

6 Digital Livelihoods in Exile: Refugee Work and the Planetary Digital Labor Market

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The seemingly inclusive and accessible characteristics of digital platform work have inspired a new generation of social enterprises and international development initiatives that see it as a promising contribution to refugees' livelihoods. These initiatives include social enterprises that connect refugee workers to jobs through digital platforms, including in fields of work such as image annotation and language services. On a basic level, platform work can be seen as a form of self-employment that uses an online platform to match digital workers with buyers of work, thereby connecting supply and demand (de Groen et al. 2018). Such platforms have supplied transnational labor markets with individual workers who are excluded from formal employment and face unstable working conditions (Gregg and Andrijasevic 2019). There are now a growing number of work platforms and initiatives that focus on connecting some of the world's most marginalized populations, such as refugees, with an increasingly planetary-scale digital economy. As these efforts often need to circumvent barriers to digital access, they highlight important opportunities for inclusion in a digitized future of work. At the same time, this chapter will demonstrate forcibly displaced persons' ambivalent experience with platform work provides a unique perspective on the practical limitations of the idea that the digital economy is inclusive and a potentially powerful tool for economic development.

The emergence of a planetary digital labor market has been discussed as a possible contributor to economic development in marginalized regions of the world through providing access to work opportunities and alternative sources of income (Graham, Hjorth, and Lehdonvirta 2017). However, workers in developing countries are most affected by uneven Internet connectivity, time zone differences, language problems, a lack of security, and inadequate pay mechanisms (Robinson et al. 2020). In addition, the digital economy has further widened regional and gender divides, while digital labor platforms trigger fears of "nineteenth-century working practices and future generations of 'digital day labourers'" (ILO 2019, 18). As digital inequalities become more

ingrained and insidious, they threaten to leave those without resources ever further behind (Robinson et al. 2020). For example, digital economies have exacerbated economic divides and social inequality in Africa (Karar 2019). Some usage of digital technology, therefore, perpetuates a capitalist system that builds on alienated and exploited labor (Bilić, Primorac, and Valtýsson 2018).

This critique stands vis-à-vis evidence that digitalization has allowed many workers to access new labor markets, while also facilitating new kinds of access to their local market through digital media or platforms. Indeed, platform labor is often simultaneously a site of degradation and one of opportunity for those who have few viable alternatives (van Doorn, Ferrari, and Graham 2020). In supportive economic and policy environments where refugees have the right to work, such as in Germany, digital skills training programs have advanced their economic integration and social mobility, if only for a limited number of motivated individuals (Mason 2018). Digital labor platforms in developing countries are often highlighted positively as well because they provide an alternative source of livelihood amid a scarcity of other opportunities (Heeks 2017).

These benefits have engendered widespread hopes that *digital livelihoods*—including skills training and opportunities for digital work and entrepreneurship—will become a force of economic development among marginalized populations. As the image of digitally connected refugees captures the public imagination, Internet connectivity and mobile devices have become a focal point of refugee support (Latonero, Poole, and Berens 2018). The United Nations High Commissioner for Refugees (UNHCR) sees mobile and Internet technologies as potentially transforming the lives of refugees by improving security, protection, information access, and health services (Vernon, Deriche, and Eisenhauer 2016). Behind some of the expectations that digital inclusion can trigger social and economic change stand powerful assumptions and ideas promoted by a variety of actors in the private sector, in politics, and in international development practice. One of these ideas is that the Internet can benefit the world's poor “by removing frictions, barriers, and intermediaries that stand between producers of goods and services in the Global South and consumers of those things in the Global North” (Graham 2019, 267). Moreover, widespread techno-optimism suggests that the Internet allows anyone to work from practically anywhere, as long as they learn the skills and have a computer and an Internet connection (Kaurin 2020).

However, the Internet and its economic dimensions do not merely remove frictions but also contribute to new divides and forms of exclusion. Refugee status often comes with a lack of bank accounts and financial access, which is confounding at a time when electronic payments have replaced the cash transactions that long defined informal refugee economies. Moreover, poor refugees often struggle to afford data plans,

purchase hardware, or establish a safe place from which to work. Although digital economies undoubtedly have a connective quality that crosses boundaries, they have failed to fundamentally transform refugees' marginalized positions as underpaid informal workers with ambiguous legal statuses who struggle to make ends meet.

Digital Work and Migration

The study of digital platform work has not devoted much attention to the role of migrants or refugees, although migrant workers provide much of the labor power behind gig economy services (van Doorn, Ferrari, and Graham 2020, 2). Migrants tend to inhabit particular margins in formal and informal national economies. Platform labor often promises easy access and has therefore been popular among low-wage migrant workers, who have traditionally been excluded from standard employment relations. Van Doorn, Ferrari, and Graham (2020, 4–5) identify why this is the case, arguing that the onboarding process for work platforms is low-threshold and often resembles how many migrants have already experienced informal work. Digital platforms are further seen as lax with respect to their enforcement of formal requirements such as background checks or business licenses of freelancers. Moreover, the ability to work through platforms in English offers an additional inclusive potential, while some app-based platforms allow workers flexibility on cashing out money and offer them a degree of autonomy in deciding when to work or not. However, the inclusiveness of these jobs comes with a widespread reclassification of work as self-employment, which degrades labor standards.

