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DIGITAL LABOUR AND SOCIAL REPRODUCTION – CROWDWORK IN GERMANY AND ROMANIA¹

The COVID-19 crisis had a profound impact on people's daily lives. For many, the change was most noticeably felt through the relocation of their workplace to the confines of their home. While working from home represented a gain in flexibility and autonomy for some, for others it meant additional stress and precariousness – for example due to crowded housing conditions or the challenge of having to reconcile wage labour and unwaged 'socially reproductive' labour, including the work of caring for oneself, for children, the elderly, the ill, and others in new ways.² The crisis triggered a broad debate about whether remote work could become "the new normal" even beyond the pandemic.

Julia, 36 years old and living in a small town in the south-west of Germany, was already working from home years before the pandemic.³ Every day, she performs various tasks – from translations to customer service to social media marketing – via the digital platform *Upwork*. She chose this form of self-employed home-based work primarily to be able to spend more time with her two young children. She does much of her

¹ This article is a revised and translated version of Mira Wallis, "Digitale Arbeit und soziale Reproduktion: Crowdwork in Deutschland und Rumänien", in Moritz Altenried, Julia Dück and Mira Wallis (eds.), *Plattformkapitalismus und die Krise der sozialen Reproduktion*, Münster, Westfälisches Dampfboot, 2021, pp. 228–251.

² Elsewhere I have defined 'social reproduction' (together with my colleagues Moritz Altenried and Julia Dück) as an ensemble of practices, goods, infrastructures and institutions that are necessary for the reproduction of human labour power. This entails a daily, a generational as well as a subjectivizing dimension: not only do workers have to show up for work every day regenerated, possessing or acquiring appropriate skills and qualifications, but they also have to accept (at least to a certain extent) the societal circumstances in which they work for the wealth of others (cp. Moritz Altenried, Julia Dück and Mira Wallis, "Zum Zusammenhang digitaler Plattformen und der Krise der sozialen Reproduktion: Einleitung", in Altenried et al. (eds.), *Plattformkapitalismus und die Krise der sozialen Reproduktion*, pp. 7–26).

³ The names of all my interview partners have been changed for the purpose of anonymization.

work in the late evening when they are asleep.

As this example makes clear, the ongoing debate about working from home often implies a pre-pandemic ‘normality’ with clear boundaries between the (private) home and the (public) workplace that have never existed as such: not only because of the unpaid socially reproductive work that is still largely done by women within the home, but also because, well before the COVID-19 crisis, the private home was for many already the place of their wage labour. According to the International Labour Organization (ILO), 260 million home-based workers – including those working within the textile, electrical and IT industries – contributed to global economic output in 2019.⁴ Contrary to the widespread view of home-based labour as a remnant of a pre- or early-capitalist past, a look at the global history of industrial home-based labour shows that this form of work by no means disappeared in the 20th and 21st centuries, but has been a consistent feature, albeit with conjunctural differences closely linked to technological developments.⁵

This article deals with a specific group of home-based workers, namely those who – like Julia – work in the remote gig economy. On so-called crowdwork platforms such as Upwork or *Amazon Mechanical Turk*, they perform web-based tasks in front of their personal computers or with their smartphones for clients from all over the world. The tasks range from small-scale work that can be performed without much training, such as categorizing images or recording sample sentences (*microtasks*), each of which are paid in pennies, to complex and time-consuming jobs such as translations, programming or design activities (*macrotasks*), some of which are paid by the hour. With a digital device and a stable Internet connection, crowdwork can potentially be performed at any time and from any location. Nevertheless, it mostly takes place in private dwellings – turning millions of living rooms, kitchens and bedrooms around the world into small, individualized workplaces.

In recent years, a growing number of studies have dealt with how digital platforms are transforming the world of work. Less attention has been drawn to the extent to which platform companies are directly or indirectly intervening in the sphere of social reproduction, including housing, shopping and childcare, as well as reinforcing or reconfiguring the gender division of labour. While *Care.com* provides temporary flexible

⁴ Cp. International Labour Organisation (ILO), *Working from Home. Estimating the Worldwide Potential*, Policy Brief, Geneva, 2001. Available at: https://www.ilo.org/global/topics/non-standard-employment/publications/WCMS_743447/lang-en/index.htm [accessed December 2, 2020].

