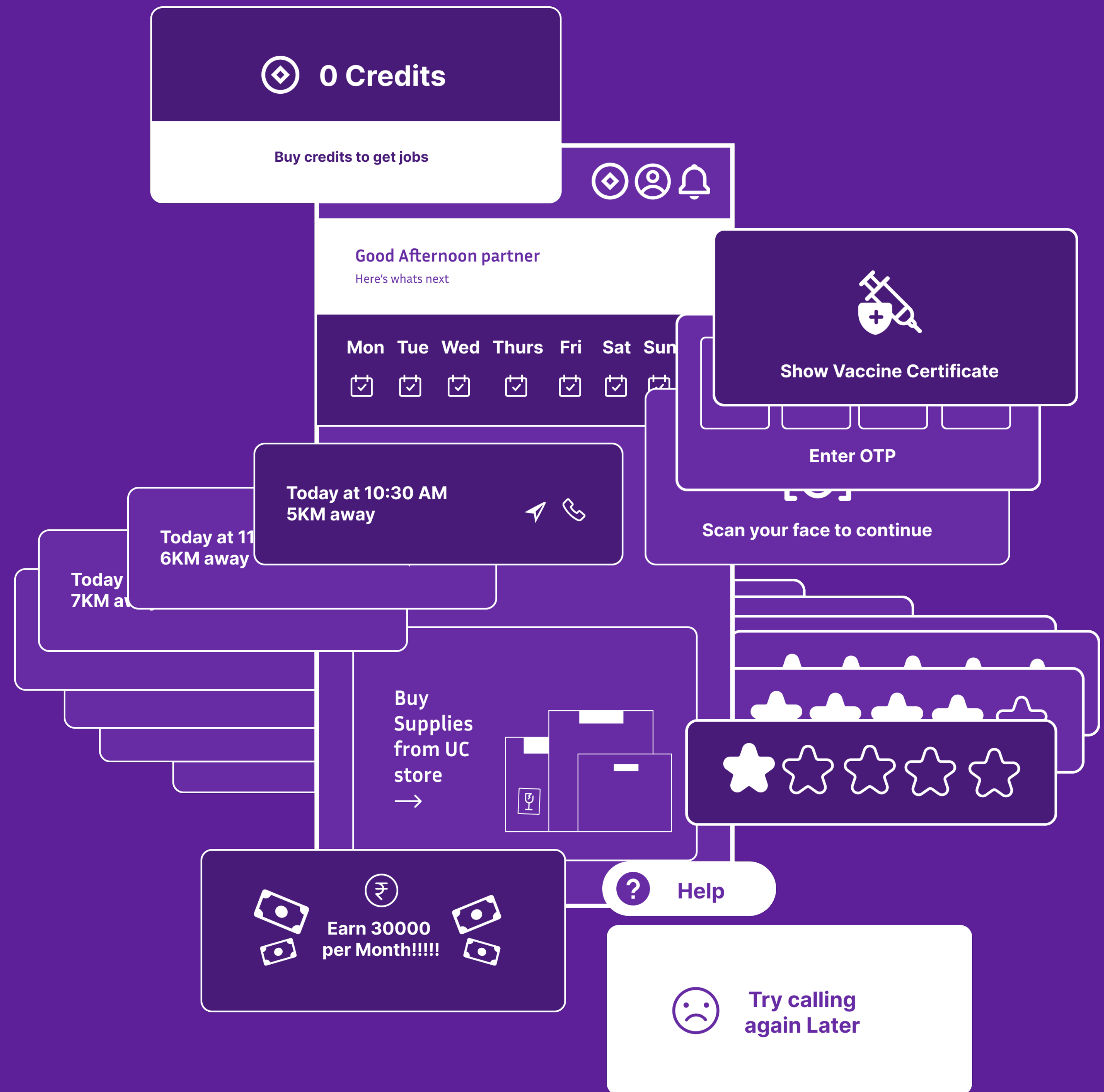


Designing Domestic Work Platforms

A Case Study of Urban Company



August 2022

Center for Internet & Society

**Designing domestic and care
work platforms: A case study of
Urban Company**

Published August 2022



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About CIS

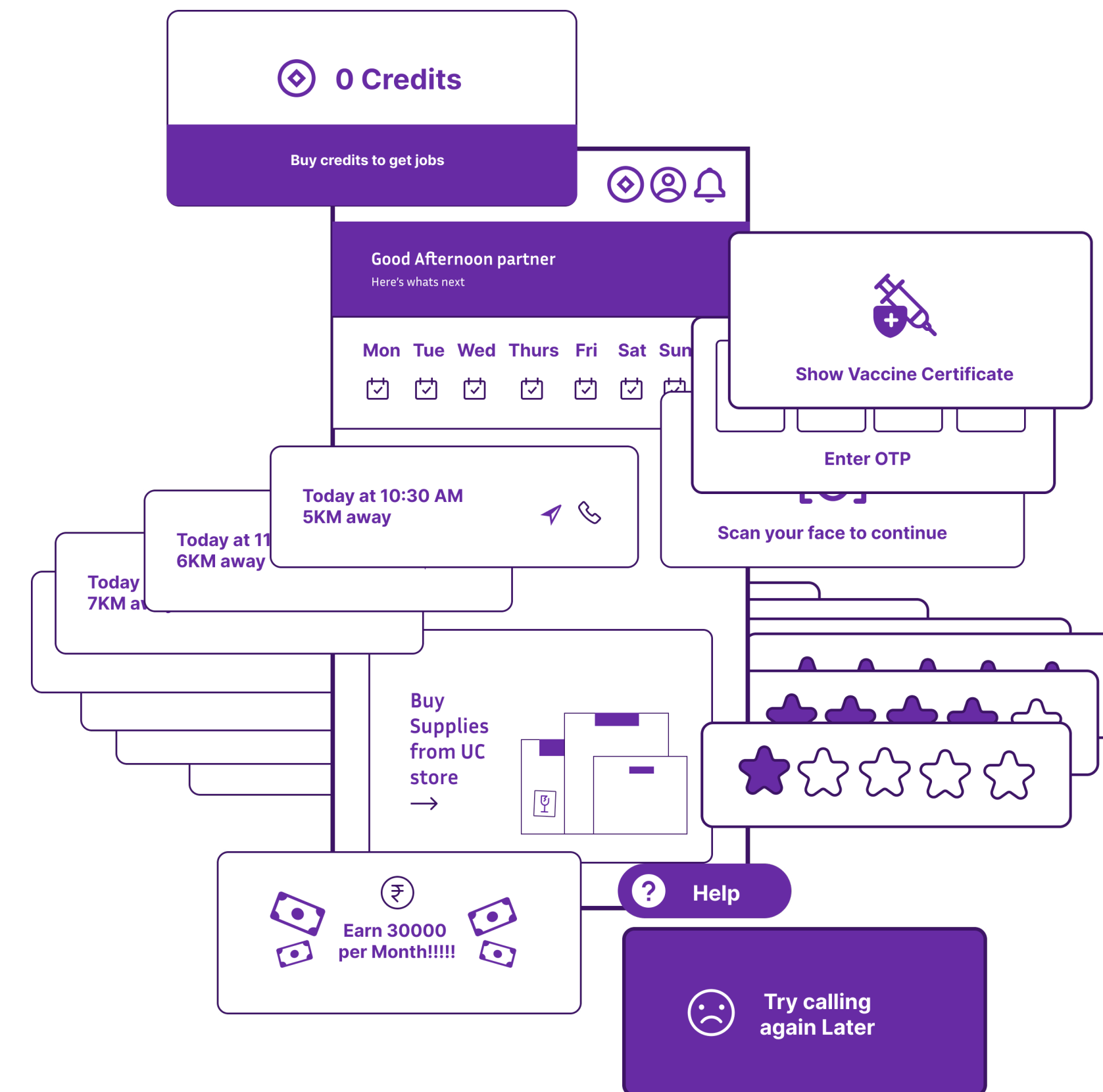
The Centre for Internet and Society (CIS) is a non-profit organisation that undertakes interdisciplinary research on internet and digital technologies from policy and academic perspectives. Through its diverse initiatives, CIS explores, intervenes in, and advances contemporary discourse and regulatory practices around internet, technology, and society in India, and elsewhere.