We will see that the particular experiences of refugees mirror some of these aspects while contrasting others. The problems refugees encounter in trying to access platform work are well illustrated by a question the user Hussein posted in the community forum of Upwork, one of the world's largest freelancing platforms: "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."¹

This comment encapsulates some of the key challenges that refugees face in accessing platform work independently. More generally, it suggests that there is something distinctive about the relationship between the digital economy and the condition of being forcibly displaced from one's home country. I therefore ask: How does someone's exile from a homeland determine their marginal position vis-à-vis the planetary digital economy, and how does inclusion in this economy impact the experience of exile?

What does the case of digital refugee workers tell us about the materiality and embeddedness of digital work in the concrete social, economic, and political conditions that frame its production?

This chapter will answer these questions from the perspective of refugees working through three social impact work platforms that hire refugees. These platforms have the specific aim of supporting refugees in two types of digitally mediated home-based work—namely, remote language training and image annotations for datasets used in the training of artificial intelligence (AI). After a note on methods, I will provide a brief overview of the refugee workers' characteristics and the impact of the COVID-19 pandemic on their work. The subsequent sections will summarize the findings on barriers to digital access; on refugees' work experience on the three platforms; and on the wider conditions of their work, including payment levels, as well as the perceived benefits of online work. This is followed by a discussion of the mediating role of these social impact platforms between a planetary-scale labor market and marginalized refugee populations. The concluding section will return to the above conceptual questions about the relationship between the digital economy and the experienced condition of forced displacement.

Methods

This research is rooted in a two-year project on digital refugee livelihoods at the School of Social and Political Science, University of Edinburgh.² The methods included ethnographic research and on-site interviews among refugees in Lebanon and Germany. A second phase, conducted mostly digitally and remotely amid the COVID-19 pandemic, included remote interviews and surveys with refugees from a variety of countries and locations. These focused on refugee freelancers who worked from home for one of three social enterprises through digital platforms. The total number of surveyed freelancers in diverse locations³ was 131.

The first surveyed social impact platform is NaTakallam (Arabic for “We Speak”), a US-registered social enterprise that has matched some 200 displaced persons with over 10,000 clients across some 100 countries for online language sessions by 2021. Students and their refugee conversation partners are linked by an online system for booking and payments, as well as by the software used for the video sessions. Humans in the Loop is a provider of digitally mediated work that is specifically dedicated to refugees and people in conflict-affected countries. It primarily sources work in image annotation for the training of AI datasets. Initially launched in Sofia, Bulgaria, to source work for the local refugee population, it has since expanded into Turkey, Iraq, Syria, and other locations in collaboration with local partner organizations. They have provided

income opportunities for some 459 digital workers through 362 projects sourced from 61 different clients. Some 100 individuals were actively working on projects in the first quarter of 2021. Finally, TaQadam (Arabic for “Progress”) is a US-based enterprise for image annotation and crowdsourced geospatial imagery analysis that has outsourced work through its own platform primarily to a small crowd of Syrian refugees in Lebanon, alongside a pool of Lebanese citizens. Similar to those working for Humans in the Loop, freelancers working for TaQadam classify and annotate aspects of images to train algorithms, classify objects, and build visual datasets.

Due to the relatively small size of the cohorts that worked through the digital platforms of the three social enterprises, the results gained from the surveys and interviews are only representative of this specific kind of refugee platform work. Because these three platforms specifically aim to support refugees while mediating between freelancers and the planetary market, the experience of refugees who work on the free market through larger work platforms without such support may diverge in significant ways.

Introducing the Refugee Platform Workers

Sitting in a café in the Beirut district of Bourj Hammoud, a Syrian woman we will call Haneen⁴ opened her laptop and pointed out an image annotation tool on her screen, which showed a satellite image of buildings surrounded by fields. She demonstrated how she usually searched for names of companies and annotated whether it was a sale location, a warehouse, or another type of building. This work is a human-powered task that trains AI software, thereby improving its vision and classification of images. For a while, the family had access to only one laptop, which Haneen shared with her brother. Soon her younger sister, who was 16 years old, also got involved, and sometimes even the younger ones at ages 10 and 9 contributed a few clicks. With some of the money, they eventually bought a second laptop. Their digital work was crucial for their household’s economic survival.

Bashir was 25 years old when I met him at his Beirut home, two years after he arrived in Lebanon. Asked about his work as a conversation partner with NaTakallam, he pointed to the corner of his living room, where his laptop sat on a table, and said: “It’s great working from here.” He didn’t need to beat Beirut’s chaotic traffic to meet students on the other side of town. When he was still in Syria, Bashir studied English literature at Damascus University and worked for a company that repaired and sold laptops and mobile phones. When he arrived in Lebanon, he struggled to find work amid labor market restrictions and systematic discrimination. Syrian refugees in Lebanon are officially allowed to work in only three sectors of the economy: construction, cleaning, and agriculture. Eventually, he managed to secure a scholarship for a course

at a Lebanese university and began giving Arabic lessons to foreigners. This is when Bashir learned about NaTakallam, and he soon became one of its most active freelancers, teaching students and building relationships with people from the United States, Europe, and other places.

