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### Online work as humanitarian relief

### Citation for published version:

Hackl, A & Najdi, W 2023, 'Online work as humanitarian relief: The promise and limitations of digital livelihoods for Syrian refugees and Lebanese youth in times of crisis', Environment and Planning A (EPA), pp. 1-17. https://doi.org/10.1177/0308518X231184470

### **Digital Object Identifier (DOI):**

10.1177/0308518X231184470

#### Link:

Link to publication record in Edinburgh Research Explorer

**Document Version:** Publisher's PDF, also known as Version of record

Published In: Environment and Planning A (EPA)

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**Original Article** 

 ${\sf A}$  Economy and Space

Online work as humanitarian relief? The promise and limitations of digital livelihoods for Syrian refugees and Lebanese youth during times of crisis EPA: Economy and Space 1-17 © The Author(s) 2023 Control Co

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#### Abstract

The global spread of a web-based digital economy raises questions about its potential as a lifeline to people affected by severe economic and humanitarian crises. As local markets crumble and unemployment rises, online freelance work offers a seemingly accessible source of income that is independent of the constraints of local markets and national regulations. This article scrutinizes this promise against the backdrop of multiple evolving crises in Lebanon, asking to what extent a transnational digital economy can serve crisis-affected populations, including refugees, as a secure source of income and work. The research is based on interviews and surveys with Syrian refugees and host community members in Lebanon, who participated in digital skills training programmes and worked as digital freelancers for Social Impact Platforms and Enterprises. Their experience shows how the impact of Lebanon's crises undermined the feasibility of web-based digital work precisely at a time when they needed it most. Syrian refugees in Lebanon are affected by particular layers of regulatory restriction, including their exclusion from digital platforms, skills training programmes, and the financial system. As these layers of exclusion intersect with the precarity of selfemployed digital jobs and a severe economic crisis, Syrians' displacement in Lebanon is reconfigured into a digital space of exile within a transnational digital economy. Viewed from this perspective, the digital economy fails to live up to its inclusive promise and fails to transcend the restrictive regulations, economic instability, and precarity that characterizes crisis-affected states and populations.

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#### Keywords

Digital economy, economic crisis, digital labour, Lebanon, refugees

#### Introduction

At a time of deepening economic crisis in Lebanon, the initiative 'I Will Survive' launched a virtual event in 2020 to support young people to make money online. Speakers presented e-commerce and online freelancing as 'easy tools' that would allow participants to 'start making money tonight'. One speaker, a successful online freelancer based in the Gaza Strip, Palestine, said that 'all you need to become a successful freelancer is a technical skill, motivation, English skills, a laptop, an email, fast internet connection, and a credit card'. This optimism was soon met by questions from participants that reflected a different reality, such as those asking how they can make money online without a bank account and with payment services like PayPal being unavailable in Lebanon. Then the online event was cut short by one of the many electricity outages that were a daily occurrence, disconnecting most attendees from the internet, and adding further doubt about their ability to access the ostensibly boundless digital opportunities at a time of economic crisis and infrastructural collapse.

By 2021 Lebanon was widely categorized as a humanitarian emergency, rooted in multiple interrelated crises that have included its hosting of an estimated 1.5 million Syrian refugees, the impact of the COVID-19 pandemic, a financial crisis, and the Beirut port explosion in 2020. As the local economy crumbled and unemployment soared, large numbers of Lebanese emigrated but many of those who remained increasingly looked to online freelance work as an alternative. Soon campaigns and platforms emerged that called on the Lebanese diaspora and employers abroad to outsource work to Lebanese in need, while aid-funded initiatives promoted online freelancing and digital skills training as a new form of humanitarian relief for crisis-affected people that can contribute to refugees' economic self-reliance (Easton-Calabria and Hackl, 2023).

These developments took place against the backdrop of a wider global transformation in which workers from low- and middle-income countries (LMICs) became the dominant labour force in a transnational platform economy where work is largely outsourced by businesses in the global North (Graham et al., 2018; ILO, 2021a: 44). This increase in workers from the global South happened alongside a rise in platform workers in the global North, albeit at a slower pace (Online Labour Index, 2023; Stephany et al., 2021). Globally, the number of such digital labour platforms increased fivefold between 2010 and 2020 (ILO, 2021a).

Lebanon's share of the global freelance workforce on major digital labour platforms was at 0.7% between 2017 and 2018 – not insignificant for the small country – but this collapsed to a mere 0.07 by 2023 (Online Labour Index, 2023). This sharp drop, which may have been impacted by a disabling economic crisis and resulting difficulties to receive international payments, points at a paradoxical situation: That web-based work became increasingly unfeasible for people in Lebanon precisely when they would need it most. People in Lebanon, and even more so the refugees among them, became outcasts in a planetary digital labour market, which has offered important income opportunities for workers at global economic margins in many other places, despite a lack of decent working conditions (Anwar and Graham, 2020; ILO, 2021a).

There is currently a lack of understanding about the potential role the digital economy can play for people who are affected by severe humanitarian and economic crisis. Against this backdrop, we ask to what extent a transnational digital economy can serve crisis-affected populations and refugees as a secure source of income and work. As the host of the highest number of refugees per-capita in the world, Lebanon offers important answers to this question, not least because it reveals the particular opportunities and limitations the digital economy offers for forcibly displaced people alongside other crisis-affected populations.

Digital labour platforms include online web-based platforms and location-based on-demand platforms (ILO, 2021a: 18). While location-based platforms, such as app-based delivery services, are concentrated in urban areas within local markets, online web-based platforms are perceived to transcend the constraints of the local. Their potential for development has increased the significance of corporate social responsibility in the global outsourcing industry (Nicholson et al., 2016). Such impact sourcing outsources work to people in LMICs and to those affected by different kinds of marginalization, while providing career development opportunities and digital skills training to people with limited prospects for formal employment (GISC). A range of social impact platforms and enterprises (SIPEs), as we call them, have continued this wider trend, encompassing smaller digital labour platforms and digital social enterprises serving marginalized people such as refugees with training and jobs. Our research of these initiatives and their beneficiaries explores digital access and digital skills alongside the experience of digital work to account for the fact that digital divides not only determine who can access digital jobs but also who has the skills and capacity to benefit from such digital inclusion and its outcomes (Van Dijk, 2020).

While some SIPEs acquire outsourced sets of digital labour tasks from business clients, others use digital technology to mediate non-digital work, such as matching language conversation partners with remote learners. These impact-oriented digital solutions for refugees, which are predominantly in self-employed freelancing, intensify a long-standing marketization of refugee-serving aid in which entrepreneurship is seen as a pathway to self-reliance (Easton-Calabria, 2022). Aid organizations and the private sector have supported growing numbers of refugees and poor people to become involved in 'petty data work', with major aid organizations viewing microwork and other forms of digital labour 'as the latest saviour in a long line of measures promising to rescue economies of the Global South' (Jones, 2021: 4).