⁵ Cp. Mira Wallis and Moritz Altenried, “Zurück in die Zukunft: Digitale Heimarbeit”, *Ökologisches Wirtschaften*, 33 (4), 2018, pp. 24–26.

childcare, *Helpling* offers on-demand cleaning workers and *Lieferando* delivers dinner to our doorstep – all with just a few clicks. As argued in the anthology *Plattformkapitalismus und die Krise der sozialen Reproduktion*⁶, which I edited together with Moritz Altenried and Julia Dück, platform companies are trying to tap into different dimensions of what has been defined as multiple “crises of social reproduction” in feminist scholarship: while the accumulation of capital is always dependent on the reproduction of human labour power, the capitalist pursuit of growth and profit also constantly undermines the processes of social reproduction. It is this contradiction that, according to scholars such as Nancy Fraser, “lies at the roots of the so-called crisis of care”⁷.

This crisis manifests itself in manifold ways: the cutback of public services and their market-efficient restructuring in the form of increasing privatization, competition and profit-orientation is one important tendency. At the same time, attempts to compensate for gaps in service provision arising from these cuts lead to (subjective) exhaustion, burnout or frustration, affecting for example employees in hospitals and daycare centers or those with parental responsibilities. As a consequence, financial and time resources in the ‘private sphere’ decrease and lead to further gaps in the provision of reproductive labour.⁸ These gaps and different moments of crisis are then used by platform companies as business fields or recruitment strategies for new clients and workers.⁹

Crowdwork, as one part of this diverse landscape of gig economy platforms, is not a paid reproductive activity¹⁰ in the strict sense. Nevertheless, as I will demonstrate in the following, this area of platform capitalism does intervene in the field of social reproduction as well. I will do so on the basis of two questions: First, I explore why people choose

⁶ Altenried et al., “Zum Zusammenhang digitaler Plattformen und der Krise der sozialen Reproduktion”.

⁷ Nancy Fraser, “Contradictions of Capital and Care”, *New Left Review*, 100, 2016. Available at: <https://newleftreview.org/issues/ii100/articles/nancy-fraser-contradictions-of-capital-and-care> [accessed September 23, 2021].

⁸ Cp. Julia Dück, “Mehr als Erschöpfungen im Hamsterrad – Soziale Reproduktion und ihre Krise(n)”, in Altenried et al. (eds.), *Plattformkapitalismus und die Krise der sozialen Reproduktion*, pp. 45–46.

⁹ Cp. Altenried et al., “Zum Zusammenhang digitaler Plattformen und der Krise der sozialen Reproduktion”, pp. 14–17.

¹⁰ The organisation of social reproduction always involves a complex arrangement of actors and institutions (including the family, the state, hospitals, schools, restaurants, and more). The way in which these contribute to social reproduction is historically and geographically variable and always socially contested. Especially in contemporary societies with a high degree of division of labour, relations of reproduction are not only carried out by means of unpaid domestic labour, but also secured through a variety of wage labour arrangements which can take place in profit-oriented enterprises as well as in governmental and other institutions (ibid., p. 9). Childcare offered by the platform *Care.com* is an example for a paid reproductive activity organized through a profit-oriented private company.

crowdwork and show how these motivations are related to local conditions of reproduction. To what extent is their decision to engage in digital platform labour also a strategy for dealing with multiple crises of social reproduction? Second, I investigate how crowdworkers navigate the different spatialities and temporalities that emerge through working on a global digital labour platform from their private homes.

Both questions will be discussed on the basis of my ethnographic research on crowdwork in Germany and Romania.¹¹ Although a significant portion of the global digital workforce is located in Eastern European countries¹², there have been few studies examining the working and living conditions of these crowdworkers. Romania is interesting not only in its own right, but also in relation to Germany, as the two countries look back on a shared history of migration as well as economic ties, especially with regard to Romania as an outsourcing and offshoring location for German companies.¹³

PATHWAYS INTO DIGITAL HOME-BASED LABOUR

Crowdwork platforms operate with different promises of spatiotemporal flexibility. They offer their clients a solution to various forms of labour shortages and access to a low-cost, flexibly scalable, and culturally heterogeneous workforce. The workers are in turn recruited with promises of flexibility and autonomy, the compatibility of wage and care work, or a mobile lifestyle. In the following, I will look beyond these narratives and describe the different pathways that lead people in Germany and Romania to perform crowdwork. Which dimensions of crisis-ridden social-reproductive relations can be observed with regard to their motivations?