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Introduction



According to the International Labour Organization (ILO), there are between 20 million and 80 million workers engaged in domestic work in India.¹ Domestic work has traditionally been an informal sector with customers and workers depending on local and community networks to be connected with each other. Over the last few years, digital platforms have gained ground in connecting domestic workers with tech-savvy urban dwellers.²

¹ About Domestic Work, https://www.ilo.org/newdelhi/areasofwork/WCMS_141187/lang--en/index.htm

² Kadakia, P. M. (2016, 21 February). Bai on call: How home service apps are changing domestic help market. Hindustan Times. <https://www.hindustantimes.com/more-lifestyle/bai-on-call-how-home-service-apps-changing-the-maids-market/story-s6zz6kmWw1aEamZ1yLxjaL.html>

These platforms promise customers the ease and convenience of moving yet another aspect of their lives online, while they promise to give workers more flexibility, control over their time and increased earnings.

However, we show that this introduction of technology brings with itself the same problems that haunt other sectors of platform-mediated gig work. On-demand platforms seek to exert control over most points of the service delivery process, including job distributions, client selection, worker pay and performance evaluation, all the while relegating workers to an independent contractor status.

Physical design of public spaces has been known to actively discourage vulnerable populations from spending time there in the form of “hostile architecture”.³ The literature on the effects of the design of virtual platforms and processes for digitally mediated domestic and personal services work is comparatively sparse. This project seeks to investigate aspects of platform design that directly affect how workers experience their workplace.

Complaints about lack of control of their own time; unpredictable algorithms; unrepresentative evaluation metrics (like rating systems) that unfairly favour customers; workplace surveillance tools that harvest data to control workers’ behaviour and often actively detract from the work being done; a lack of channels to resolve workers’ grievances come up over and over again

3 Cloeter, M. (2019, 8 November). ‘Hostile Architecture’: How Public Spaces Keep the Public Out. The New York Times. <https://www.nytimes.com/2019/11/08/nyregion/hostile-architecture-nyc.html>; Wallace, E. (2018, 21 March). What’s Behind the Uptick in Hostile Architecture? Architectural Digest. <https://www.architecturaldigest.com/story/hostile-architecture>

across sectors of digitally mediated work, including ridesharing,⁴ delivery⁵ and freelance knowledge work⁶.

In addition to these, domestic workers on digital platforms have to contend with their own unique contexts and challenges.⁷ Domestic workers in India largely belong to structurally oppressed gender and caste identities that also intersect with socio-economic marginalisation. Low levels of education and digital literacy exacerbate the information asymmetry between workers and platforms, depriving workers of the tools they need to understand platform operations.

Existing social inequalities in the sector are replicated and exacerbated by tools like filtering and rating systems that are easily influenced by pre-existing biases and stereotypes. Previous work also shows that workers are subjected to multiple modes of increased surveillance, not just as gig workers but also as Dalit, Bahujan or Adivasi women. This increased surveillance offers no help to them and is often used to entrench existing power relations. Finally, workers are left with no control over data that

4 Rosenblat, A., & Stark, L. (2016). Algorithmic Labor and Information Asymmetries: A Case Study of Uber’s Drivers. *International Journal Of Communication*, 10. <https://dx.doi.org/10.2139/ssrn.2686227>

5 Woodcock, J. (2020). The algorithmic panopticon at Deliveroo: Measurement, precarity, and the illusion of control. *Ephemera*, 20(3). <http://www.ephemerajournal.org/contribution/algorithmic-panopticon-deliveroo-measurement-precariety-and-illusion-control-0>

6 Jarrahi, M. H., & Sutherland W. (2019). Algorithmic Management and Algorithmic Competencies: Understanding and Appropriating Algorithms in Gig Work?. In N. G. Taylor et al. (Eds.), *Information in Contemporary Society*. iConference 2019. Lecture Notes in Computer Science, 11420. Springer, Cham. https://doi.org/10.1007/978-3-030-15742-5_55

7 Rathi, A., & Tandon A. (2021). Platforms, Power, & Politics: Perspectives from Domestic Work in India. Centre for Internet and Society. <https://cis-india.org/raw/platforms-power-and-politics-perspectives-from-domestic-and-care-work-in-india>

they produce.⁸ These conditions are common across the Global South as work done in South Africa⁹ and the Philippines shows.¹⁰

For this report, we set out to find how workers and customers navigate the introduction of technology into the domestic and personal services sector, which in India, has historically functioned through informal word-of-mouth networks and employs people largely belonging to structurally marginalised communities.

We draw from existing narratives of worker experiences in various sectors to identify common challenges that workers face while interacting with platforms, and the technological choices that perpetrate these challenges.

Responding With Critical Design

To understand the overarching issues with the design of platforms used in the domestic and care work sector, there is need for a detailed understanding of the apps and interfaces that workers use to get assignments. Further, designers and developers of the apps also need to internalise a consciousness of workers' caste and class realities to be able to appropriately design a product that adheres to their needs.

