro cents for a ‘bonding box’ (a defined square image area) and eight to ten cents for a more complex ‘polygon’. She said: ‘We struggled to come up with a definitive price list. We are vulnerable if we say its five cents per box and then it ends up being a very complicated annotation.’ This is why they trial projects first to see how long it takes to deliver one unit. But one client sent them a sample that turned out to be far more time intensive than estimated, resulting in lower pay for workers. The pressure to meet clients at their preferred rates is due to steep competition in the digital labour market. Clients can easily outsource elsewhere. This problem was mirrored by Enrique Jose Garcia, the CEO of DignifAI, who said in an interview: ‘Low barriers to entry [in image annotation] means a lot of downward price pressure and the client has a lot of power. If we want to set a minimum base for the wage, there are other countries that have a much lower minimum wage.’

That value for labour defined by platforms and clients requires a recalibration of refugees’ expectations. Coordinators of the RESI programme talked about a difficulty to convince freelancers that they cannot define prices as they wished. ‘When we get jobs for them, they think we have the power to negotiate how much they are paid. It’s not the case,’ said one innovation coordinator at the ITC.

Social enterprises and aid organisations lack the power to reshape the conditions of work and its value, which implicitly promotes the conditions imposed by the market as conditions that must be acceptable to refugee workers.

Many providers of digital refugee livelihoods are also in a financially vulnerable position that depends on market dynamics. The platform LevelApp, launched by the non-profit Refunite, used to have 28,000 registered users, sourcing projects in image annotation from companies such as Facebook and H&M. The work done by refugees and host community citizens in Uganda included projects that used CCTV cameras to understand purchasing behaviours in shops, or trained data for driverless cars. Alexander Bugge, Refunite’s Chief Operating Officer, said they vetted workers and picked those who were most able, while successfully completing annotations on four datasets was a precondition for being offered paid work. Successful workers, based on one example, could make around US\$1.4 an hour, he said. But just when they were ready to scale the platform, the COVID-19 pandemic resulted in the loss of their corporate partners. What was left were a mere few hundred tasks to keep some workers afloat. This experience underlines the fragility of digital livelihoods generation that depends on dynamics in the market. LevelApp somewhat depended on the value proposition of being a social impact-oriented platform that helps Ugandans and refugees to make a livelihood. But to stay competitive, they also had to benchmark their rates against some of the main competitors, including Amazon’s MTurk. ‘We were cheaper,’ said Bugge.

Digital refugee livelihoods remain heavily dependent on the conditions and values defined by the digital labour market. To be sure, these actors offer training; they support workers in getting started, and they have their best interests at heart. At the same time, to remain competitive they must be cheap and effective, and must prioritise competitive talent over the inclusion of all.

## Conclusion: From Intermediation to Transformation

This article critically analysed the role of digital livelihoods through acts of intermediation and brokerage across gaps in the network between refugees and a web-based digital economy. These gaps include barriers to internet connectivity and skills mismatch, as well as exclusion from financial services and a lack of recognised digital identification. The interventions by aid organisations, enterprises and refugees themselves illustrate specific functions that are key to the feasibility of digital refugee livelihoods, such as connecting, incubating, as



well as aiming to negotiate the conditions and value of work. While efforts to improve refugees' digital access and inclusion have often been successful, far less has been achieved when it comes to the problems that follow such access, including exclusive policies and precarious working conditions.

The benefits of ICTs are unevenly distributed in developing countries and among marginalised populations (Avgerou, 2010). These divides do not only limit digital access but include 'second-level' digital divides that are not remedied through access because many 'gaps persist' and 'may be amplified, even after the initial access challenges might seem to be addressed' (Hargittai, 2002; Caribou Digital, 2015: 6). This is significant for digital refugee livelihoods: not only does the internet economy itself cultivate inequalities, barriers and risks, it also deepens forms of marginalisation that already affect forcibly displaced people, including economic precarity, financial exclusion, problems with identification and their relegation into low-skill and low-pay sectors of the informal economy.

Actors facilitating digital livelihoods currently lack a capacity to transform key layers of exclusion and marginalisation in a digitised world of work. Intermediation and brokerage can find ways around gaps but their underlying structure remains in place, offering new ways to circumvent problems but not to 'resolve the challenges of integrating precarious populations into national and global economic circuits' (Meagher, 2021: 738). Building on recent critical analysis of the deepening entanglement between refugee self-reliance and digital markets (Easton-Calabria, 2022), we can see that digital refugee livelihoods effectively inscribe key features of the internet economy into the principles of aid. In the process, the internet economy transforms refugee-serving aid far more than such aid can change the structures, conditions and values it determines. The field of digital refugee livelihoods therefore operates with a power deficit vis-à-vis the internet economy, which is concerning at a time when many refugee-serving agencies develop or implement digital programmes.

Digital livelihoods should aim at generating self-reliance that is grounded in basic protections and human rights, including the right to decent work, because it otherwise risks being defined by economic insecurity, exploitation and marginalisation (Field *et al.*, 2020; Gray Meral, 2020; Skran and Easton-Calabria, 2020). Achieving this will require principles, regulations and institutions that can press for change and bind policymakers and the platform economy to fair conditions and more inclusive regulations. Current efforts to include refugees in the internet economy must be paired with wider struggles for a more inclusive and fair digital economy.

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