We already got to know Julia at the beginning of this article. She lives with her husband and two children in a small town in southwest Germany and has been working on the crowdwork platform Upwork for four years. Upwork is one of the world's largest English-speaking platforms for freelancers, offering all kinds of (mostly higher-skilled) digital labour – from marketing, accounting or web development to copywriting. Julia has only recently returned to Germany. Before that,

¹¹ The empirical material was conducted within the ongoing research project “Digitalisation of Labour and Migration” (2018-22), funded by the German Research Foundation (DFG; project number 398798988). 37 crowdworkers on the platforms *Appen*, *Figure Eight*, *Upwork*, *Fiverr* and *Microworkers* have been interviewed in Germany and Romania so far as part of the ongoing ethnographic research.

¹² Cp. Siou Chew Kuek et. al., *The Global Opportunity in Online Outsourcing*, Washington D.C., World Bank Group, 2015, p. 30.

¹³ Cp. Mira Wallis, “Digital Labor Between Germany and Romania”, *EASTEAST*, 2021. Available at: <https://www.easteast.world/en/posts/367> [accessed August 2, 2021].

she and her family lived in Canada for ten years, where the trained nurse worked in customer service in her two native languages German and English. She came across Upwork while looking for a supplementary income, which became necessary because her entire salary had to be spent on childcare, which is completely privatized in Canada. In addition, Julia wanted to find out whether platform work might eventually allow her to become self-employed so she could spend more time with her children. Since she was already out of the house ten hours a day due to a long commute, she was eager to find a part-time job that she could perform from home. Back in Germany, she now works as a full-time freelancer on Upwork. Her various clients are mainly North American and German logistics companies, for whom she translates and does customer service. She offers her services for eleven euros an hour, from which, after deducting the fee that Upwork charges for each transaction, she is left with the equivalent of 8.80 Euros – an hourly wage that is below the statutory minimum in Germany and does not include social security and pension contributions.

Alexandra is around 30 years old and lives with her partner and eight-month-old baby in a medium-sized town in the Transylvania region of Romania, where she works as an assistant manager in human resources management. She is currently on parental leave. A year ago, she started working on the platform *Appen*, after a long time searching for a way to earn extra income from home. Appen specializes in so-called data annotation, which comprises the categorization and labelling of data by humans for AI applications. This is necessary to optimize search engines or develop speech recognition software, for example. In order to feed its speech recognition algorithms with different accents and dialects Appen has a specific need for a global and heterogeneous workforce. Alexandra's job on the platform is to transcribe anonymized audio recordings of social media users and help machine learning systems distinguish between human and non-human sounds. For this, she is paid an average of five US dollars per hour, a higher hourly wage than she earns with her regular employer. Alexandra found Appen through an online advertisement. The platform company specifically targets people with care responsibilities. On its blog, Appen features numerous articles presenting crowdwork as the ideal solution for balancing paid work and reproductive activities.¹⁴ It is this promise of flexibility, autonomy, and compatibility of paid work and childcare that has led Alexandra, similarly to Julia, to pursue digital home-based labour.

¹⁴ Cp. Appen, *How Remote Work Can Help You Return to the Workforce*, thread posted on February 13, 2019. Available at: https://appen.com/life_at_appen/how-remote-work-can-help-you-return-to-the-workforce-lifeatappen/ [accessed December 2, 2020].

Both examples from my qualitative research underscore what quantitative studies of the gendered dimensions of remote gig work have pointed to in recent years: there is a large share of female workers on crowdwork platforms who often state the motivation for this form of work as the possibility to “engage in some form of work and earn some income and at the same time take care of children or elderly relatives and perform housework”.¹⁵ Many female crowdworkers have young children¹⁶ and more female than male workers report only being able to work from home due to care responsibilities¹⁷. In addition, women are more likely to take on low-paying jobs on crowdwork platforms, such as translation and writing¹⁸ or surveys, teaching, and microtasking¹⁹.

However, the examples of Julia and Alexandra, as well as many other interviews I conducted, also show that the decision to work from home is often not just a matter of economic necessity. Few female crowdworkers with care responsibilities are actually ‘bound’ to their homes and can only work from there. Rather, they most choose to work on a platform because they are searching for some kind of “temporal autonomy”²⁰ that allows them to spend more and more self-determined time with their children.