The fields of image annotation and language training are similar in the sense that refugees did the work from home, often without alternative sources of income, while facing difficulties in getting paid without holding bank accounts. Language service providers like NaTakallam function as a digital platform that link students from potentially anywhere on the planet with refugee conversation partners who can also be located anywhere, as long as they pass the interview process and have Internet access. Image annotation work is often repetitive, and larger projects are usually broken up into sets of microtasks that are distributed among a pool of prescreened and trained workers.

The freelancers across the three platforms shared a number of characteristics. For example, they were predominantly well educated. This high level of education somewhat mirrors the educational levels in the platform economy (Berg et al. 2018). At NaTakallam, 95 percent of surveyed language trainers had a background in higher education and had attended college or completed a bachelor's degree. A similar picture emerges from the two image annotation platforms. At Humans in the Loop, 14 of the 17 interviewed freelancers had attended some university.⁵ At TaQadam, 84 percent of the Syrian and Lebanese freelancers surveyed held a degree. The educational backgrounds were extremely diverse and included a variety of academic disciplines, ranging from computer science or engineering to various fields of the humanities and social sciences. Some of them entered the digital labor market because their host country did not accredit their preexisting qualifications and did not allow them to practice the professions in which they were trained.

The age of surveyed freelancers varied between the three employers, although most were relatively young. At NaTakallam, 54 percent were between 26 and 35 years old and 37 percent between 36 and 45. At TaQadam, which included nonrefugee freelancers from the Lebanese host community, the average age was 23 years. As mentioned above, the freelancers' much younger siblings also often got involved in image annotation work.

Impact of the COVID-19 Pandemic

In 2020, the COVID-19 pandemic gave home-based digital work renewed significance. Asked specifically about changes in their experience of online work during the pandemic, nearly half (45 percent) of surveyed freelancers at NaTakallam stated that their income had increased since the outbreak. Their customers, who are mostly located in

the Global North, suddenly had time to fill with language learning while sitting at home. A little over half agreed that without online work, they would not have been able to pay their rent or to buy food or basic services. Bashir, the freelancer working with NaTakallam, said he registered “maybe 30 percent more demand” than usual during the pandemic, adding: “When the quarantine started, I felt lucky that I had work with NaTakallam and my work was already online.”

Growing dependency on home-based platform work emerged alongside the economic hardship that intensified for many refugee families during the pandemic. They were often the first to lose their jobs, while falling through the gaps of social safety nets, experiencing xenophobia, and coping with increased precarity (Dempster et al. 2020). Many freelancers reported that other members of their household had lost their job, or that they had lost their own jobs, had to sell personal items, or borrow money.

Barriers to Accessing Digital Work

The marginalized position of refugees in relation to the planetary digital labor market is exemplified by the barriers to access they face. In the surveys and interviews, the freelancers highlighted the lack of a reliable Internet connection and a convenient place to work from as major problems. This combined with a lack of good hardware and regular electricity cuts to undermine their ability to work efficiently.

As Hussam, a 32-year-old Syrian freelancer who was internally displaced to the city of Azaz, put it: “The difficulties here in Syria are the Internet problems . . . [S]ometimes they don’t deliver electricity for days, maybe four days without it.” An unreliable Internet connection paired with recurring electricity cuts meant that NaTakallam’s language sessions were often interrupted or had to be rescheduled. Some 34 percent of surveyed freelancers at NaTakallam stated that they had difficulties working on the Internet due to a slow Internet connection.

Problems with obtaining adequate hardware posed another barrier. A 25-year-old Syrian woman in Lebanon who worked in image annotation wrote in her survey response: “[This work] is not permanent and I can only work on phone-based projects because I cannot buy a computer.” In a similar vein, a 20-year-old Syrian in Azaz who worked in image annotation said: “The major difficulties I faced in work [are that] my computer is very, very weak. I don’t have money to get a better one.”

Problems with getting paid electronically have posed a major challenge for refugees’ access to digital work; 26 percent of NaTakallam’s freelancers had “no access to bank accounts or bank cards,” and 32 percent stated that they faced difficulties getting paid. The banking and payment problems can often single-handedly cause a job opportunity

to go wasted (Bayram 2019). Money transfer services like Western Union are widespread, but they incur fees and don't always work well for remote employers. Mobile wallets theoretically allow receiving payments from abroad, but without a local bank account, users cannot easily cash out their digital money.⁶ Yet another barrier to accessing digital work in a sustainable way is the refugees' housing situation. Although most research participants had access to a private room, some stated that they didn't have a private room to work from. None of the respondents reported access to any kind of formal office space.

These barriers are paralleled by a frequent mismatch between the demands of the digital labor market and many refugees' digital literacy and skill levels, as well as English language skills. This hints at an important limitation of this analysis: in focusing on the experiences of workers with relatively high education levels who are already included on digital work platforms, it does not capture the challenges of refugees who would not be able to earn an income on such platforms without prior intensive training (Hackl 2021).