The “walkthrough method” provides a framework for establishing an “environment of expected use” and identifying the characteristics of an interface by using methods from Science and Technology Studies and Cultural Studies.¹¹ The primary method in this is the technical walkthrough where researchers act as users and generate field notes for each step in the process. Interface elements and features can be treated as “actors” and the app itself as a “mediator”.¹²

The walkthrough method allows us to interrogate the app as a site of re/production of power inequalities as experienced in everyday

8 Athreya, B. (2020). Slaves to Technology: Worker control in the surveillance economy. *Anti-Trafficking Review*, 15, 82-101. <https://doi.org/10.14197/atr.201220155>; Gupta, S. (2020). Gendered Gigs: Understanding the gig economy in New Delhi from a gendered perspective. *Proceedings of the 2020 International Conference on Information and Communication Technologies and Development*. <https://doi.org/10.1145/3392561.3394635>

9 Tandem Research & the Cloudburst Group. (2020). *Gig Work on Digital Platforms. Case Study 3: SweepSouth: Platform-Based Domestic Work*. USAID. <https://tandemresearch.org/assets/SweepSouth-Case-Study-Final-2020-05-15.pdf>

10 Garcia, L., et al. (2020). *Digitization and Domestic Work: The Policy Environment in the Philippines*. IT for Change. <https://www.fma.ph/wp-content/uploads/2020/04/Philippines-Research-Report.pdf>

11 Light, B., Burgess, J., & Duguay, S. (2018). The walkthrough method: An approach to the study of apps. *New Media & Society*, 20(3), 881-900. <https://doi.org/10.1177/1461444816675438>

12 Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford University Press.

work (juxtaposing with the customer app), while situating this in the broader context both through platform architecture and governance, and the socio-historical contexts of domestic and informal service work in India.

Specifically, we set out to answer three main research questions:

- 1. What are the values encoded in the design of domestic work apps?**
- 2. What can we infer about the technical interface and information communicated by the app (and thus its creators) and how it seeks to affect the nature of the interactions that it facilitates?**
- 3. Are there conflicts between worker aims and the app's programming? How do they get resolved?**

The results from this research will help readers gain a better understanding of the working conditions as well as the changing nature of domestic work. Design of a technology is never neutral and always has some values encoded in it. We hope this research will help illuminate the values encoded in the interface of platform-based domestic work, highlighting the power structures they uphold and break away from.

We hope to help practitioners and students of technology design be more conscientious about the products and processes they develop, to result in future tech that is good for the communities.

Research Methods

We conducted this work in two parts:

First was a detailed walkthrough of the app¹³

We divided the entire process of booking and completing a service into five stages:

1. Onboarding and related logistics
2. Booking and pre-task preparation
3. Completing the task
4. Grievance redressal
5. Finances

Then we investigated the customer and worker apps on each of these service stages to find the affordances of app design. We focus our research on the app Urban Company, which is the largest platform for domestic work in India by number of users, workers and volume of capital investment. While there are other companies in this sector, their apps are not as extensively built and their worker networks fluctuate. The consolidation of apps currently leaves Urban Company as the prominent player in this industry.

As part of the walkthrough, we also evaluated the “environment of expected use” to contextualise the app’s existence in the ecosystem and how the company represents itself in various different contexts – company blogs, financial documents, and advertisements to customers and workers.

Finally, we validated our learnings in the field to contextualise app design in the real world.

We conducted qualitative semi-structured interviews to gain first-hand perspective on how the design of the app impacts how workers carry out their jobs, and how they navigate the techno-social aspects of their work.

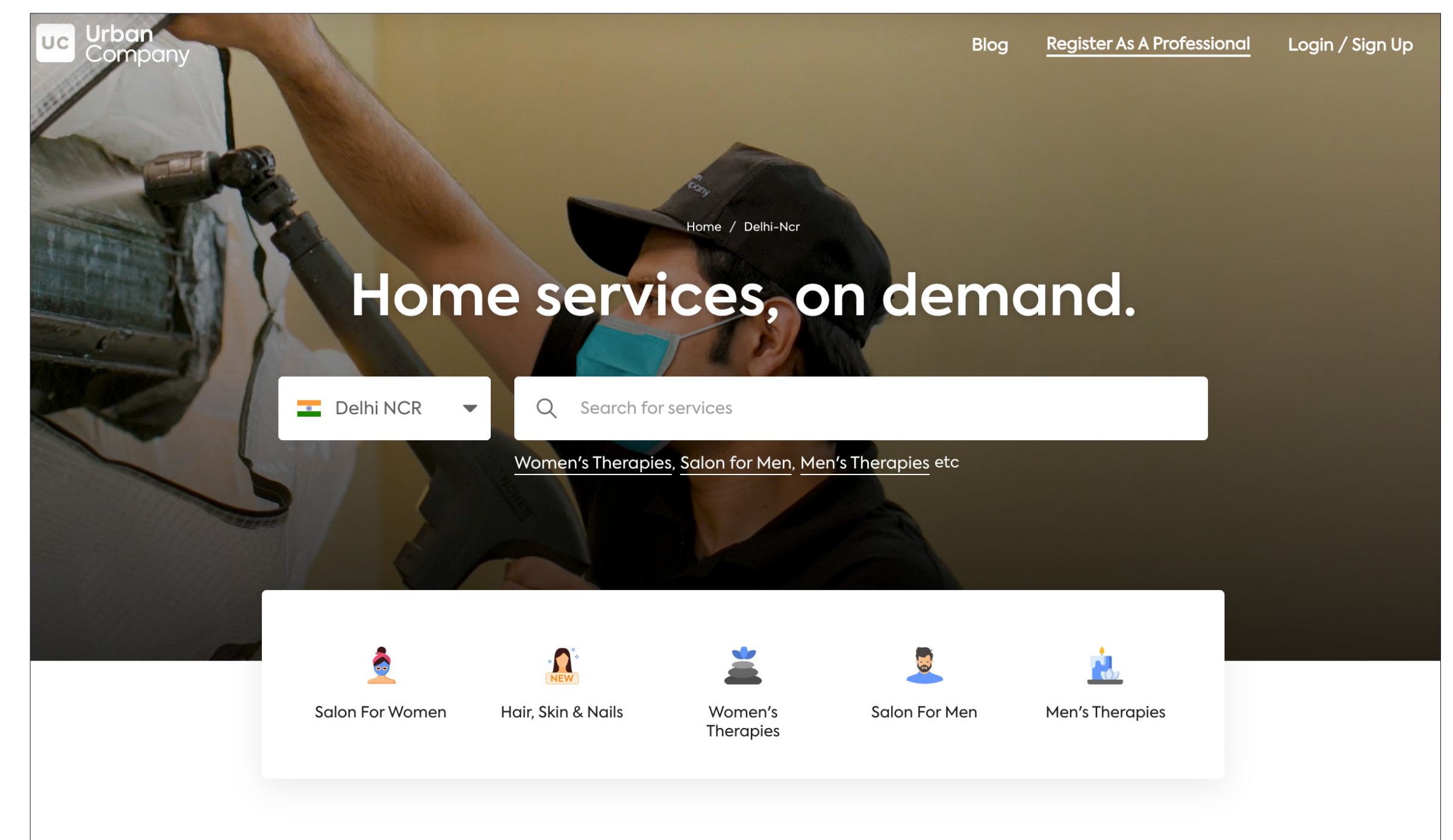
¹³ Light, B., Burgess, J., & Duguay, S. (2018). Op. cit.