Microwork, which is only one of many types of work mediated by digital platforms, refers to the remote completion of basic information processing tasks, such as data entry, or image annotation and tagging, which are relatively automated, require minimal skills, offer low renumeration paid per task, and minimize the control of workers (Lehdonvirta, 2016). Online freelance work, on the other hand, generally involves more highly skilled work at higher levels of income (ILO, 2021a), On major freelancing platforms there is a prevalence of jobs with advanced skills, such as software development and technology (39.3%), creative and multimedia (20.8%), writing and translation (12.2%) and marketing and sales (11%). The leading category on a lower skill spectrum, 'clerical and data entry', makes up 14% of global demand (Stephany et al., 2021).

SIPEs and other initiatives focusing on digital livelihood provision in the humanitarian context have tapped into jobs at both ends of this skill spectrum. Together with digital skills training, digital jobs are promoted as a powerful tool to enhance economic growth and have been framed as a potential fast track for refugees and marginalized populations to access employment (Rushworth and Hackl, 2021; World Bank, 2019). This is in no small part because the demand for online freelance work has been growing steadily at a time when the demand for jobs plummeted in many national economies: in early 2021, some 90% more projects were demanded via online freelance platforms than in mid-2016 (Stephany et al., 2021).

#### Freelance work as an opportunity for crisis-affected Lebanon?

The disastrous impact of multiple crises in Lebanon has increased the need for alternative income opportunities in the population: some 56.6% of the total working-age population were outside the labour force in 2022, with an overall informality rate in the labour market of 62.4% (ILO and CAS, 2022), rising to 95% among vulnerable Syrian refugees (ILO, 2021b: 8–10). The crisis eroded ICT infrastructures and slowed efforts to advance digitalization: Lebanon's digital transformation strategy 2020–2030, updated in 2022 to account for the impact of the crisis, acknowledges the collapse of infrastructure and the shrinking of technology capabilities (OMSAR, 2022: 9). It refers to a lack of digital skills and 'outdated laws and regulations', while stating that 'closing the digital divide starts with increasing physical access through ICT infrastructure', and advocating for 'universal access' and a 'whole-of-society' approach (OMSAR, 2022: 32). Surprisingly, in light of this commitment to inclusiveness, the strategy does not mention refugees despite Lebanon being the highest per-capita refugee-hosting country in the world.

This gap has been filled by aid organizations and SIPEs that have trained refugees in digital skills and connected them to freelance work opportunities. Admittedly, crisis-affected Lebanon poses one of the most challenging environments for digital livelihoods (Hackl, 2023: 16). Yet refugees and other marginalized populations elsewhere have faced major challenges in seeking to access and benefit from the digital economy. These include access barriers due to regulatory restrictions affecting their right to work, access to bank accounts, and their ability to register SIM cards without recognized IDs, as well as limited internet connectivity, low affordability of devices and data plans, and a wide range of digital risks involving scams, cybercrimes, and online harm (Hackl, 2023; Martin, 2021; UNHCR, 2022).

The inclusion of refugees and migrants into precarious digital jobs further deepens the informality and insecurity that have long determined their work lives in low-paid precarious jobs (Floros and Jørgensen, 2020). Despite offering accessible income opportunities that can circumvent barriers to entering formal local employment, this 'platformization' of low-wage migratory labour markets (van Doorn and Vijay, 2021) continues their economic marginalization and entails frequent exploitation and insecurity (Hackl, 2023; Poell et al., 2019).

As the platformization of livelihood provision intersects with a protracted economic crisis and the marginality of refugees, they come to inhabit a space of digital exile that is defined by *categorical exclusion* and *precarious inclusion*: such exclusion is categorical because many of the barriers that Syrian refugees in Lebanon face, as they seek to access digital jobs, are linked to their status as forcibly displaced people and their identity as Syrians; at the same time, their inclusion into the digital economy, if it succeeds at all, is precarious and insecure in ways that deepens some of the risks and vulnerabilities people in crisis-affected context experience.

In the following, we will see how a severe economic crisis has worsened the impact of such digital exclusion and further deepened the precarity and insecurity of digital jobs among refugees, while also undermining the feasibility of digital jobs and livelihoods for other crisis-affected people. Their forced displacement as Syrians in Lebanon – who are subject to specific forms of regulatory restriction and digital exclusion – becomes implicated in the 'planetary geography of digital production' (Hackl, 2022: 111): the marginality of exiles living in a restrictive host country expands through a process of digital exiling on a planetary scale.

#### Article overview

After introducing the methodology, the first section of the article focuses on digital skills training and looks at the barriers to education and upskilling that affect Syrian refugees in Lebanon and their capacity to access digital jobs. This is followed by an analysis of how the wider impact of multiple crises in Lebanon increased economic vulnerabilities in the population and undermined the feasibility of online freelancing. We then outline the specific forms of exclusion and marginalization that affect Syrian refugees' capacity to benefit from the digital economy, including their exclusion from digital skills trainings, digital platforms, and work opportunities, alongside their financial exclusion.

### Methodology

The research behind this article was jointly conducted by the two authors between July 2019 and March 2021. After 3 weeks of field research in Lebanon in 2019, fieldwork starting in March 2020

was cut short due to COVID-19 lockdown measures. Although one of the authors remained in Beirut, the impact of the pandemic shifted the research methods online, including remote interviews and surveys. At that time, we, the authors, had already identified key initiatives in the field of digital livelihoods in Lebanon and selected those that served Syrian refugees alongside other marginalized youth. These included the training programmes of the Digital Opportunity Trust (DOT) in Lebanon, the Digital Skills Training (DST) at the American University of Beirut, and the social inclusion-driven programming school Codi. Aiming to follow the journey from learning to earning, we selected SIPEs that facilitated online income opportunities for some of the graduates of these courses. These included the impact sourcing platform Bridge, Outsource, Transform (BOT), which is linked to DOT and UNICEF, as well as Taqadam, which primarily offered data work in image annotation. The overall focus was put on the Syrian refugee population, alongside Lebanese citizens, because they represent the large majority of refugees in Lebanon and have been the explicit target of most initiatives we encountered.