Working Conditions and Payment Levels

The freelancers across the three social impact platforms shared the position of marginality in the local labor markets and in relation to the planetary market. Moreover, the very confinement of situations of displacement that restricted their digital access became one of the reasons they became viable digital laborers: they needed money to support themselves and their families while coping with the challenges of forced displacement, which often involves exclusion from formal labor markets. The social enterprises responded by offering digital work opportunities that are tailored to this need, which can in turn create economic dependency on this ongoing support.

Refugee workers in image annotation often depended on this work as their only source of labor-based income. Few had other local jobs, and some had income from family members as an additional contribution to the household. Among the 17 workers interviewed at Humans in the Loop, only two had another job. In Lebanon, online work through TaQadam and its partner platform was the only source of income for 24 out of 31 respondents (77 percent). More than two-thirds considered their work "extremely important" for their economic survival, while the rest saw it at least as "very important." The overall impression is therefore that this digital work represents the main pillar of their livelihood for a strong majority of the respondents despite it not being designed as a secure and sustainable form of work.

This dependency and lack of alternatives mean that they are more likely to accept unfavorable conditions. Freelancers who label data and train algorithms that power AI technology do so mostly without access to a fair wage or basic benefits (Sinders

2020). Although the social enterprises aim to offer fair wages and good working conditions, they also depend on clients who expect competitive prices. Calculating average monthly income for this fluctuating kind of microwork in image annotation is extremely difficult, as the amount of work constantly changes, while some months do not offer employment at all. At one of the surveyed platforms, the average monthly salary that respondents estimated for themselves was around \$270 for an average estimated 35 hours of digital work per week or 140 hours a month.

The freelancers' experience was made difficult by the fluctuating nature of microwork in image annotation and the tight deadlines of project submission. As one Syrian freelancer in Azaz, northern Syria, said: "On a long project . . . it was huge. A lot of work, we maybe worked up to 15 hours a day, but at least 10 hours on average, and a minimum of 8 hours a day, over a period of two months. . . . The pay was little, maybe 1,400 Turkish lira, or around \$200, for two months of work. That's very little, but unfortunately there is no alternative. It's the work I have." The irregularity of the workload meant that freelancers often had weeks without work but also months where they worked at least eight or more hours per day. More than two-thirds of freelancers at Humans in the Loop were looking for other job opportunities because of the instability of annotation jobs.

Under the difficult circumstances of deadlines and urgent project submissions, fatigue posed another problem. Projects had to be delivered on time and at prices that were based on numbers of annotations rather than hourly rates. If annotators made mistakes and submitted low-quality work, they had to correct it without extra pay. A 50-year-old Iraqi annotator based in Bulgaria who had a background as a dental technician, said in an interview: "The difficulty, sometimes when they [the clients] need the work in three or four days—it's not easy, it needs from you to be very careful. And when you start to work, you try to deliver it on time, you get very tired. . . . We are refugees, a lot of people take advantage that we are weak. They work on our head, [demand the] maximum, whatever they can take from us. They are treating us like slaves."

Well aware that her direct employer, a social enterprise dedicated to supporting refugees, was doing its best to get work to them, the Iraqi annotator put the blame on the corporate clients. The mediating role of the platforms meant that refugee workers often had no direct contact with the buyers of their work. This relationship was very different from that experienced by language conversation partners, whose contact with the buyers of their work—the language students—was often very close and sometimes led to friendships. Yet this work also involved a range of unfavorable conditions—32 percent of freelancers working as language conversation partners reported that preparation time was not paid, while a quarter found that digital work does not provide security. Another quarter complained that their work often takes place at inconvenient times

due to time differences between their location and that of students, who are often based in North America or another distant location.

Of the \$15 fee the conversation partners earned per hour of Skype conversation, \$10 went to them and \$5 flowed back into NaTakallam.⁷ Payment levels varied significantly from tutor to tutor. Bashir, who was based in Lebanon, made about \$400 a month on average by teaching Arabic online. In a very good month, he made up to \$800. The platform became Bashir's primary source of income and remained crucial for his economic survival and his ability to continue his studies. The freelancer Osama made only around \$40 when he started out teaching Arabic over the Internet but soon managed to increase his monthly income to around \$250. Finding an appropriate job in the local labor market in Lebanon was an ongoing challenge for him: "In general, when they see you are Syrian on your CV, employers don't usually hire you here."

Among the 82 freelancers surveyed at NaTakallam, 35 percent earned less than \$200 a month, 44 percent earned between \$200 and \$400, and 21 percent earned between \$400 and \$600 or more. Although this work constituted between 75 and 100 percent of total income for about a quarter of the freelancers, 30 percent said it was less than 25 percent of their total income, and another 30 percent that it was between 25 and 50 percent. Another job (46 percent) and support from family members (15 percent) were the most common sources of additional income, alongside money from aid organizations and other freelancing work. Their income from NaTakallam was nonetheless crucial for the economic survival of their households, as some 63 percent stated that they supported between two and four people through their work and a quarter of respondents supported more than four people; the rest supported only themselves.