Observations & Analysis

App Overview

Urban Company describes itself as an app that lets customers request home services like house cleaning, furniture and appliance repair, house painting besides personal services (salon and spa). According to their Crunchbase listing, they are a “marketplace for freelance labour”.

Fig 1 Urban Company's Homepage
(<https://www.urbancompany.com>). June 2022



Environment Of Expected Use

Through the app walkthrough, and analysis of the various artefacts that make up the environment of expected use including governance documents, business listings, company advertising, media interviews with founders and employees, company communications targeted towards multiple stakeholders, it is clear that Urban Company sees **the people booking a service on their platform as the primary users** of the application and the services they provide.

In official governance documents that describe the relationship between customers, the company and workers, the customer is referred to as the “user” while workers are “partners”. The service that is actually provided to these “users” is the app itself, which connects “users” with “partners”.

This specification is important because it is a clear communication of how Urban Company sees the services it provides and the role it aims to fill in the market. Workers are responsible for the services they provide and customers are responsible for booking and payment, with the company playing a mere middleman that connects buyers with the vendors. As we will see later in the report, this framing is complicated by the realities of the service delivery process.

The customer app is only available in English, which assumes that the primary audience is fluent in the language and would have no problems interacting with the app. In India, fluency in English is predominantly the forte of dominant castes, and upper and middle classes.¹⁴ This, combined with smartphone access in urban areas, and the disposable income and digital literacy to afford app-based services across multiple apps, puts the imagined “user” at the intersection of various class and caste privileges. Some of these privileges – like disposable income and spacious urban homes – are obvious in the marketing materials used and around the narratives of professionalism in services rendered and behaviours inhabited.

Fig 2

Left: Customer getting a manicure while relaxing in their home.

Right: Customers with spacious home in the background, typically affordable to upper middle classes in India. Urban Company Youtube. June 2022

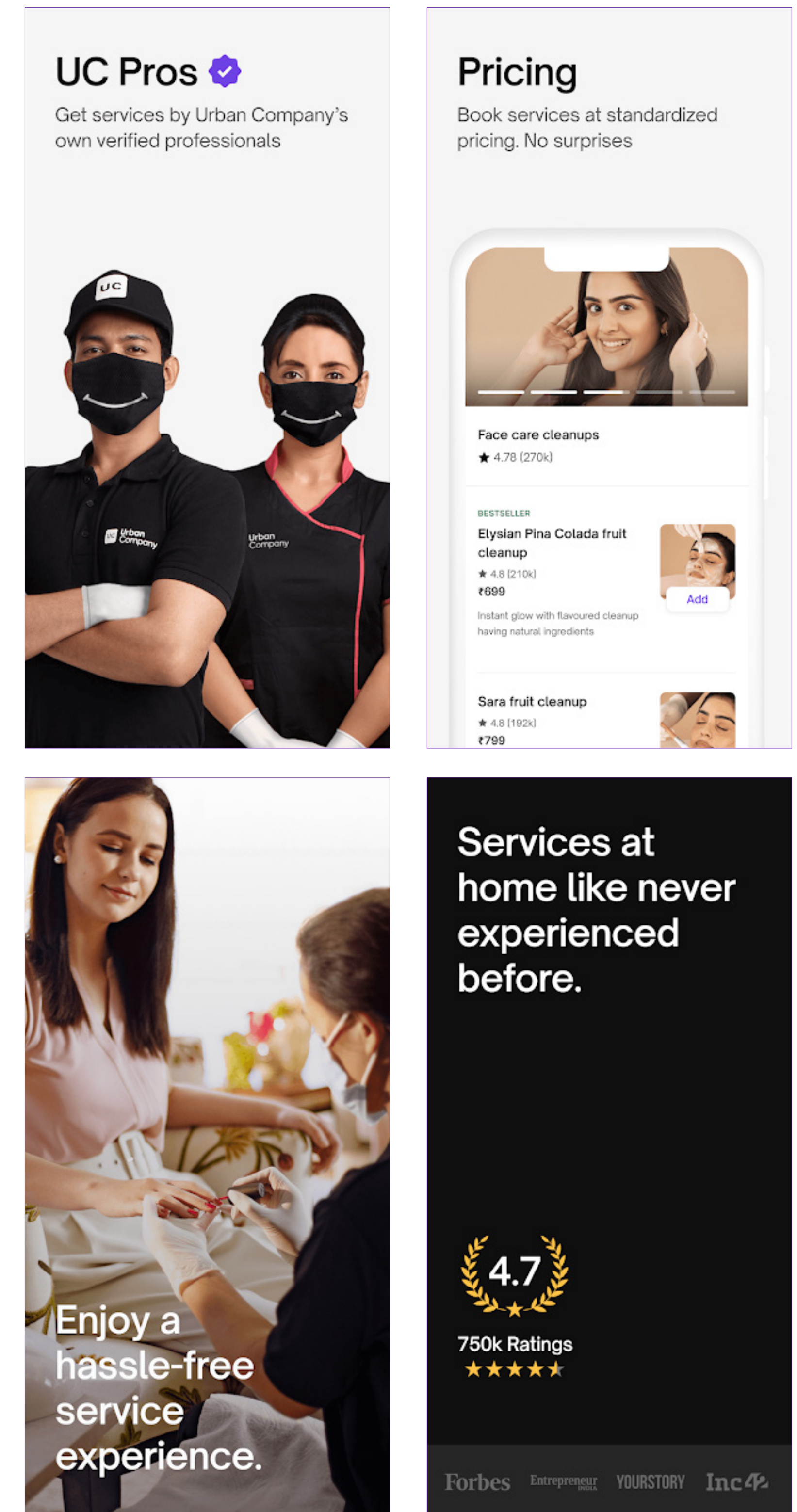


14 Mukherjee, J. (2010). The development of the English language in India. In Kirkpatrick, A. (Ed.), The Routledge Handbook of World Englishes. Routledge. <https://vulms.vu.edu.pk/Courses/ENG506/Downloads/Andy%20Kirkpatrick-The%20Routledge%20Handbook%20of%20World%20Englishes%20%28Routledge%20Handbooks%20in%20Applied%20Linguistics%29%20%282010%29.pdf#page=190>

Previous work by this research team has shown how platforms use concepts of skills and professionalism to cast traditional domestic work as unskilled, and only with the addition of a technology platform and specialised tools can the same work be classified as skilled work.¹⁵ Urban Company explicitly reinforces this assumed lack of skills of traditional domestic workers in their advertising to customers. In a series of videos advertising cleaning¹⁶ and appliance maintenance¹⁷, workers are shown to acknowledge their “lack” of skills in completing the service they have been hired for and directing the customer to the Urban Company app to book a professional worker for a markedly better service. This professional – usually a man – then comes to the service site wearing a branded uniform and carrying specialised materials that are implied to be necessary for a job well done. This further contributes to the devaluation of feminised work, especially traditional domestic work, since mostly men are shown to be skilled cleaners with specialised equipment and materials.