#### Interviews

A total number of 63 semi-structured interviews were conducted with Syrian refugees and Lebanese citizens who participated in DST or worked online. Out of these, 32 were men and 31 were women, 26 were Syrian and 37 Lebanese. Interviewees were based in a variety of regions, including Beirut, Tripoli, the Bekaa Valley, and Sidon. Interview questions focused, among other areas, on the individuals' backgrounds, the barriers they faced in finding work locally and online, the impact training courses had on their job prospects, their experience of working online, and the role of online income opportunities for their economic survival during times of crisis. An additional 43 interviews were conducted with experts, including at training programmes, aid organizations, and the private sector. The authors further participated in several in-person and online events, including in digital skills training sessions in Beirut. These and other social interactions produced complementary data from conversations and insights outside of formal interviews.

#### Online surveys

The interviews were complemented by online surveys, which included a combination of structured and open-ended questions designed by the authors and distributed in collaboration with digital skills training programmes and SIPEs. Target populations for the surveys were selected because they participated in training programmes and/or worked for one of these enterprises. Overall, we received responses from 113 workers active across three SIPEs, two of which primarily offered work in data services and image annotation, while the third, Natakallam, offered online language services. The survey with the image annotation platform Taqadam in July 2020 yielded responses from 26 Lebanese and four Syrian workers, most of whom simultaneously worked for BOT; at Natakallam, 83 freelancers responded in June 2020, the majority<sup>1</sup> of which were forcibly displaced people from a wider range of countries and 43% were Syrians; 15 of the respondents in this global survey were based in Lebanon (seven of which self-identified as Syrian). Surveys with training graduates yielded 31 respondents at DST (13 Syrian and 18 Lebanese; 11 men and 20 women), and only six Lebanese respondents at the programming school Codi, which primarily targeted local unemployed youth.

#### Limitations

The research rests primarily on the qualitative data produced through interviews and field research, while the surveys offer a complimentary set of data that is not representative in and of itself. The individual surveys were self-contained, the number of responses unequal, and although each featured similar questions, the specificity of each type of platform required modifications. The surveys were therefore analysed separately. Common survey questions for graduates from training

programmes covered the following aspects, among others: nationality, refugee status, and gender; levels of education; employment and economic situation; the extent to which respondents benefitted from the programmes and applied their skills; the impact of Lebanon's crises on their livelihoods, as well as barriers in accessing digital work. Common questions in surveys of active workers at enterprises or platforms also covered aspects such as education and income levels; positive and negative experiences associated with their work; the role of online work for their economic situation and the impact of Lebanon's crisis; and the main barriers for making a livelihood online.

#### Bridging the gap? Digital skills training and the limits of success

Digital skills training and formal education are foundational enablers of people's access to work at a time of digitalization, but persistent inequalities in access to education contribute to a digital skills gap. Students without tertiary education are less likely to have the skills, language proficiency, and technological knowledge required to secure remote work or succeed as freelancers on labour platforms: Some 60% of workers on global web-based labour platforms are highly educated with university degrees, which rises to 73% among workers in developing countries (ILO, 2021a: 141). The overall majority of workers on the SIPEs we surveyed had attended some university or college: 77% of workers at Taqadam had a graduate university degree while the remaining 23% had an undergraduate degree or currently studied towards it; at Natakallam, 53% of the globally surveyed worker population had a Bachelor degree and another 19% had a graduate degree.

Graduates of digital skills training programmes who had not yet reached these educational levels are disadvantaged, which was further worsened by how the economic crisis affected their ability to continue education. Abir, a Lebanese graduate of the DST programme with the American University of Beirut, did not complete her bachelor's degree because she could not afford the fees. As many households lost their income during the crisis, they lost their ability to send their children to schools (Dara, 2020). Fewer students entered universities and many dropped out because the devaluation of the Lebanese currency reduced their capacity to pay (El Ghali, 2021).

The situation was worse for Syrian refugees, few of whom could access higher education or even continue primary and secondary school in Lebanon (El Ghali and Alameddine, 2019). Manar, a Syrian refugee who came to Lebanon with her family in 2013, did not enrol at a university until 2016, saying that she 'lost three years'; by 2020, she studied but could not register for some courses, explaining that 'it depends if we have enough money that semester or not'. Apart from one short project with an outsourcing platform, she did not find work despite digital skills training and regularly screening Whatsapp groups for freelancing opportunities. Another Syrian refugee, Hussein, said that when he came to Lebanon, he could not enrol at university because 'the process needs a lot of papers and documents, as well as a valid legal residency, which I do not have ... it also costs a lot of money'. These difficulties in accessing quality education put young refugees at a significant disadvantage in a highly competitive digital labour market.

#### Digital skills for digital jobs?

Digital skills programmes aim to fill the technical knowledge gap left behind by a lack of ICT-readiness in schooling and university education, providing youths with courses that range from basic digital literacy to more advanced skills, often alongside English language and soft skills training. While programmes covered in this research did not promise students jobs, they all aimed to connect graduates to the digital labour market because local opportunities were increasingly scarce.

At the same time, the restrictive policies for refugees in Lebanon, coupled with an economic crisis that affected all people in Lebanon, undermined students' chances of success. A survey

among 542 Syrian and Lebanese DST participants in 2019, who had participated in trainings during the preceding 12 months, showed that only 13% were working (Shibli et al., 2021: 32). As the graduate Hussein said: 'What I hoped for is that ... we would be connected to opportunities, or those who had high grades and graduated on the top of their class would be provided with jobs. But that did not happen. We learned the skills perfectly but then we were left on our own.' Syrian refugee graduates of digital skills programmes did not feel ready to advance independently and felt like they were miles away from being competitive as freelancers.

Mohammad, a 29-year-old Syrian who studied psychology and took part in several cycles of the DST programme from 2018 onwards, said in March 2021 that the main reason for joining 'was that I did not know how to use a computer at all (...) I started from zero'. He added that 3-months training courses were not enough to learn programming. Asked about whether he considered freelancing on platforms as a way out of joblessness, he said: 'I do not know what online freelancing is. (...) even if I knew about it, I do not have the adequate skills to pursue this type of work.'

Many Syrian training participants, whose digital literacy was often low, to begin with, were unlikely to access digital jobs after several months of skills training. Another barrier that affected Syrian training graduates was a lack of English language skills: According to the Syrian Mohammad, language 'is the biggest obstacle anyone could face, as all programming languages require knowledge of English. Otherwise, you would not be able to improve your skills. This limits my chances a lot'. Overall, digital skills courses appeared to be insufficient preparation for accessing digital income opportunities without ongoing support. As one graduate of a training programme said, the courses were telling her 'a story but not the end of it'. She added: 'When we were faced with the labour market, we saw how much we were lacking'.