Flexible and Safe: Perceived Benefits of Home-Based Work

Working from home was highlighted as a particularly welcome alternative to the challenges of the local labor market in many places. More than two-thirds of language conversation partners at NaTakallam saw the ability to work from home and use their time flexibly as a positive feature of their work. In a similar vein, a 20-year-old Syrian image annotator in Turkey explained: "I like online work more because it can happen from the house. I don't feel the tiredness so much [working at home] as I do when I work outside the house, in Istanbul." Working from home further provided refugees with a sense of security in areas where commuting to work poses a considerable challenge.

Due to social and cultural factors, home-based work in the gig economy is seen as an attractive option for many Syrian women refugees (Hunt, Samman, and Mansour-Illie 2017). This highlights how platform work continues long-standing features of women's

work in domestic and market economies, including the celebration of worker flexibility, which often results in a combination of taken-for-granted care work and housework with paid digital labor (Gregg and Andrijasevic 2019). Among the surveyed refugees, women especially considered the ability to work from home to be beneficial for their family life and other responsibilities. As a 32-year-old Afghan woman who worked for Humans in the Loop from Bulgaria said: “I am a single mother, and I live here with my two kids. I am the one who works. I don’t have any family in Bulgaria. . . . I prefer online work because my son needs constant care.” Another refugee woman in Lebanon highlighted the importance of home-based freelancing for “earning more money to live with the economic difficulties that we are facing in Lebanon, especially that I am a divorced mom.”

Somewhat counterintuitively, working from home was further associated with increased international connections from within a situation of confinement. As one survey respondent working with NaTakallam put it: “I love working from home, it costs less and saves time and effort. In the time of the corona[virus pandemic], I was able to get to know a lot of new people through NaTakallam despite the fact that others suffered from loneliness.” Some interpreted this as a source of increased (digital) mobility within a situation of confinement, with one respondent saying: “It lets me travel every day to a different country by thoughts without any passport or visa, and I got new friends compensating me of my friends who I lost during the conflict. NaTakallam is my family.” In a similar vein, one refugee woman in Lebanon wrote in her survey response: “I most like about my work with NaTakallam that I am a part of and that I am in contact with new people from different countries around the world.” Especially in a situation of exclusion, as it often affects refugees in their respective locations, home-based freelancing in language training carried with it the ambivalent experience of enjoying meeting new people but also feeling isolated working from home. Indeed, 43 percent of the surveyed freelancers at NaTakallam stated that working from home is socially isolating.

The positive evaluation of home-based platform work was also partly determined by the lack of alternatives: Syrian survey respondents in Lebanon stated that working over the Internet was simply the only option because they were not legally allowed to work elsewhere in their field and that it also allowed them to avoid local discrimination. Indeed, as one respondent in the survey stated, “When I started [with NaTakallam] in Lebanon, it was a way to escape from racism.”

Incubation and Mediation: Connecting Refugees with the Digital Labor Market

The three social enterprises connect refugees to remote work opportunities on their digital platforms with the help of two main interventions: mediation and incubation.

Mediation refers to their inclusive intervention into an otherwise exclusive relationship between individual refugees and digitally mediated work. These interventions include bargaining with clients to ensure favorable working conditions for freelancers, supporting freelancers with training, and making sure that payments reach them even in the absence of bank accounts. *Incubation* refers to the fact that these platforms create a closed labor market of a few dozen, or at a maximum a little more than 100 freelancers, thereby shielding them from direct competition in the planetary market. Rather than investing large amounts of unpaid work time into searching for gigs, as is common on microwork and freelancing platforms, refugees working for the three social enterprises are offered work as projects or individual jobs become available. To be sure, some level of competition remains within this “incubator,” primarily because including more freelancers sometimes means that each of them gets a smaller slice of the pie.

That the social enterprises aim to support refugees through platform work does not necessarily mean that they manage to realize all their aims. Bound by market rules and competitive pricing, the social impact platforms in image annotation struggled to attract clients who were prepared to pay more than the low prices of the global market. The planetary competition that pits workers around the world against each other contributes to a race to the bottom (Graham and Anwar 2019). Humans in the Loop’s struggle with this dynamic started with their initial aim to fix hourly minimum prices. They soon discovered that clients found this unpredictable and demanded fixed pricing per annotation or per image instead. This forced the conditions of work away from guaranteed hourly wages. The clients in this field know little about the microworkers that train AI, who are in turn often unaware of the purposes of their tasks. This labor and its working conditions are intentionally kept hidden by key industry actors (Tubaro, Casilli, and Coville 2020).

Social enterprises like Humans in the Loop and TaQadam stand in an ambivalent space between worker and client, helping refugees to support their livelihoods by mediating between the digital marketplace and the workers. This role involves tensions, as the demands of the market don’t always fit their expectations. The standard pricing most clients expect in data training for a so-called bounding box annotation is around \$0.05, and between \$0.08 and \$0.10 for a polygon. At Humans in the Loop, only half of this amount goes straight to the annotator. These are challenging preconditions for anyone hoping to achieve decent working conditions.