But it is not just women who are opting for digital home-based labour. Due to the low-entry barriers to platform work and its spatiotemporal flexibility, the workforce on crowdwork platforms is characterized by its very “heterogeneity”.²¹ Moreover, the nexus between crowdwork and social reproduction cannot be reduced to the combination of paid work with childcare; other forms of being partly ‘bound’ to the private home also come into play. Among the workforce on crowdwork platforms one finds people taking care of relatives with

¹⁵ Janine Berg et al., *Digital Labour Platforms and the Future of Work. Towards Decent Work in the Online World*, Geneva, International Labour Office, 2018, p. 69. Also cp. Moritz Altenried, “Die Plattform als Fabrik. Crowdwork, Digitaler Taylorismus und die Vervielfältigung der Arbeit”, *PROKLA. Zeitschrift für kritische Sozialwissenschaft*, 47 (2), pp. 175–191, here: 185–186.

¹⁶ Cp. Antonio Casilli et al., *Le Micro-travail en France. Derrière l’automatisation de nouvelles précarités au travail?* Report of Project “Digital Platform Labor” (DiPLab), 2019. Available at: <http://diplab.eu> [accessed December 3, 2020], p. 40.

¹⁷ Cp. Janine Berg et al., *Digital Labour Platforms and the Future of Work*, p. 38.

¹⁸ Cp. Branka Andjelkovic et al., *Digging into Gig Economy in Serbia: Who are the Digital Workers from Serbia and Why Do They Work on Global Platforms?* Public Policy Research Centre, Belgrad, 2019, p. 7. Available at: <https://publicpolicy.rs/publikacije/961581c6008514f57a7635bbdf8c7bc1cbe24fea.pdf> [accessed December 3, 2020].

¹⁹ Cp. Mariya Aleksynska et al., *Work on Digital Labour Platforms in Ukraine*, 2018. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_635370.pdf [accessed December 3, 2020], p. 31.

²⁰ Veena Dubal, *The Time Politics of Home-Based Digital Piecework*, Symposia of Centre for Ethics at the University of Toronto, May 15, 2020.

²¹ Moritz Altenried, *The Digital Factory*, Chicago, University of Chicago Press, forthcoming.

health problems, those with their own physical restrictions, disabilities or mental health issues²² who cannot work in a ‘traditional’ nine-to-five job outside their home, and pensioners supplementing their low retirement funds.

Another significant group of workers are migrants, for whom crowdwork often presents a way to escape exclusion in the local or national labour market, especially in Germany. Globally operating and English-speaking platforms such as *Microworkers* or Upwork offer an income opportunity in the global digital economy to those facing difficulties entering the labour market due to language barriers, work bans, and/or racist discrimination.²³ Although many migrants have been using crowdwork platforms for years, often before migrating, they frequently characterize platform work as bridging the wait for a ‘real’ job.

RHYTHMS AND SPACES OF WORK IN CROWDWORKERS’ EVERYDAY LIFE

Crowdwork platforms’ promises of flexibility, a better work-life balance and a mobile lifestyle can affect workers’ decision to perform this kind of work and are linked in specific ways to local conditions of social reproduction. But how do these promises manifest in workers’ concrete everyday lives: how do they navigate the different spatialities and temporalities that emerge through working on global digital platforms? How do they navigate these diverse times/spaces – between on- and offline, wage labour and reproduction, global platforms and local embeddedness, ‘physical’ immobility and virtual mobility?

Logged in: Workday Fragmentation and Elasticity

We have already met Julia, who works on Upwork as a translator and in customer service in order to spend more time with her two children. She has to adjust the temporal rhythms of her work to two demands: on the one hand, she has to meet the deadlines of her clients, many of whom are based in North America. On the other hand, she can only work when her youngest child is asleep or in daycare. As a result, she usually works in the evenings after 8 p.m., often late into the night.

Evening and night work is also a daily routine for Alexandra in

²² Cp. Wiebke Frieß and Iris Nowak, “Menschen mit Beeinträchtigungen als Crowdworker_innen – Inklusion in die Prekarität?”, in Moritz Altenried et al. (eds.), *Plattformkapitalismus und die Krise der sozialen Reproduktion*. pp. 252–273.