Initially, many training participants were highly motivated. The Syrian participant Rabah said he joined the training after losing his job: 'I was very excited to sign up because I wanted to make a shift in my life and start my own work (...) I felt like my life is about to change, like I have been offered a great chance to shift my life around and succeed. I felt like I finally found what I have been looking for'. Eventually he was 'devastated', saying: 'After the trainings, I learned more skills but what I learned, and what I know now, is not enough. Any child nowadays, with a laptop at home, knows as much as I know.' When he applied for a remote job as a freelance web designer for a company in Qatar he was rejected outright, but asked if he could do an unpaid internship instead. 'They said my skills do not even allow me to do an internship with them.' A lack of access to digital devices and affordable internet connectivity poses another barrier to upskilling and work. Rabah – as many other Syrian participants in the programme – did not own a computer and did not have internet at home.

The situation was somewhat different for well-educated Lebanese students of long intensive programmes, such as the 6-months web development track at the Codi programming school, which focuses on supporting unemployed youth. According to Codi's employability tracking system, 80%–90% of their graduates found full-time work after graduation, either in Lebanon or online and remotely. As Laura, a communications manager at Codi, pointed out in an interview, growing numbers of graduates were increasingly pushed to seek online freelance work because of job scarcity in Lebanon's economic crisis. 'This is ideal as it helps bring fresh dollars into the country', she said. However, the intensifying crisis had also made cashing out such money more difficult, especially for Syrian refugees without back accounts.

#### The limitations of digital livelihoods during times of economic crisis

The economic crisis in Lebanon complicated accessing digital work further and deepened the precarity and risks workers faced. The impact of the crisis on digital work worsened the reliability of internet connectivity and its affordability, intensified financial exclusion due to capital controls and currency devaluation, and deepened economic vulnerabilities. While the crisis worsened the particular challenges facing Syrian refugees, the capacity of other people in Lebanon to make a digital livelihood also became increasingly restricted.

#### Infrastructural collapse and disconnection

The impact of Lebanon's crises has contributed to the collapse of ICT infrastructures (OMSAR, 2022), worsened chronic electricity outages and disrupting fixed internet connectivity, while leading to sharp increases in the cost of mobile connectivity after changes to tariffs in 2022 (Houssari, 2022). Some connectivity barriers affected refugees disproportionally, as they are among the most economically vulnerable and often live in areas with low internet connectivity, such as Akkar and Baalbek-Hermel (Dara, 2020).

Syrian and Lebanese interviewees spoke of how increasingly unreliable connectivity undermined their ability to make a digital livelihood, posing financial and reputational risks if their work could not be completed at deadlines. Rawaa, a Syrian DST graduate, said: 'I used to scream and curse all the time. I fought every day with my internet provider. I had deadlines and submission dates, and the internet would just cut off. It drove me crazy. When that happened, I had to work at night to make up for the lost hours'. Maham, a Lebanese woman working with the impact sourcing platform BOT, said: 'During the time I was working with BOT, the internet connection was fine, but the problem was the power cuts. Even the private generator turns off because it cannot provide electricity for that long. So, there are like four hours per day, sometimes more, where we do not have any electricity or internet. During this time, I could not work.'

Adding to connectivity problems was that currency devaluation and inflation made imported electronic goods highly expensive, affecting the affordability of computers. One freelancer, Souad, a Lebanese graduate of Codi, said: 'My laptop is very old, and it is very challenging for me to use it, especially that I take on different projects at the same time. However, buying a new one is not an option right now because of the economic crisis. I just have to work with it.'

#### Digital payments, currency devaluation, capital controls

Accessing foreign currency from a digital labour market that is unaffected by local economic dynamics would in theory be a major benefit of remote and online work in Lebanon and other crisis-affected countries. In Venezuela, for example, digital platforms can offer some workers with the right resources, skills, and capital a way to withstand economic disruption, but this survival strategy was undermined by sanctions and regulations affecting payments and access to platforms (Johnston, 2022).

The potential of online and remote work as a relief strategy in crisis certainly inspired hopes in Lebanon. Mahmoud, a Lebanese worker with the platform BOT, said in August 2020 that the lack of local job opportunities under the impact of overlapping crises made him 'look for opportunities abroad'. However, from late 2019 onwards, Lebanese banks locked depositors out of their dollar accounts and blocked transfers abroad. Since then, banks have imposed varying limits on the number of dollars any depositor can withdraw (Reuters, 2021).

Souad, a Palestinian Lebanese graduate of Codi, who worked as a freelancer for companies in the UK, said in November 2020, 'when the financial crisis started, our salaries got stuck in the bank because of the restrictions on dollar withdrawal'. However, she added that she changed bank and managed to open a fresh US-dollar account with another bank to receive her freelance payments, although she lost all her savings locked into the previous account. 'I am the only one working in

my family now. So, I am the main provider. I am managing well because I get paid in USD but sometimes it gets really stressful'.

Bank accounts in USD that existed prior to the crisis' emergence in 2019 were initially inaccessible and have been subjected to withdrawal limits and conversion rates below the market rate, while those opened afterwards are commonly referred to as 'fresh dollar' accounts and do not face these limitations. In September 2022, the Lebanese pound traded beyond 28,000 against the dollar, and in March 2023, already for 140,000, representing a loss of 98% of its value since 2019; official rates provided by the Central Bank's exchange platform have been adjusted continuously but have been lower than the informal market rate (Reuters, 2023). These gradual increases of the official rate, which dramatically devaluated the pound in an effort to control the spiralling market rate, further drove up inflation of food items, utility bills, and other essential goods (AP, 2023).

The Lebanese DST graduate Omar found that his long-standing problem to get paid for online freelancing worsened under the crisis, to the point that 'it is impossible to get paid'. He and other online workers had to find informal workarounds, such as using other people's bank accounts or storing money in an e-wallet. However, in March 2020, as the economic crisis worsened, the experienced programmer Harout from Syria lamented that his workaround of getting paid through a cousin's account was no longer acceptable to his client. Unable to open a USD account, as was the case for most Syrians in Lebanon at the time, he was left with the only option of Western Union cash transfers that incurred a sizeable fee and unfavourable conversion rates.

#### The devaluation of already low pay

The average monthly income Syrian and Lebanese workers at the SIPEs Taqadam and BOT, who shared a pool of freelancers at the time, estimated for themselves was around US\$270 at an average 35 h of work per week. The Lebanese freelancer Angy, who joined BOT after finishing digital skills training courses, had worked on seven projects by July 2020, one of them commissioned by an insurance company that took between three and four months. 'They gave us pictures of car accidents and a copy of the driving license of the person involved in the accident and we would have to fill the required information by the insurance company using the driver's license', she explained. For 8–9 hours of work a day on this project across four months, she made US\$900, which was paid out in Lebanese pounds at a rate far below the market rate.