Annotators feel fatigue and frustration when the pricing set at the initial agreement does not match the effort the project takes. This is why Humans in the Loop has been trialing each project with a sample to determine how unit pricing will translate into hourly payments before the price is fixed. This is to meet their goal of a minimum wage

of €3 per hour across all projects. Yet their power to change the underlying conditions is sometimes limited.

Iva Gumnishka, the founder of Humans in the Loop, recalls the problems that led to a recent project experience that many of her annotators struggled with:

We ask for estimates from the clients, so they price a project in the fairest way, but sometimes these estimates clients give us, or their samples, are not accurate. Recently, a client had sent us one sample and it turned out that the project was actually more difficult. If in the trial it took us one minute per image, in the actual project it took four or five minutes per image—the difference was huge. We tried to bring this up later and the client simply said, “We are a big company and you have to calculate in contingency.”

Such experiences show the social enterprises’ determination to negotiate more favorable conditions for their freelancers but hint at their limited power as mediators. The fear of losing a good client through demands that are too high is always present, as clients can easily move elsewhere and hire workers in India, China, the Philippines, or Pakistan. Among the conversation partners in NaTakallam’s remote language training, the mediation is done by the social enterprise’s digital booking system and staff, who connect freelancers to clients looking for language practice or translation services. To a certain extent, it is then up to the freelancers how they cultivate their clients and whether they manage to build a cohort of regular students.

Mediation regarding payment is crucial for including refugees in digital platform work. With varying degrees of success, the social enterprises channel the money clients pay into their accounts to individual refugees without bank accounts, often in remote locations. Getting cash to freelancers involves partnering up with local nongovernmental organizations, who distribute the money as cash or a check. Sometimes the only option is to bring cash into a country in person and distribute it on the ground. Without this mediation, most refugee freelancers would simply not be able to receive payment for platform work. At the same time, social impact platforms effectively charge refugee workers a substantial commission of up to 50 percent to cover running costs and other expenses. As refugee labor thereby funds part of the enterprises’ expenses and helps ensure its financial sustainability, these social impact platforms come to resemble private employment agencies in a digital world of work.

Career Progression and Uncertain Futures

Building on important support mechanisms, the social enterprises aim to extend into a pathway toward career progression. One of the key challenges remains how to turn refugees’ digital livelihoods into social mobility and increased access to decent work.

The platforms in image annotation held short training sessions before individual projects. In collaboration with partner organizations, some platforms offered longer, three-month training sessions in web design or other digital skills, alongside English language training. Humans in the Loop, for example, held 12-week courses of 16 hours per week in computer skills and English literacy, alongside shorter trainings in Excel and graphic design. These skills could be transferable into other forms of employment, and social enterprises like Humans in the Loop encourage and support students in these courses to move on to decent, sustainable work. However, refugees in many locations faced severe restrictions to their economic activity and to the kind of work they could access even if their digital skills were well developed. This is, in part, why many remain dependent on platform work and freelancing as a source of income.

Asked about their plans for their professional futures, a little more than half of the image annotators surveyed in Lebanon stated that they wanted to become successful online freelancers. Other career aims expressed by image annotators were continuing university studies or learning a new profession, as well as using training in digital skills to find secure employment at a local workplace. Although image annotation is a highly specific and often repetitive work, some freelancers managed to use their income to open small enterprises. The 22-year-old Syrian Shyar, who lived in an Iraqi refugee camp, opened a mobile repair shop within the camp using the money he saved from freelancing with Humans in the Loop.

Among freelancers involved in language training, 84 percent agreed that this work has given them “new professional goals” or built their existing skills, including in translation and intercultural communication, and 85 percent agreed that working online has improved their English language skills. The majority felt that working with NaTakallam improved their understanding of people from different cultural backgrounds; this included meeting people from elsewhere and making new friends.

Conclusion: The Displaced Marginality of Refugee Platform Work

The enduring impact of forced displacement determines refugees’ marginal position vis-à-vis the planetary digital labor market. This marginality stems from barriers to digital access that are specific to the circumstances that surround many refugees, including political and economic exclusion, unreliable infrastructures (especially Internet and electricity), exclusion from bank accounts and digital payment mechanisms, and a lack of globally competitive digital skills and English language abilities. At the same time, it is precisely this marginality that makes refugees a valuable source of digital labor for the clients looking to train AI data cheaply and readily available providers of language

conversation sessions for paying students in varying time zones around the world who require flexibility. Refugees' difficulties in finding adequate work in the restrictive labor markets of host countries, alongside experiences with discrimination, determine their position vis-à-vis the planetary market as a readily available cheap labor force in need of an alternative source of livelihood.

The case of refugees in the digital labor market underlines that the materiality of their displaced condition defines the products of their work and thereby becomes implicated in the planetary geography of production. Freelancers in image annotation must compete with pricing for workers in low-income countries despite often residing in middle- and upper-income countries. Their experience of the planetary digital market is deeply embedded in the specific experience and circumstances of the displaced condition and the national context they find themselves in. At the same time, refugees' inclusion in this market also results in a partial disembedding of the value of their labor from the national context into the international level of competition. Inclusion in the digital labor market displaces them once more.