In addition to an implied sense of professionalism, the descriptions on the app stores and the general design of the app promises the convenience of technology with a safe and seamless experience to its customers.

Fig 3
Promotional screenshots
from UC customer app
listing on Google Play Store
June 2022



15 Rathi, A., & Tandon A. (2021). Op. cit.
16 See, for example: <https://youtu.be/T8ADvJSruUA> and <https://youtu.be/8HYBiZ6xY2o>
17 <https://youtu.be/6wF8oxR-xck>

On the other hand, **workers are promised** increased earnings, flexibility of work and empowerment over their work-life. Imagery of happy workers in Urban Company uniform with messaging like “Become your own boss” and “Double your earning” populates the worker app. The imagery evokes the expectation of an organised sector job with stable income for the workers in a largely unorganised sector which continues to have poor worker security.¹⁸

To provide on the promise of a safe and convenient experience to their intended customers, Urban Company employs two major strategies – **standardisation and building customer trust.**

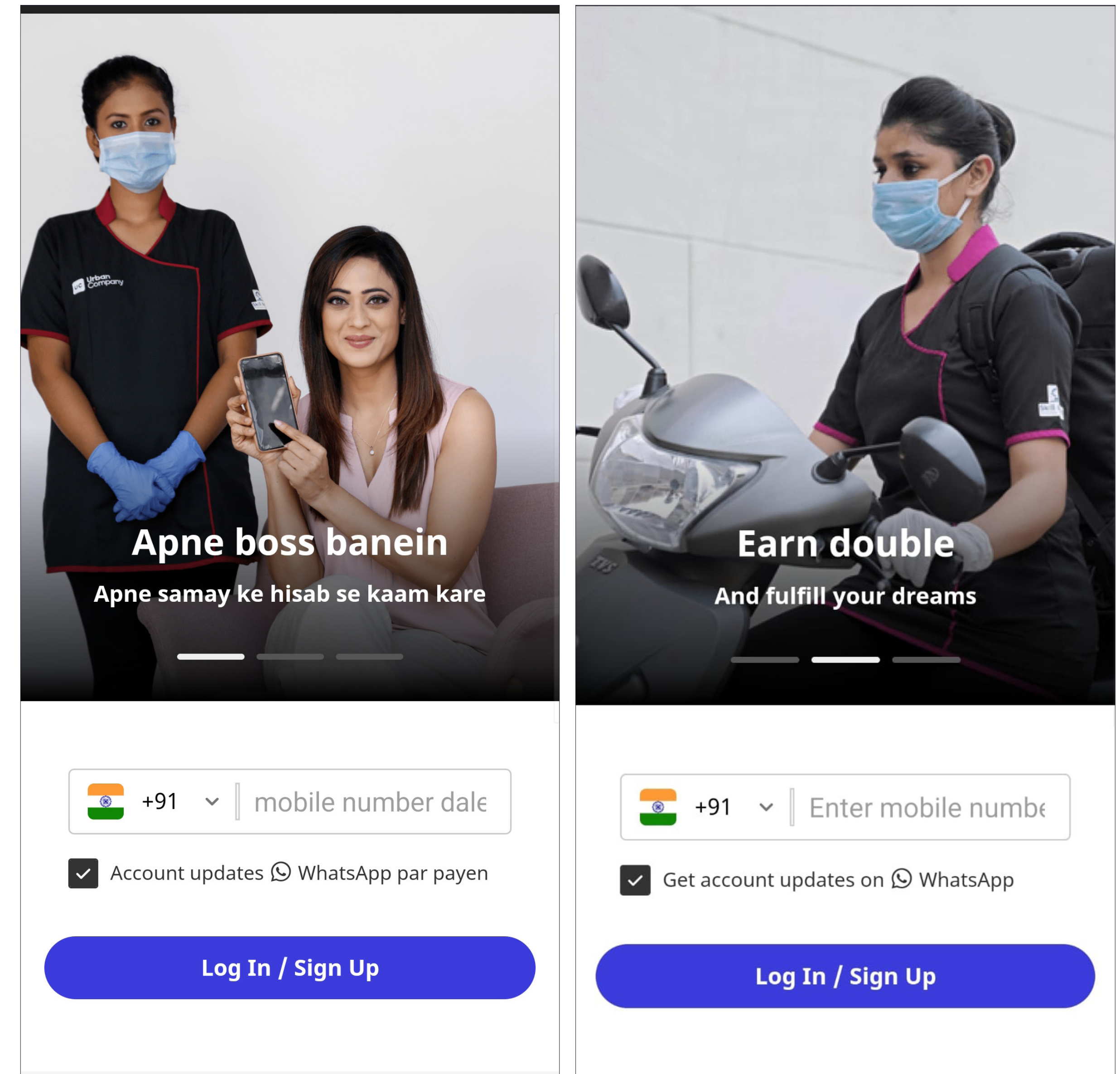


Fig 4 Onboarding screen for potential UC workers with the tagline: “Become your own boss, control your own time” and “Earn double, and fulfil your dreams” UC Worker App. May 2022

18 Ravi, P. (2021, 7 September). 60% Domestic Workers Were Not Paid In Lockdown, Faced Poverty, Debt, Hunger. IndiaSpend. <https://www.indiaspend.com/womenwork/60-domestic-workers-were-not-paid-in-lockdown-faced-poverty-debt-hunger-773469>

Standardisation

The company’s model, like other on-demand models, aims to standardise services across categories to the extent that the worker is actually incidental to the service delivery process. Breaking the service down into smaller parts that are **reproducible** and **measurable** works to ensure the same customer experience is delivered no matter where and when the service is booked. It is an effort to turn the service delivery process into one that the technical system can measure and surveil. However, as we shall see later, this emphasis on creating a uniform experience leads to instrumentalising workers; using them as only a means to an end (convenience and service delivery), forces workers to remove all aspects of their individuality, and ignores any work that is not machine readable.

For customers, this standardisation shows up in the way the app is organised into service categories like salon, spa, appliance repair, etc. with accompanying videos, pictures and text to set expectations about the services.