²³ Cp. Moritz Altenried, Manuela Bojadžijev and Mira Wallis, “Platform (Im)mobilities: Migration and the Gig Economy in Times of COVID-19”, *Routed (Epidemics, Labour and Mobility)*, 10, 2020. Available at: <https://www.routedmagazine.com/platform-immobilities> [accessed September 23, 2021].

Transylvania. She and her partner cannot afford babysitters, and their child is still too young for daycare. That’s why Alexandra tries to work on Appen from 8 p.m. to midnight every day. She often finds the activities tiring, especially when she has to transcribe audio material – a very meticulous job that requires high concentration.

These short empirical examples are in line with broader quantitative research on crowdwork: studies indicate that female crowdworkers in particular frequently work at night²⁴ and that women more rarely work on fixed days of the week than men, often working on platforms six or even seven days a week.²⁵ Isabell Hensel suggests that women are also more affected by precarious working conditions on platforms, with platform work more often their only income opportunity.²⁶

Many of these findings echo the sociological discussion of the delimitation of labour. Work intensification and stress due to constant availability – in addition to the unpaid reproductive work still disproportionately performed by women – are discussed as the flipside of temporal flexibility. These negative tendencies are even more pronounced in the case of digital labour, and especially with regard to platform labour.²⁷ Crowdwork platforms contribute to this intensification through several factors. On the one hand, they establish new forms of semi-automated control that can intervene even more strongly in the everyday life of workers, for example through algorithm-based rating and ranking systems that penalize absences and inactivity or delayed response times by making the worker’s profile less visible to customers. On the other hand, the blurring of boundaries between work and life is exacerbated by the global competition on crowdwork platforms. The business model of the platform companies is based on a constant oversupply of labour, available at any time of the day or night.

Ursula Huws describes this situation as a dissolution of the “unity of time and space of the traditional workplace” and a shift in the meaning of “presence” at work, which is now increasingly defined as being “logged in”.²⁸ Digital workers are “logged” in different ways: first, by the fragmentation of their work into separate tasks; second, by the

²⁴ Cp. Mariya Aleksynska et al., *Work on Digital Labour Platforms in Ukraine*, p. 37; cp. Janine Berg et al., *Digital Labour Platforms and the Future of Work*, pp. 67–50.

²⁵ Cp. Abi Adams-Prassl and Janine Berg, “When Home Affects Pay: An Analysis of the Gender Pay Gap Among Crowdworkers”, *SSRN*, 2017, p. 1–22, here: p. 10.

²⁶ Cp. Isabell Hensel, *Genderspekte von Plattformarbeit: Stand in Forschung und Literatur. Expertise für den Dritten Gleichstellungsbericht der Bundesregierung*, 2020. Available at: <https://www.dritter-gleichstellungsbericht.de/de/article/220.genderspekte-von-plattformarbeit-stand-in-forschung-und-literatur.html> [accessed December 3, 2020], pp. 59–60.

²⁷ *Ibid.*, pp. 51–52.

²⁸ Ursula Huws, “Logged Labour. A New Paradigm of Work Organisation?”, *Work Organisation, Labour & Globalisation*, 10 (1), pp. 7–26, here: pp. 21–22.

permanent monitoring of their work by customers or intermediaries (such as the platform); and third, by the requirement to be constantly online and available for work.

As a consequence, crowdworkers with care responsibilities in particular face the challenge of navigating between wage labour, chopped into many small task units, and reproductive labour, all while they need to make their workday “elastic”²⁹ in order to be able to meet the pressure of constant availability generated by the digital platform. This temporal flexibility is fundamentally based on the overlapping of working and living space. In the following, I will demonstrate that the private living space, however, serves not only as a place of work but in some cases also as an object of crowdwork. Workers therefore have to navigate many different dimensions of intimacy in their workday.

Intimate Relations: The Household as a Place and Object of Work

Melissa Gregg uses the notion of intimacy in relation to home-based labour to illuminate the role of digital technologies in the invasion of the home by wage labour and to describe the intimate relationships that homeworkers develop with their work.³⁰ In the case of crowdwork, two qualitatively new dimensions of this intimacy of labour can be observed. The first dimension concerns the household as a place of work. As I will illustrate in what follows, this specific spatialization of crowdwork does not only entail the aforementioned combination of wage and care work, but oftentimes also involves other members of the household in platform work. The second dimension of intimacy relates to the household as the object of work. Microtask platforms that specialize in optimizing machine learning systems offer their clients access to the intimacy of the private home through crowdwork.