How does this precarious inclusion of refugees in digital labor markets impact their experience of living in exile? Refugees are exiles and economic outcasts in a world that is spanned by the planetary digital market; their inclusion in this market leads to forms of self-employment that largely mirror the piecemeal work refugees have long done in informal economies. Still, home-based platform labor offers an important source of livelihoods that support the economic survival of displaced individuals, families, and households. The sometimes-unfavorable conditions of this low-paid, insecure work highlight that inclusion of refugees in digital markets reproduces the very marginality that pushed them to get involved in the first place. Rather than becoming self-reliant employees with transferable skills, they often remain dependent on the ongoing mediation and support of the platforms, with limited possibilities for career progression. Without the continuing mediation and incubation of the social enterprises that are dedicated to supporting them, many would not be able to compete or receive payment on the global market and often would not even be able to afford a computer.

To be sure, the two fields of refugee platform work discussed are notably different in experience and nature of work. Seen together, they nevertheless highlight the limits of the digital economy's inclusive role for people at the world's margins. In order to realize the potential for economic inclusion and development that digital livelihoods are sometimes associated with, there is a need for ambitious, long-term policies that frame the further development of digital platform work in AI and other fields "by taking into account the concrete conditions of its production" (Tubaro, Casilli, and Coville 2020, 11). In the case of refugees, this includes the need for improved financial and digital

access, better working conditions, and a revision of restrictive national refugee policies that impede people's access to distant jobs and platform work. This effort should support and build on the important pioneering work social impact platforms for refugees have done thus far by strengthening their capacity to mediate effectively between the planetary digital market and the people at the world's economic margins.

Notes

1. Upwork community forum at <https://community.upwork.com/t5/Admin-Support-Specialists/ID-verification-Syria-is-not-listed/m-p/549134>.
2. The research project was funded by the Economic and Social Research Council (ESRC), UK.
3. At NaTakallam (<https://natakallam.com>), 82 freelancers responded to the survey; most of them were forcibly displaced persons from various countries including Syria, Lebanon, Iraq, Burundi, Afghanistan, Palestine, and Venezuela. The research with Humans in the Loop (<https://humansintheloop.org>) was a collaborative effort with their annual impact assessment in 2020 and involved structured remote interviews with 17 freelancers located in Iraq, Syria, Turkey, and Bulgaria. At TaQadam (<https://taqadam.io>), 32 Lebanese and Syrian freelancers, all based in Lebanon, responded to the online survey in July 2020.
4. All names of refugee platform workers in this chapter are pseudonyms and have been anonymized to protect the privacy of research participants.
5. The overall educational levels of freelancers at Humans in the Loop may differ from this snapshot of 17 interviewees, who only make up a small share of the total workforce.
6. Mobile money transfer and mobile wallet systems are designed to avoid bank fees and restrictions by allowing consumers to transfer money, purchase products, and use alternative currencies at virtually no cost. Without a bank card and an account to cash out digitally stored money, however, refugees can make little use of these systems. Moreover, prominent services such as PayPal are banned in some locations, including Lebanon.
7. NaTakallam announced an increase of their prices in October 2020, from the previous \$15 per hourly conversation session to \$25. These increases were meant to ensure the sustainability of the social enterprise while further improving its impact on the lives of refugees and their host communities.

References

- Bayram, Ahmad Sufian. 2019. *A World of Limited Possibilities: Refugee Youth and Job Opportunities within the Lebanese Law and Market*. Beirut: SPARK. <https://www.ahmadsb.com/research/Refugee-Job-Opportunities-in-Lebanese.pdf>.
- Berg, Janine, Marianne Furrer, Ellie Harmon, Uma Rani, and M. Six Silberman. 2018. *Digital Labour Platforms and the Future of Work: Towards Decent Work in the Online World*. Geneva: International

Labour Organization. https://www.ilo.org/global/publications/books/WCMS_645337/lang--en/index.htm.

Bilić, Paško, Jaka Primorac, and Bjarki Valtýsson. 2018. "Technology, Labour and Politics in the 21st Century: Old Struggles in New Clothing." In *Technologies of Labour and the Politics of Contradiction*, edited by Paško Bilić, Jaka Primorac, and Bjarki Valtýsson, 1–16. Cham, Switzerland: Palgrave Macmillan.

de Groen, Willem Pieter, Zachary Kilhoffer, Karolien Lenaerts, and Irene Mandl. 2018. "Employment and Working Conditions of Selected Types of Platform Work." Luxembourg: Publications Office of the European Union.

Dempster, Helen, Thomas Ginn, Jimmy Graham, Martha Guerrero Ble, Daphne Jayasinghe, and Barri Shorey. 2020. "Locked Down and Left Behind: The Impact of COVID-19 on Refugees' Economic Inclusion." Washington, DC: Center for Global Development. <https://www.cgdev.org/publication/locked-down-and-left-behind-impact-covid-19-refugees-economic-inclusion>.