Miriam, another Lebanese freelancer at BOT, worked on projects checking Excel sheets for errors that took between 2 and 3 months, for which she was paid around US\$550 in total. These already low levels of pay were further devalued by the capital controls that enforced conversion rates below the market value. For another project Miriam did in summer 2020, spanning between 40 and 45 days of work, she got paid 1,800,000 LBP, which converted to around US \$470 at the time. By March 2023, this would have been worth as little as US\$13.

By any standards, the income these self-employed digital workers reported would have been low even compared to the old official monthly minimum wage of 675,000 LBP, which equalled around US\$450 at the officially pegged currency conversion rate before the crisis, but under the impact of devaluation, Lebanon's real minimum wage became one of the lowest in the world worth around US\$24 (Asharq Alawsat, 2021).

A devalued local currency, soaring inflation, and barriers faced by those without USD accounts, made online freelancing less and less feasible as the crisis intensified. Mahmoud, a Lebanese graduate of the programming school Codi, said in April 2021: 'I am barely making ends meet with these small freelance projects that I manage to get. I can barely cover my own expenses. If the LBP rate was still as before, at 1500 LBP, I would be able to support my family. But at this rate, there's no way I can do that'.

#### Increased levels of vulnerability

Both Lebanese and Syrians suffered from increased levels of economic vulnerability as a result of the financial and economic crisis. One interviewee, the Syrian graduate of the DST programme Hussein, said about the impact of the crisis on his livelihood:

'My situation was bad even before the economic crisis and corona [pandemic]. With this situation ... I have no words to be honest. If we had a bit of a chance to get by before, now we have nothing. I need to work anything ... just to be able to make ends meet. Now, if I even hear about a new training opportunity, I might not even have the chance to go because I cannot afford not to work anymore.'

The crisis not only made online work less feasible but also undermined their capacity to take part in skills development. Naem, a 29-year-old Syrian DST graduate, further underlined the severity of the situation for Syrian households, saying, '*Alhamdullilah* we are living each day on its own. Trying to survive.'

Findings from our surveys show high levels of economic vulnerability driven by multiple crises. In the survey of 83 freelancers working with the language service provider Natakallam, 33% of the 15 Lebanon-based workers, who were asked about the impact of the economic crisis on their livelihood, stated they had to borrow money from family members or friends. Our survey of graduates of the DST programme conducted in 2021, with 13 Syrian and 16 Lebanese respondents, underlines this difficult economic situation: overall, 32% stated they had accumulated debts at a grocery store, while 42% had to borrow money from friends or family, and 45% had to sell personal items for money to survive economically. Four respondents said they were struggling to pay for an internet connection. Overall, the economic vulnerability was higher among Syrian than Lebanese; 54% of Syrians had to borrow money from friends or family compared to 31% of Lebanese; 54% of Syrians accumulated debt at a grocery compared with 19% of Lebanese; and all of the four respondents who struggled to pay for internet connection were Syrian.

Against this backdrop, the crisis increased the precarity and risks associated with insecure digital work, as the investments already vulnerable refugees made by participating in digital trainings did not lead to jobs. Rabah, a graduate of DST, said in March 2021: 'After I lost my job and joined the trainings, I started selling my furniture to make ends meet. I was okay making this sacrifice because I thought that by the end of the trainings, I will be able to start working and make up all what I had lost.'

The increased vulnerability under the impact of crisis raises concerns about the tendency of selfemployed platform work to be precarious, without sufficient social protections, and often demanding unpaid labour time and investments without secure returns – even if platforms can also 'provide stability in the presence of market collapse and the tools required to withstand periods of domestic economic turmoil' (Johnston, 2022: 166). As the local economy collapses, crisis-affected people may be willing to work for low rates that undercut prices in order to be competitive. This highlights how the intersection of a crisis with online freelance work can deepen the overall precarity and risks people face.

#### Benefitting despite the challenges

While the challenges and risks of digital livelihoods during times of crisis are significant, interviews and surveys among Syrian refugees and Lebanese workers also underlined the importance of such work for their economic survival. A survey of 30 freelancers working with Taqadam and BOT showed that online work was the only source of income for 80% of respondents, indicating its role as a lifeline. More than two-thirds considered their online work as 'extremely important' for their economic survival, with the rest seeing it at least as 'very important'. At Nakallam, 60% of

the 15 workers based in Lebanon noted that without their income from online work, they would not be able to pay for food, rent and basic services.

Being able to make money in foreign currency at a time of financial crisis was also a significant contribution for those Lebanese who held bank accounts in foreign currency, which was not usually possible for Syrians. Ashraf, a Lebanese graduate of a programme at Codi, talked about the significance of online income opportunities and payments in US-Dollars for his family at a time of crisis:

'My dad and my brother lost their jobs. So, I was super lucky that I got to start my job just in time to help my family. It really affected us financially because my dad was the main provider for the family and then he was no longer able to provide. My brother also, he was able to cover his own expenses but not anymore. The fact that I was getting paid in fresh dollars really helped especially with the devaluation of the Lebanese Lira. It compensated a bit.'

#### Digital exiles: Exclusion and marginality among Syrian refugees

A range of exclusive regulations and policies disproportionally affect Syrian refugees even if multiple crises impacted the wider population in Lebanon. These non-conducive regulations include refugees' restricted labour market access and their exclusion from digital skills training programmes, their restricted financial inclusion, and their exclusion from digital platforms.

#### Restricted access to work and digital upskilling

The hope for online freelancing to circumvent restrictive local laws resonates among Syrian refugees in Lebanon, who face highly limited access to formal work due to a range of regulations, sector-specific restrictions, and obstacles in obtaining work permits (Baroud and Zeidan, 2021). When skilled Syrian refugees apply for jobs in Lebanon, they often face discrimination similar to the experience of Hussein:

As a Syrian, if I want to look for work or apply for job opportunities, the first thing that the employer will ask for is my papers, my residency, and I do not have one. There are also priorities, employers would hire a Lebanese applicant for any vacancy before they consider a Syrian applicant. Also, they will always choose someone who has a university degree or has more experience, I have neither.

The hope that digital upskilling offers a fast lane to employment often fades quickly amidst the categorical exclusion of Syrian refugees from the labour market. Some 62% of surveyed Syrian graduates of the DST programme responded, 'because I am Syrian', to a survey question about the major barrier they faced in finding a job in Lebanon. Against this backdrop, online freelancing can appear as a more accessible income opportunity, in part because it is not regulated by the government and falls into a legal grey zone in Lebanon (Bayram, 2019).