On the worker end, the costs of this standardisation are much higher and pointedly invisible. A contextual feminist analysis of work allows us to explore the unpaid physical and emotional labour that comprises an atomised unit of work that gets delivered to customers.

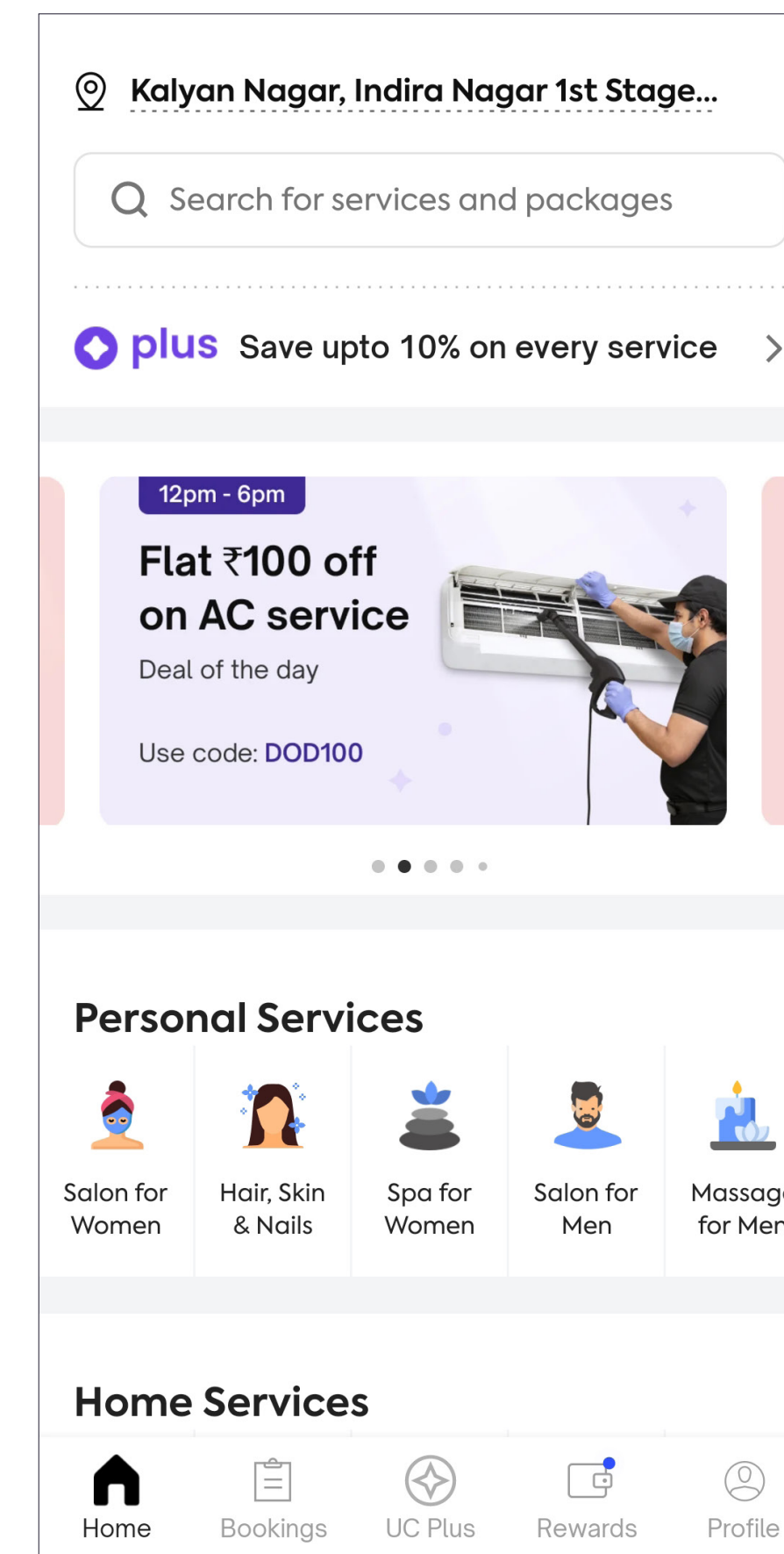
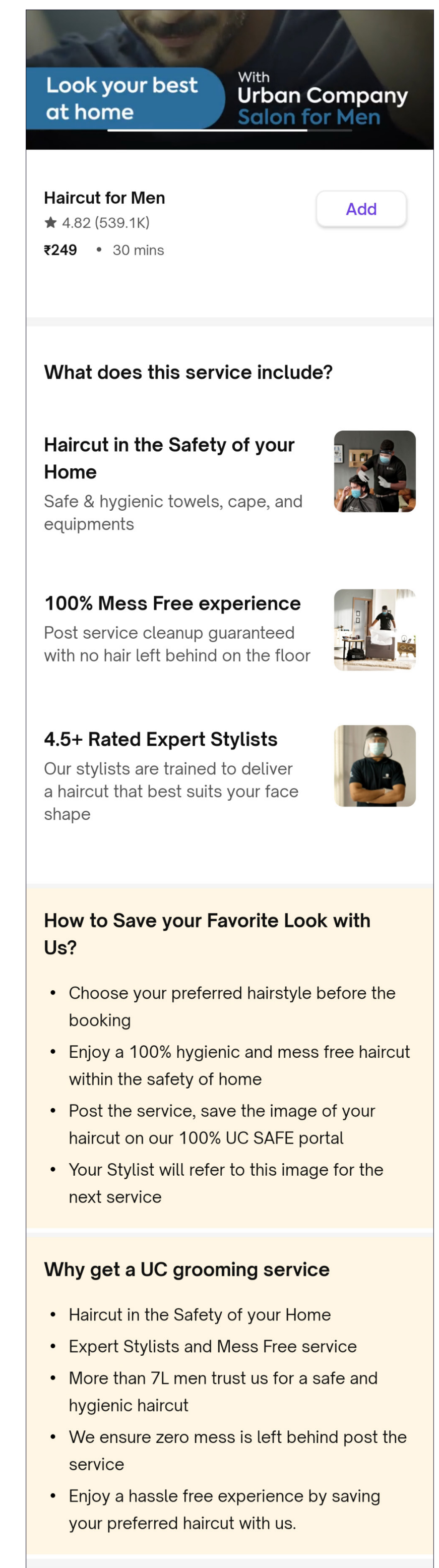


Fig 5

Left: Landing page for customers with a carousel of ongoing offers and available categories.

Right: Explanation of standardised service for customers booking a haircut at home.