Let us take a look at the first dimension. Marik is 28 years old and moved to Germany from Egypt in November 2019 in order to do a preparatory German course in the Ruhr area and later study computer science. Since initially he did not have an official work permit, he worked on a variety of online platforms. He had already acquired many years of experience with this kind of work, as it enabled him to earn a higher income in Egypt than in his profession as a production engineer. Most recently, Marik worked on the platform Appen, like Alexandra from Romania. Appen pays crowdworkers different hourly wages depending on their country of residence – in Egypt, he earned four US dollars per hour, while in Germany an hourly wage of up to 18 euros can be

²⁹ Shehzad Nadeem, “The Uses and Abuses of Time: Globalization and Time Arbitrage in India’s Outsourcing Industries”, *Global Networks*, 9 (1), 2009, pp. 20–40, here: p. 35.

³⁰ Cp. Melissa Gregg, *Work’s Intimacy*, Cambridge, UK, Polity Press, 2011.

achieved. Marik would like to continue working for Appen in Germany as well. But the platform only allows this after three years of residence in Germany, as the evaluation of social media content requires workers who are familiar with the German context. For this reason, he works instead on *Figure Eight*, a microtask platform bought up by Appen, where he fills out surveys, among other tasks. Because he can't use his Appen account in his new home, he lends it to his cousin in Egypt, who completes tasks from there. Meanwhile, he uses the 'German' Appen account of an Egyptian friend living in Germany to earn more money. Two more of his cousins also work in Egypt on Figure Eight. In a Facebook group, they exchange information about the latest tasks on the platforms and share their accounts.

Once again, through examples like this, we can see that space does not become obsolete through digital labour platforms, but is rather reconfigured. Marik is just one of many crowdworkers in my sample who share their accounts with household members, friends or family, or even work on gigs together. New "collaborative"³¹ practices between household members emerge which remind us of more traditional forms of home-based labour that had often been characterized by the collaboration of all family members (by necessity).³²

Again, what is new here is the global dimension, as Marik's example shows: although he is not physically in the same household as his relatives in Egypt, he organizes the reproduction of the family partly through shared wage labour on digital platforms. By using Marik's account on Figure Eight his cousins are able to access better paid gigs in Germany. This requires them to change their IP address through VPN clients since the platform tries to prevent this practice. Digital platform labour can thus also be understood as a strategy to escape local conditions of reproduction through the "virtual migration"³³ of one's own labour power via global platforms – without physically relocating. The statement of a Romanian interview participant can be interpreted in a similar way. When asked what he would change about platform work, he replied: "I would change my country with a VPN, but only online, because I wouldn't leave Romania." Such strategies can also be observed on

³¹ Mary L. Gray and Suri Siddharth, *Ghost Work. How to Stop Silicon Valley From Building a New Global Underclass*, Boston, MA, Mariner Books, 2019, pp. 121–139.

³² Marx described home-based workers as a reserve army, available to support work in the factory, and particularly in the textile industry, in the mid-19th century. He emphasized the central role of women and children. Cp. Karl Marx, *Das Kapital, Band 1*, Berlin, Dietz Verlag, 2008 [1890], pp. 485–486.

³³ Aneesh Aneesh, *Virtual Migration. The Programming of Globalization*, Durham, Duke University Press, 2006. Cp. also Moritz Altenried and Manuela Bojadžijev, "Virtual Migration, Logistics, and the Multiplication of Labour", *spheres – Journal for Digital Cultures*, 4, pp. 1–16.

platforms for higher-skilled jobs. Another Romanian interviewee, for example, reported receiving requests from crowdworkers from the Philippines who wanted to use his account to get better-paying jobs from clients, some of whom would explicitly exclude certain nationalities (from the global South) in their job descriptions.

Let us now look at the second dimension of intimacy at play: the household not only as a place, but also as an object of work. This is particularly the case for platforms such as Figure Eight/Appen or *Clickworker* which specialize in developing and optimizing machine learning systems and offer their customers the flexible integration of human labour into semi-automated work processes. The demand for such “human-in-the-loop” services is generated by companies that develop, for instance, automated vehicles or digital speech assistants for the “smart home”. These companies are turning to crowdwork platforms not only for financial reasons, but also because they increasingly need heterogeneous data to be able to market their products more broadly – such as speech assistants that are able to understand the instructions of elderly people, children, or people with dialects and accents, or facial recognition software that is able to recognise the diversity of human faces.