Syrian refugees hoped to exploit this lack of regulation and perceived online freelancing as a form of work that is invisible to the authorities. This mirrors long-standing patterns of migrants and refugees facing a combination of precarity and invisibility in labour markets; and such 'worker invisibility' is also a core feature of platform work (Irani and Silberman, 2013). This is one example of how the platformization of refugee work deepens the economic marginalization forcibly displaced people already experience in a given national context, thereby transforming key aspects of their condition of exile into the transnational space the digital economy. The Syrian Harout, who used to work as a teacher and studied chemistry before being displaced to Lebanon, started freelancing remotely in 2019 for a company in Canada and another in Indonesia. Although lawyers told him that online freelance work is not explicitly illegal for

Syrians in Lebanon, he still kept this work invisible as far as possible, saying: 'On my LinkedIn, I don't mention these jobs for my own protection.'

Unfortunately, the promotion of such unregulated 'invisible' work by aid organizations suddenly became visible to the authorities at a time when the government cracked down on informal work among Syrian refugees. Efforts by the World Food Programme, which funded the DST programme, to obtain governmental endorsement of digital skills training and online work for displaced Syrians in Lebanon were unsuccessful, effectively triggering refugees' categorical exclusion from 2019 onwards (Shibli et al., 2021). This effectively excluded refugee participants from training programmes and the digital work opportunities that followed. The programmes of the Digital Opportunity Trust in Lebanon, for example, are linked to the social impact sourcing platform BOT, allowing successful training participants to access freelance work experience. But they, too, were forced to stop offering such work to Syrian refugees: 'BOT is bound by regulations that prohibit the employment of any non-Lebanese student', said Marianne Bitar Karam, DOT's country director and managing director of BOT, in an interview. She added that 'in the current situation, we cannot take an invoice from or pay a Syrian refugee'.

In a similar vein, a communications manager at the programming school Codi was unable to offer us any data on Syrian graduates, explaining that, 'we just have to be a bit careful with the non-Lebanese students to find a system to get them employed. We are trying to work with companies outside Lebanon who do not care about the nationality.' This emphasis on nationality underlines how Syrians are excluded from digital livelihoods based on their identity, due to restrictive regulations at the national level, while jobs offered from outside Lebanon are seen as a potential saviour.

#### Financial exclusion undermines digital livelihoods

The wider challenges for online freelancers in accessing financial services from Lebanon at a time of crisis are well illustrated by a thread on the community platform Reddit (2020): A Lebanese-Canadian software engineer writes about online freelancing on platforms such as Fiverr and Upwork and offers advice for Lebanese in crisis. Those replying to his well-intended initiative point out that the Israeli platform Fiverr is banned in Lebanon, while PayPal is not available, just as one of the few digital alternatives for payments, the e-wallet Payoneer, is blocked. Another user writes that 'we can't use credit cards [at the moment] and the transactions require USD which is non-existent at this point', with another adding 'that all these websites and payment methods are banned in Lebanon'.

This difficulty to access financial services affecting most people in Lebanon is worse for Syrian refugees due to their regulatory exclusion from bank accounts. In response to the question of what the main barriers to online work are for them in Lebanon, 78% of surveyed Syrian DST graduates listed a lack of access to bank accounts and bank cards as a major barrier, compared to 31% among Lebanese graduates. Among the 15 workers with Natakallam who were based in Lebanon, six out of the seven Syrians within this sample of 15 stated that not having access to bank accounts is a major barrier to working online, which was not the case among the Lebanese respondents (although 86% across both groups stated that they faced 'difficulties getting paid from online work').

As many other countries, Lebanon follows Know Your Customer (KYC) and Customer Due Diligence requirements, which require proof of IDs and often additional documentation such as proof of address and residency permits, for individuals to conduct financial transactions and open a bank account. Syrian refugees in Lebanon cannot usually meet these ID requirements (UNHCR, 2022: 51). Moreover, the Association of Lebanese Banks had instructed banks to limit their relations with Syrian clients and prohibit transactions in US dollars for Syrian-held accounts as early as 2011; and this exclusion is linked to sanctions that prohibit 'all transactions or dealings' with any person subject to US sanctions on Syria (Domat, 2016). These national and international laws effectively exile Syrian refugees from the financial space of a digital economy.

As the Syrian woman Naem, a DST graduate, said in response to the question of whether she considered working as an online freelancer:

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. Why would I do that if at the end I will hit a wall if I do not have a bank account? I would work and work and then for nothing ... If I had a bank account, I would have been more encouraged to pursue this.

Some of our research participants used workarounds, such as channelling payments through the accounts of family members or friends. Here the regulatory exclusion of refugees from financial services due to their inability to meet ID requirements, which also affects their access to SIM cards, forces them to use unsafe workarounds such as using fraudulent information through proxy bank accounts, SIM cards, or digital platform accounts registered on someone else's name (Cheesman and Hackl, 2023).

#### Exclusion from digital platforms

Syrian refugees in Lebanon face restrictions in accessing digital labour platforms, mostly because of the same KYC requirements and sanctions that limit their access to financial services. Most platforms require a government-issued ID and frequently demand additional proof of address and other documentation. Moreover, some nationalities, such as Syrians, face blanket exclusion, as 'some platforms stipulate in their terms of agreements that they do not permit registration of people from countries that are subject to sanctions' (ILO, 2021a: 93).

The exclusion that people of Syrian nationality encounter in trying to access platforms are further worsened for refugees, who often do not have valid passports. This is illustrated by experiences such as that of the user 'Hussein', who posted in the community forum of a major freelancing platform (Hackl, 2022: 99; Upwork, 2019):

Hello, I'm a Syrian but I live in Lebanon, currently I'm trying to verify my account and I have 2 issues: Syria is not listed in the dropdown menu when I try to select the ID issue country. There is only one accepted, the passport, but I don't have that I have a birth certificate paper, I can't get the passport because of the war there. I hope you consider my situation, thank you.

Syrian refugees' categorical exclusion from digital work, financial services, and platforms combine to relegate them into a digital space of restriction and marginality that mirrors in many ways their wider condition of being forcibly displaced in Lebanon: A space of digital exile in a planetary digital economy. As a concept, exile expresses the enduring aftermath of displacement in people's lives, which includes the impact of 'ongoing forms of confinement and restriction', including the 'identity-related processes by which people are bounded' (Hackl, 2021: 64–5). We have seen that much of what marginalizes and restricts Syrian refugees in Lebanon in relation to the digital economy is identity-related in this sense.

#### Conclusion

Lebanon's multiple crises have increased poverty, unemployment, and vulnerabilities in the population. They have also raised questions about whether online freelance work could offer an alternative source of income and jobs for those affected by a collapsing local economy. Our research shows how the impact of multiple crises not only increases the need for web-based income opportunities but also severely limits how digital jobs can support the people most in need.