UC Customer App. May 2022



Upfront Costs to Workers: Trainings and Credits

In practice, standardisation is operationalised by training workers before they are allowed to access jobs on the platform. Company communication explains how the trainings work:

[The] professional is up-skilled on UC's standardized way of delivering services with safe practices while creating customer delight. It has classroom training, behavioral training, on-job scenarios, mock diagnosis for appliances, mock customer interactions, app training etc.¹⁹

Workers have told us that the usefulness of these trainings is mixed at best. Given prior work experience requirements in the more established service categories, many have found the skills training to be repetitive. The response towards the soft skills part of the training has been mixed as well with workers with more experience already skilled in customer interaction, while those newer to door-to-door services have found them to be more useful.

¹⁹ Teotia, R. (2020, 29 January). How Urban Company is using Microsoft's cognitive APIs to build Heimdall – the gatekeeper! Urban Company. <https://tech.urbancompany.com/how-urban-company-is-using-microsofts-cognitive-apis-to-build-heimdall-the-gatekeeper-8d35be8fd5e3>

Maya (name changed), a beauty worker, told us:

Because you are working door-to-door so it's about the kind of experience you give which everybody does not understand. Few of them [other workers] come absolutely new to home service work and they are completely raw [in terms of customer interaction]. But with me it was not like this. [...] I have worked in a big parlour as well as in small ones also. So I did not face any problems.

Regardless, the software is programmed not to send any leads to workers until they have completed the required training. These trainings are uncompensated and mandatory, which can be untenable for workers, particularly women and oppressed caste workers, who do not have support structures in place to be able to absorb these costs. In addition to lost wages through existing employment, these rigid (re)training sessions increase the burdens of structuring unpaid care responsibilities, especially for women workers. Ananya (name changed), a home chef said:

I have three kids and I also have to send them to school. Earlier I was already working [as a chef]. [...] So I was worried about how to leave this work all of sudden. Then training was supposed to start at 9 am and go till 6.30 pm. I didn't know how I would manage my house or my work. I took leave for 15 days from two houses that I used to work at [to be able to attend the training].

Credits and Shop

Workers are not only uncompensated for the time they spend in these trainings, they also need to absorb a very high upfront cost to be able to buy specialised materials and uniforms, besides booking jobs on the app.

Workers also need to buy “credits”, which are essentially in-app money they use to **buy supplies** from the Urban Company marketplace and **reserve a job** they will be working at. According to Roshan (name changed), an appliance repair mechanic:

Before taking the interview, they [the platform] ask to submit 2000/- rs to them. Like you get recharge? So you get credits for that. If you pass, then you get the credit in your account, and if you fail the interview, then that 2000 is returned to your account.

Workers need to buy these credits upfront or they can take a loan from the company. This, however, reduces their take-home pay as the payment algorithm is programmed to automatically take a cut of their earnings as loan repayment. Through credits and an in-app shop, Urban Company makes a profit from the worker’s end, in addition to charging platform fees to find work. This makes both customers and partners monetised users of the platform, while treating only the customers as “users”.

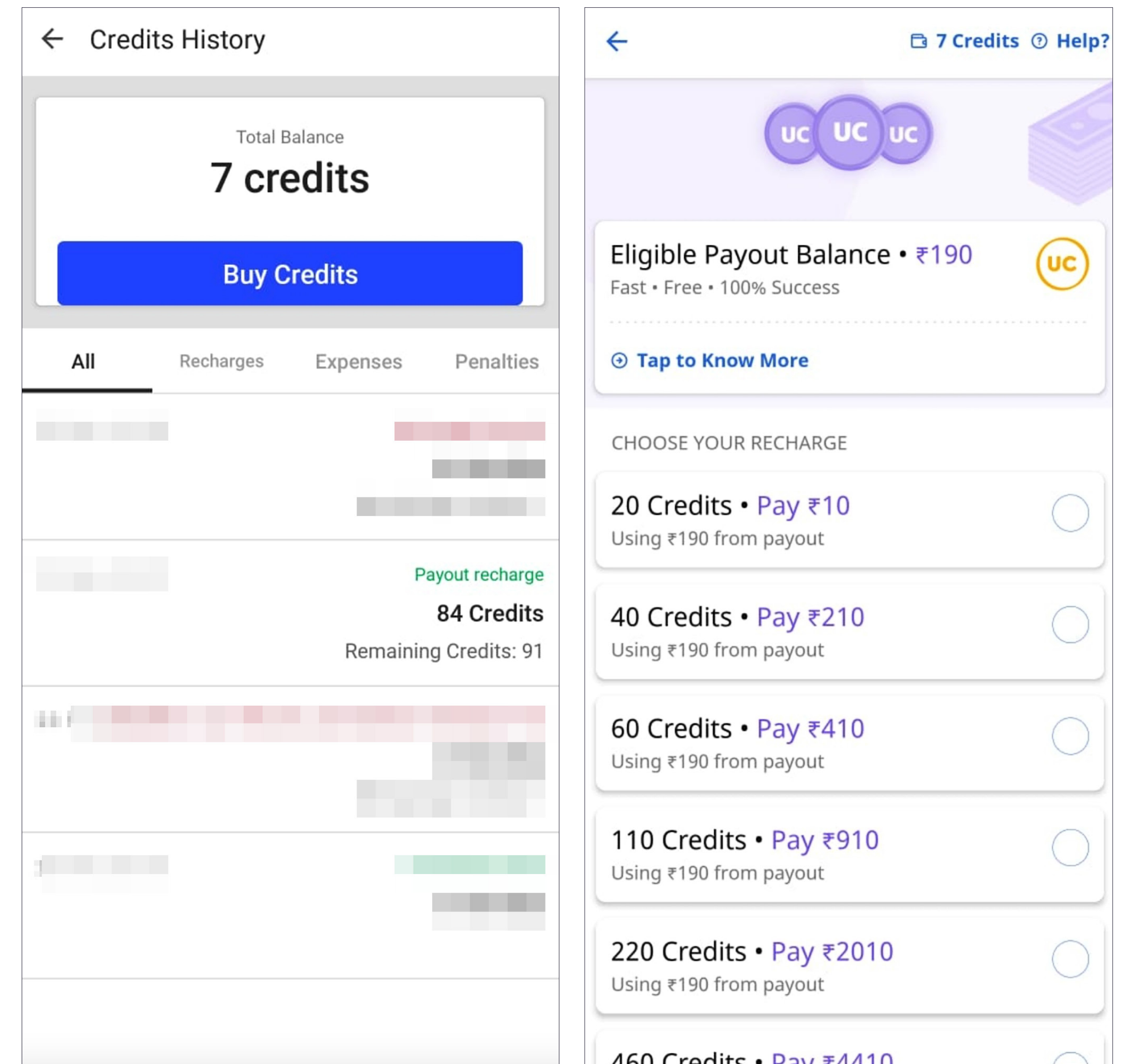


Fig 6
Left: Credit history screen showing a breakdown of credit balance and usage with an option to buy more credits.
Right: Credit recharge screen to buy UC credits in using either bank or earnings from jobs received through the app .
UC Worker App. May 2022

Socio-Technical Effects of Metrics: Gaming the System to do the job

Standardisation of service quality and the expectation of uniformity of services that are essentially personal helps cement a brand identity Urban Company benefits from greatly in its interactions with customers. The costs of this brand identity, however, are borne by the unpaid emotional and physical labour of the workers as they change and adapt their work styles and schedules to fit into the technological and service expectations created by the company.