On microtask platforms, this need is reflected in a variety of gigs that call on crowdworkers to include their household in the activities, such as having their children or elderly relatives record sample sentences, taking pictures of religious symbols in the home, recording videos of their private living spaces or classifying those of other workers. Other tasks relate to the crowdworkers’ own identity, asking them to take pictures of themselves or their passports for example. The platform positions itself here as a “mediator of intimacy”³⁴, offering its customers an insight into the intimate, private spaces of crowdworkers around the world. Intimacy, it could be argued, thus becomes a commodity to which platforms provide access. The individual workers, in turn, appear to the platforms’ customers only as an anonymous mass of images or voice files, as IP addresses and as marked by statistical categories such as nationality, gender, or language skills.

CONCLUSION: CROWDWORK AND THE CRISIS OF SOCIAL REPRODUCTION

Crowdwork platforms present themselves as the ideal solution to multiple crises of social reproduction. While offering clients access to a

³⁴ Feona Attwood, Jamie Hakim and Alison Winch, “Mediated Intimacies. Bodies, Technologies and Relationships”, *Journal of Gender Studies*, 26 (3), 2017, pp. 249–253.

low-cost, flexibly scalable workforce available at any time of day or night, they mobilize workers with promises of temporal flexibility, a better work-life balance or a mobile lifestyle.

The first part of this article showed how platform narratives affect the motivations of crowdworkers and are linked in specific ways to their respective local conditions of reproduction. Crowdworkers are often (partly) bound to a specific place and seek income strategies in the global digital economy beyond the local ‘offline’ labour market. While some want or need to stay at home due to care obligations, their own physical limitations and/or health problems, others are restricted in their mobility or job search due to visa regimes, bans on working, or other exclusions.

Different dimensions of the crisis of social reproduction can play a role here: from a lack of public infrastructure for childcare or an underfunded state healthcare system to old-age poverty, unemployment and racist exclusions on the labour market. These are all factors that worsen local reproductive conditions and make digital home-based labour on global platforms attractive despite its precarious nature.

These local conditions of reproduction of course differ depending on various factors such as social status, financial resources, citizenship, access to state benefits, and geographical context. As an example, in my sample there are more crowdworkers in Romania than in Germany who consider crowdwork a long-term career prospect and who work full-time on platforms. This could be related to the fact that the expectation of a functioning welfare state as a solution to one’s own reproductive crises, including with regard to healthcare or the pension system, is weaker in Romania than it is in Germany.³⁵ Restricted access to the welfare state as well as the labour market in general may well also explain the proportion of migrant workers in Germany involved in crowdwork. In other words, where the likelihood of a ‘regular’ or ‘traditional’ employment relationship or welfare state support are lower, self-employment on global crowdwork platforms becomes more attractive. Moreover, this work can sometimes pay an even higher (gross) wage than that paid in the ‘traditional’ labour market today.

However, the decision to take up crowdwork cannot be reduced to economic constraints and/or social exclusions. There is always an interplay of different dimensions of the crisis of social reproduction. In a similar way, the editorial to this special issue argues that an economic

³⁵ Dubal as well as Krzywdzinski and Gerber make a similar argument regarding the relationship between the choice of crowdwork and the characteristics of the welfare state in Germany and the US. Cp. Dubal, *The Time Politics of Home-Based Digital Piecework*. Cp. also Martin Krzywdzinski and Christine Gerber, “Varieties of Platform Work. Platforms and Social Inequality in Germany and the United States”, *Working Paper Weizenbaum Series*, 7, Berlin, 2020.

crisis is always both: “a crisis in the capacity to meet *needs* and *desires* in the context of scarce resources”. In her conceptualisation of social reproductive crisis, Julia Dück distinguishes between a “material” and a “subjective” dimension. Material dimensions of the crisis of social reproduction refer to a situation in which people have difficulty reproducing themselves, or are no longer able to do so – they can no longer pay their rent, for example, or take care of their children, or pay for healthcare. The subjective dimensions of the crisis of social reproduction comprise the different experiences and strategies of subjects in dealing with these material situations of crisis – for example, when people are forced to change their established everyday practices, habits, or ways of thinking.³⁶ The motivations of crowdworkers outlined in this article provide examples of how platform labour is used as a strategy for dealing with both these interlinked material and subjective crises of reproduction. They reveal how we need to consider both these dimensions of crowdworking, and of the reasoning behind decisions to perform digital home-based labour – subjective as well as material. This thus includes various economic and other constraints, workers’ singular biographies and forms of life, as well as their previous experiences in wage work.