Syrian refugees were affected by forms of digital exclusion and precarious inclusion that are closely related to their status as forcibly displaced people in Lebanon. Their experience exemplifies

how the condition of being forcibly displaced in Lebanon is reshaped into a condition of *digital exile*: exile both in the sense of being exiled, or excluded, from fundamental enablers of a transnational digital economy, and in the sense of existing as marginalized exiles within it. In spatial terms, such digital exile underscores how the social, economic, and political conditions of specific places, countries, and populations can come to 'inhabit' spaces of restriction and marginality within a planetary digital labour market (Graham and Ferrari, 2022; Hackl, 2022).

Just as the condition of forced displacement becomes imbricated in planetary digital markets, so too does an economic crisis on the national level reshape the character and experience of digital work for those affected by it. Paradoxically, the very economic crisis that makes online work so significant as a resource for survival also limits people's capacity to use it as a sustainable source of income. All of this challenges the idea that digital infrastructures can seamlessly integrate 'precarious populations into national and global economic circuits' (Meagher, 2021: 738). Even if Syrian refugees and other people in Lebanon are successfully incorporated into digital platform work, the precarity and marginality they encounter persists and is often deepened by the precarity of digital work. All of this fundamentally questions assumptions that underpin dominant ideas about digital divides and how they can be overcome in practice: that increased digital literacy and skills, alongside access to digital devices and internet connectivity, can unlock digital inclusion and empower individuals served by aid organizations to access online income opportunities.

The 'divides' that exclude refugees from digital livelihoods and make platform work so precarious for them are not in fact 'digital' and therefore cannot be resolved by 'digital' solutions alone. To a large extent, these inequalities are the result of national and international regulations and policies that govern refugees differently from others: Syrian refugees are excluded from digital jobs because they are excluded from financial services due to risk-adverse banking policies, discrimination, a lack of recognized identification documents, and political sanctions, which also excludes them from platforms; they are pushed into the precarious invisibility of online freelance work because of regulatory restrictions to their labour market access; and they lag behind in digital upskilling because their access to education is curtailed and disrupted.

Beyond the specific case of Syrian refugees, the experience of Lebanese citizens shows how the collapse of ICT infrastructures and the financial system under the impact of crisis, alongside currency devaluation and national capital controls, combine to undermine the feasibility of digital jobs while increasing precarity at work and exposure to risks. While some skilled workers in Lebanon succeeded in using online freelancing as a lifeline in times of crisis, the economic vulnerability and risks they experience are amplified in the process, as the precarity of self-employed digital work and the impact of an economic crisis come to reinforce each other.

#### **Declaration of conflicting interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

#### Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Economic and Social Research Council (UK), (grant number ES/S005757/1).

#### Note

 Due to the complexity and sensitivity of the matter, refugee status was not a question included in the survey, but Natakallam's primary focus has been to provide work for refugees, alongside other marginalized individuals, such as unemployed youth and internally displaced persons.

#### References

- Anwar MA and Graham M (2020) Hidden transcripts of the gig economy: Labour agency and the new art of resistance among African gig workers. *Environment and Planning A: Economy and Space* 52(7): 1269– 1291.
- AP (2023, 1 February) Lebanon sets new exchange rate, dramatically devalues pound. Associated Press. Available at: https://apnews.com/article/inflation-international-monetary-fund-beirut-lebanon-business-6f7fb7e8bfa93ca23e6caaf47a61f8d7.
- Asharq Alawsat (2021, February 26) Employees in Lebanon Earn among Lowest Salaries Worldwide. Asharq Alawsat Online. Available at: https://english.aawsat.com/home/article/2828886/employees-lebanon-earnamong-lowest-salaries-worldwide.
- Baroud M and Zeidan N (2021) Addressing challenges faced by Syrian refugees working in the informal economy: Case studies from Lebanon and Jordan. Issam Fares Institute for Public Policy and International Affairs, American University of Beirut. Available at: https://www.aub.edu.lb/ifi/Documents/publications/policy\_briefs/2020-20/20210101\_addressing\_challenges\_faced\_by\_syrian\_refugees\_brief.pdf.
- Bayram AS (2019) A world of limited possibilities: Refugee youth and job opportunities within the Lebanese law and market. Spark. Available at: https://spark.ngo/wp-content/uploads/2020/03/Annex-4-c-LMA\_A-World-of-Limited-Possibilities\_Lebanon.pdf.
- Cheesman M and Hackl A (2023) The identity issue: Digital risks of proxy IDs in Kenya's online economy, UNHCR innovation. Available at: https://medium.com/unhcr-innovation-service/the-identity-issue-digital-risks-of-proxy-ids-in-kenyas-digital-economy-52eec129ebea.
- Domat C (2016) Show me the money! No bank accounts for many Syrians in Lebanon. *Middle East Eye*. Available at: https://www.middleeasteye.net/features/show-me-money-no-bank-accounts-many-syrians-lebanon.
- Dara K (2020) Peripheries of Poverty: In an interview, Kawthar Dara discusses how regional disparities have added to Lebanon's fragility. M. Young, Carnegie Middle East Center. Available at: https://carnegie-mec. org/diwan/82804
- Easton-Calabria E (2022) *Refugees, Self-Reliance, Development: A Critical History*. Bristol: Bristol University Press.
- Easton-Calabria E and Hackl A (2023) Refugees in the digital economy: The future of work among the forcibly displaced. *Journal of Humanitarian Affairs* 4: 1–12.
- Floros K and Jørgensen MB (2020) Tracing the future of migrants' labour relations. Experiences of institutionalised migrant precarity in Denmark and Greece. *Political Geography* 77. DOI: 10.1016/ j.polgeo.2019.102120
- GISC. The Global Impact Sourcing Coalition (GISC), 'what is impact sourcing?' Available at: https://gisc.bsr.org.
- Graham M, Lehdonvirta V, Wood A, et al. (2018) Could online gig work drive development in lower-income countries? In: Hernan G and Alarcon A (eds) *The Future of Work in the Global South*. Ottawa: IDRC, 8–11.
- Graham M and Ferrari F (eds) (2022) Digital Work in the Planetary Market. Cambridge, MA: The MIT Press.
- El Ghali HA (2021) A financial crisis, then coronavirus. Lebanese universities could still thrive. *Al-Fanar Media*. Available at: https://www.al-fanarmedia.org/2020/03/a-financial-crisis-then-coronavirus-lebanese-universities-could-still-thrive/ (accessed 8 November 2021).
- El Ghali HA and Alameddine F (2019) Syrian refugee students in Lebanese higher education: Recognition of qualifications and beyond. Issam Fares Institute for Public Policy and International Affairs.
- Hackl A (2021) Towards decent work for young refugees and host communities in the digital platform economy in Africa: Kenya, Uganda, Egypt. Geneva: International Labour Organization. Available at: https://www.ilo.org/wcmsp5/groups/public/—ed\_emp/documents/publication/wcms\_816539.pdf.
- Hackl A (2022) Digital livelihoods in exile: Refugee work and the planetary digital labor market. In: Graham M and Ferrari F (eds) *Digital Work in the Planetary Market*. Cambridge, MA: MIT Press, 97–114.
- Hackl A (2023) Connecting without protecting: Intermediating the internet economy in digital livelihoods provision for refugees. *Journal of Humanitarian Affairs* 4(3): 13–21.
- Houssari N (2022) Concern in Lebanon as mobile data rates surge. *Arab News*, 1 July 2022. Available at: https://www.arabnews.com/node/2114931/middle-east.