Graham, Mark. 2019. "The Internet at the Global Economic Margins." In *Society and the Internet*, edited by Mark Graham and William H. Dutton, 255–278. Oxford: Oxford University Press.

Graham, Mark, and Mohammad Anwar. 2019. "The Global Gig Economy: Towards a Planetary Labour Market?" *First Monday* 24 (4), April 1. <https://doi.org/10.5210/fm.v24i4.9913>.

Graham, Mark, Isis Hjorth, and Vili Lehdonvirta. 2017. "Digital Labour and Development: Impacts of Global Digital Labour Platforms and the Gig Economy on Worker Livelihoods." *Transfer: European Review of Labour and Research* 23 (2): 135–162.

Gregg, Melissa, and Rutvica Andrijasevic. 2019. "Virtually Absent: The Gendered Histories and Economies of Digital Labour." *Feminist Review* 123 (1): 1–7. <https://doi.org/10.1177/0141778919878929>.

Hackl, Andreas. 2021. *Digital Refugee Livelihoods and Decent Work: Towards Inclusion in a Fairer Digital Economy*. Geneva: International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---ddg_p/documents/publication/wcms_780060.pdf.

Heeks, Richard. 2017. "Decent Work and the Digital Gig Economy: A Developing Country Perspective on Employment Impacts and Standards in Online Outsourcing, Crowdwork, Etc." Working Paper 71. Manchester: Centre for Development Economics. http://hummedia.manchester.ac.uk/institutes/gdi/publications/workingpapers/di/di_wp71.pdf.

Hunt, Abigail, Emma Samman, and Dina Mansour-Ille. 2017. "Syrian Women Refugees in Jordan: Opportunity in the Gig Economy?" London: Overseas Development Institute. <https://odi.org/en/publications/syrian-women-refugees-opportunity-in-the-gig-economy/>.

ILO. 2019. "Work for a Brighter Future: Global Commission on the Future of Work." Geneva: International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_662410.pdf.

Karar, Haytham. 2019. "Algorithmic Capitalism and the Digital Divide in Sub-Saharan Africa." *Journal of Developing Societies* 35 (4): 514–537.

Kaurin, Dragana. 2020. *Space and Imagination: Rethinking Refugees' Digital Access*. Geneva: UNHCR Innovation Service. https://www.unhcr.org/innovation/wp-content/uploads/2020/04/Space-and-imagination-rethinking-refugees-digital-access_WEB042020.pdf.

Latonero, Mark, Danielle Poole, and Jos Berens. 2018. *Refugee Connectivity: A Survey of Mobile Phones, Mental Health, and Privacy at a Syrian Refugee Camp in Greece*. Cambridge, MA: Harvard Humanitarian Initiative. <https://hhi.harvard.edu/publications/refugee-connectivity-survey-mobile-phones-mental-health-and>.

Mason, Ben. 2018. *Tech Jobs for Refugees: Assessing the Potential of Coding Schools for Refugee Integration in Germany*. Brussels: Migration Policy Institute Europe. https://www.migrationpolicy.org/sites/default/files/publications/TechJobsRefugees_Final.pdf.

Robinson, Laura, Jeremy Schulz, Hopeton S. Dunn, Antonio A. Casilli, Paola Tubaro, Rod Carveth, Wenhong Chen, Julie B. Wiest, Matias Dodel, Michael J. Stern, Christopher Ball, Kuo-Ting Huang, Grant Blank, Massimo Ragnedda, Hiroshi Ono, Bernie Hogan, Gustavo Mesch, Shelia R. Cotten, Susan B. Kretchmer, Timothy M. Hale, Tomasz Drabowicz, Pu Yan, Barry Wellman, Molly-Gloria Harper, Anabel Quan-Haase, and Aneka Khilnani. 2020. "Digital Inequalities 3.0: Emergent Inequalities in the Information Age." *First Monday* 25 (7), July 6.

Sinders, Caroline. 2020. "Examining the Human Labor behind AI." Mozilla Foundation, May 14. <https://foundation.mozilla.org/en/blog/examining-human-labor-behind-ai/>.

Tubaro, Paola, Antonio A. Casilli, and Marion Coville. 2020. "The Trainer, the Verifier, the Imitator: Three Ways in Which Human Platform Workers Support Artificial Intelligence." *Big Data & Society* 7 (1): 1–12. <https://doi.org/10.1177/2053951720919776>.

van Doorn, Niels, Fabian Ferrari, and Mark Graham. 2020. "Migration and Migrant Labour in the Gig Economy: An Intervention." *SSRN*, July 1. Available at https://ssrn.com/abstract_id=3622589.

Vernon, Alan, Kamel Deriche, and Samantha Eisenhauer. 2016. *Connecting Refugees: How Internet and Mobile Connectivity Can Improve Refugee Well-Being and Transform Humanitarian Action*. Geneva: UNHCR. <https://www.unhcr.org/en-us/publications/operations/5770d43c4/connecting-refugees.html>.