The second part of the text looked at the concrete everyday working life of crowdworkers and asked what the temporal flexibility proclaimed by the platforms actually means for the workers. Contrary to the “anyplace-anytime paradigm”³⁷ propagated by platforms, space and time are by no means becoming obsolete in the everyday life of crowdworking. They structure and organise digital labour, just like more traditional forms of work.³⁸ Platforms play crucial roles in this structuring: through their digital infrastructures, new forms of semi-automated control, and the creation of a global oversupply of labour, they force workers to be constantly available, potentially dragging them into new crises of reproduction as little time is left for the work of care or the experience of leisure. This constant demand for availability clearly benefits the platform’s customers: they can use platforms to incorporate workers from different time zones into their internal workflows, and on a temporary basis. The current business model of crowdwork platforms is predicated on the overlap of home and workplace described here, as this is the only way of organizing such flexible access to workers’ time

³⁶ Cp. Dück, “Mehr als Erschöpfungen im Hamsterrad – Soziale Reproduktion und ihre Krise(n)”.

³⁷ Cp. Mascha Will-Zocholl, Jörg Flecker and Philip Schörpf, “Zur realen Virtualität von Arbeit: Raumbezüge digitalisierter Wissensarbeit”, *AIS-Studien*, 12 (1), 2019, pp. 36–54.

³⁸ Cp. Elgen Sauerborn, “Digitale Arbeits- und Organisationsräume. Räumliche Dimensionen digitaler Arbeit am Beispiel Crowdworking”, *Zeitschrift für Arbeitsforschung, Arbeitsgestaltung und Arbeitspolitik*, 28 (3), pp. 241–262.

resources. It also allows passing the costs of reproduction on to the workers even further. Companies neither have to pay costs for working equipment or offices, for example, nor do they have to worry about occupational health and safety or training.

To conclude, these observations on the relation between crowdwork and multiple crises of social reproduction can be summed up by the following argument: the business model of crowdwork platforms is based on exploiting different local conditions of reproduction. In other words, platform capitalism leverages the fact that people are partly bound to a particular place for a wide variety of reasons. Platform companies incorporate the various forms of immobility and precarity into their recruitment strategies for new workers, along with a recognition of their desires for flexibility, autonomy, and to combine wage labour and reproductive activities. However, their business model is usually not exclusively based on exploiting different local conditions of reproduction – including as this affects the price of labour – but also their “heterogeneity”³⁹. Crowdwork platforms offer their clients both a cheap and a flexible as well as a culturally diverse workforce that can, for example, feed AI systems with local languages and cultural practices. Private homes then become, in some cases, not only the place but also the object of work. AI microtask platforms commodify intimacy by providing their clients access to private data, faces, belongings, and attitudes of crowdworkers around the world.

But it is not only capital that creates these new times/spaces of work through crowdwork. The workers themselves also produce, “multiply”⁴⁰ and manipulate new spaces to their own advantage. Crowdworkers create for instance transnational spaces of (re)production by sharing platform work with family and friends. They produce new outsourcing chains by renting out their accounts, and develop strategies for virtual labour migration, such as simulating a different location in order to gain access to higher wages or better tasks on the platforms. Mark Graham and Mohammad Amir Anwar point to similar practices of digital workers and conclude: “While it is true that capital can produce space, so too can labor”.⁴¹

³⁹ Altenried, *The Digital Factory*.

⁴⁰ Will-Zocholl et al., “Zur realen Virtualität von Arbeit: Raumbezüge digitalisierter Wissensarbeit”, p. 44.

⁴¹ Mark Graham and Mohammad Amir Anwar, “Digital Labour”, in James Ash, Rob James and Agnieszka Leszczynski (eds.), *Digital Geographies*, London, SAGE, 2019, pp. 177–187, here: p. 187.