- ILO (2021a) World Employment and Social Outlook: The Role of Digital Labour Platforms in Transforming the World of Work. Geneva: International Labour Organization.
- ILO (2021b) Assessing informality and vulnerability among disadvantaged groups in Lebanon: A survey of Lebanese, and Syrian and Palestinian refugees. Geneva: International Labour Organizaton. Available at: https://www.ilo.org/beirut/media-centre/news/WCMS\_818370/lang-en/index.htm.
- ILO and CAS (2022) Lebanon follow-up Labour Force Survey January 2022. Geneva and Beirut: Central Administration of Statistics of the Lebanese Republic and International Labour Organization. Available at: https://www.ilo.org/wcmsp5/groups/public/\_\_arabstates/\_\_ro-beirut/documents/publication/wcms\_848353.pdf.
- Irani LC and Silberman MS (2013) Turkopticon: Interrupting worker invisibility in Amazon Mechanical Turk. In: Proceedings of the SIGCHI conference on Humann factors in computing systems, pp.611–620.
- Johnston H (2022) In search of stability at a time of upheaval: Digital freelancing in Venezuela. In: Graham M and Ferrari F (eds) *Digital Work in the Planetary Market*. Cambridge, MA: MIT Press, 157–173.
- Jones P (2021) Work Without the Worker. London: Verso.
- Lehdonvirta V (2016) Algorithms that divide and unite: Delocalisation, identity and collective action in 'microwork'. In: Flecker J (eds) *Space, Place and Global Digital Work. Dynamics of Virtual Work.* London: Palgrave Macmillan. DOI: 10.1057/978-1-137-48087-3\_4.
- Martin A (2021) Connecting with confidence: Managing digital risks to refugee connectivity. UNHCR Innovation. Available at: https://www.unhcr.org/innovation/wp-content/uploads/2021/03/CWC-Managing-Digital-Risks-To-Refugee-Connectivity-Report.pdf.
- Meagher K (2021) Informality and the infrastructures of inclusion: An introduction. *Development and Change* 52(4): 729–755.
- Nicholson B, Babin R and Lacity MC (2016) Introduction. In: Nicholson B, Babin R and Lacity MC (eds) Socially Responsible Outsourcing. Technology, Work and Globalization. London: Palgrave Macmillan. https://doi-org.ezproxy.is.ed.ac.uk/10.1007/978-1-137-55729-2\_1.
- OMSAR (2022) Lebanon digital transformation: National strategy May 2022 update. Beirut: Republic of Lebanon Office of the Minister of State for Administrative Reform. Available at: https://omsar.gov.lb/ Assets/DT\_EN.pdf.
- Online Labour Index (2023) Online labour supply. Online Labour Observatory. Available at: http:// onlinelabourobservatory.org/oli-supply/ (accessed 24 May 2023).
- Poell T, Nieborg D and van Dijck J (2019) Platformisation. *Internet Policy Review* 8(4): 1–13. DOI: 10.14763/ 2019.4.1425. ISSN 2197-6775, Berlin: Alexander von Humboldt Institute for Internet and Society.
- Reddit (2020) Why not make money in Lebanon using online freelance job sites? *Reddit.com*, 14 June 2020. Available at: https://www.reddit.com/r/lebanon/comments/h8ojfm/why\_not\_make\_money\_in\_lebanon\_ using\_online/ (accessed 11 September 2022).
- Reuters (2021) Lebanon bank customers to regain access to up to \$800 a month. *Reuters.com*, June 4, 2021. Available at: https://www.reuters.com/world/middle-east/lebanon-bank-customers-regain-access-up-800month-2021-06-04/.
- Reuters (2023) Lebanon to sell unlimited US dollars to prop up collapsing pound. *Reuters.com*, March 21, 2023. Available at: https://www.reuters.com/markets/currencies/lebanon-sell-unlimited-us-dollars-prop-up-collapsing-pound-2023-03-21/.
- Rushworth P and Hackl A (2021) Writing code, decoding culture: Digital skills and the promise of a fast lane to decent work among refugees and migrants in Berlin. *Journal of Ethnic and Migration Studies* 48: 2642–2658.
- Shibli R, Kouzi S and Atherton El-Amine B (2021) Digital skills training in Lebanon: Reinforcing environment, resilience in a restrictive. In: Hackl A (eds) Digital Refugee Livelihoods and Decent Work: Towards Inclusion in a Fairer Digital Economy. Geneva: International Labour Organization, 28–37.
- Stephany F, Kässi O, Rani U, et al. (2021) Online Labour Index 2020: New ways to measure the world's remote freelancing market. *Big Data & Society* 8: 205395172110432.
- UNHCR (2022) Displaced and disconnected country reports: Legal access to mobile connectivity and digital financial services. Available at: https://www.unhcr.org/innovation/wp-content/uploads/2022/03/Displacedand-Disconnected-Country-Reports-ENGLISH.pdf.
- Upwork (2019) ID verification Syria is not listed. Upwork Community Forum, 5 January 2019. Available at: https://community.upwork.com/t5/New-to-Upwork/Re-ID-verification-Syria-is-not-listed/td-p/549148 (accessed 20 May 2021).

Van Dijk J (2020) The Digital Divide. Cambridge: Polity Press.

- van Doorn N and Vijay D (2021) Gig work as migrant work: The platformization of migration infrastructure. *Environment and Planning A: Economy and Space*: 0308518X2110650. DOI: 10.1177/0308518X211065049.
- World Bank (2019) Mashreq 2.0: Digital transformation for inclusive growth and jobs. World Bank Group. Available at: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/246561561495359944/mashreq-2-0-digital-transformation-for-inclusive-growth-and-jobs.