Standardisation according to platform standards is often unsuitable to the nature of work, and that is especially the case with personal services. Just because **platforms do not recognise and record the variability of human experiences, it does not mean they do not exist.** Workers are faced with situations unanticipated by the technology and are forced to find solutions that work for them with no available support.

Temporal rigidity of platform design

The platform's exploitative design includes an expectation of workers to remain available and flexible to platform demands even beyond individual bookings and work hours, controlling and disrupting workers' temporalities be it through training schedules, non-responsive or delayed redressal and communication channels, or intrusive communications outside of work hours.

Maya, the beauty worker, told us that the app divided the day into two-hour slots which she can select to let the algorithm know her preferred timings. While she is available to work during a four-hour period, she is often unable to actually accept jobs during two consecutive slots:

Now I got the booking at 11 and got free by 1 o'clock. Then I would go home and do the packing again. You see these things. I accept that the job takes only two hours. But I cannot tell them what else happens along with the job. It might take longer if I need to work slower on personal services so I could not be free by 1 o'clock. So how I would accept booking of a customer at 1.30?

The flattening of the time taken to deliver a service into predefined slots ignores the personalised nature of the services that workers deliver. The platform sets unattainable time allocations for work, and refuses to consider

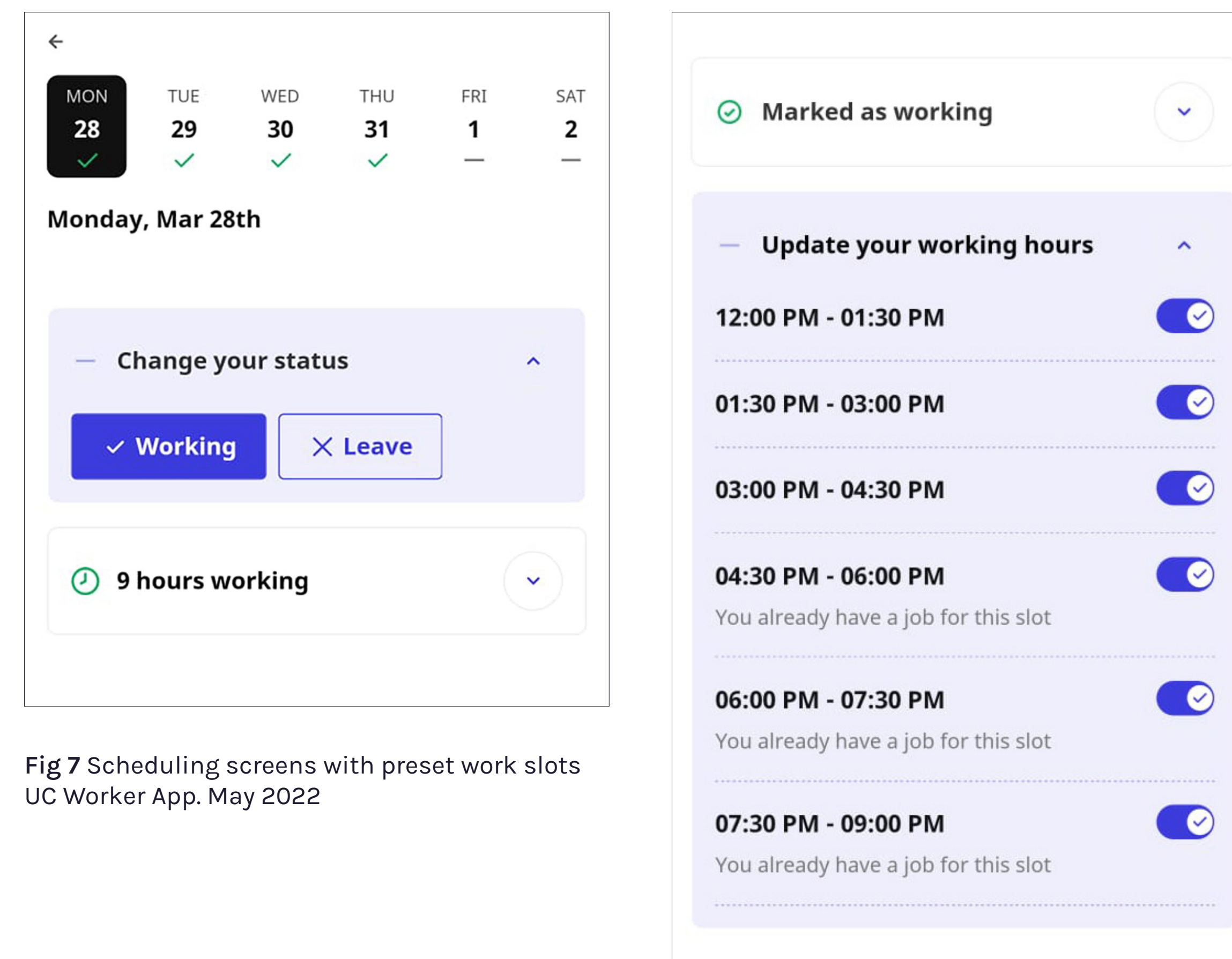


Fig 7 Scheduling screens with preset work slots UC Worker App. May 2022

the actual experience of service delivery. This leads to lost wages on the worker's part due to poor planning and design of the system that defines the worker's workplace.

The mental models of work between the company and worker can differ significantly as well. Ananya, the home chef, is used to thinking about the number of houses she has to work in, rather than the amount of time to spend per house. However, the time slots in her category were 1.5 hours, which translates to about 45 minutes of cooking time and 45 minutes of travel if she's booked for all slots:

So if distance is less and they need something then the chef adjusts such things. There is no role of company. Company tells you have 45 minutes and that's it. We asked during training that how it's possible to do in 45 minutes? If they have taken subscription for five members and for breakfast and lunch both, then how it's possible to do in 45 minutes for five people? It's not possible.

No matter the attempts at standardisation, not all jobs have the same scope or take the same amount of time to complete. Workers also get penalised for not showing up to jobs they accept. This essentially results in **penalising them for not fitting into the rigidly defined targets that are unreasonable in the first place**. They do not reflect the real conditions of work, and there are no resources for workers to fall back on (as we shall see later in the section on Grievance Redressal).

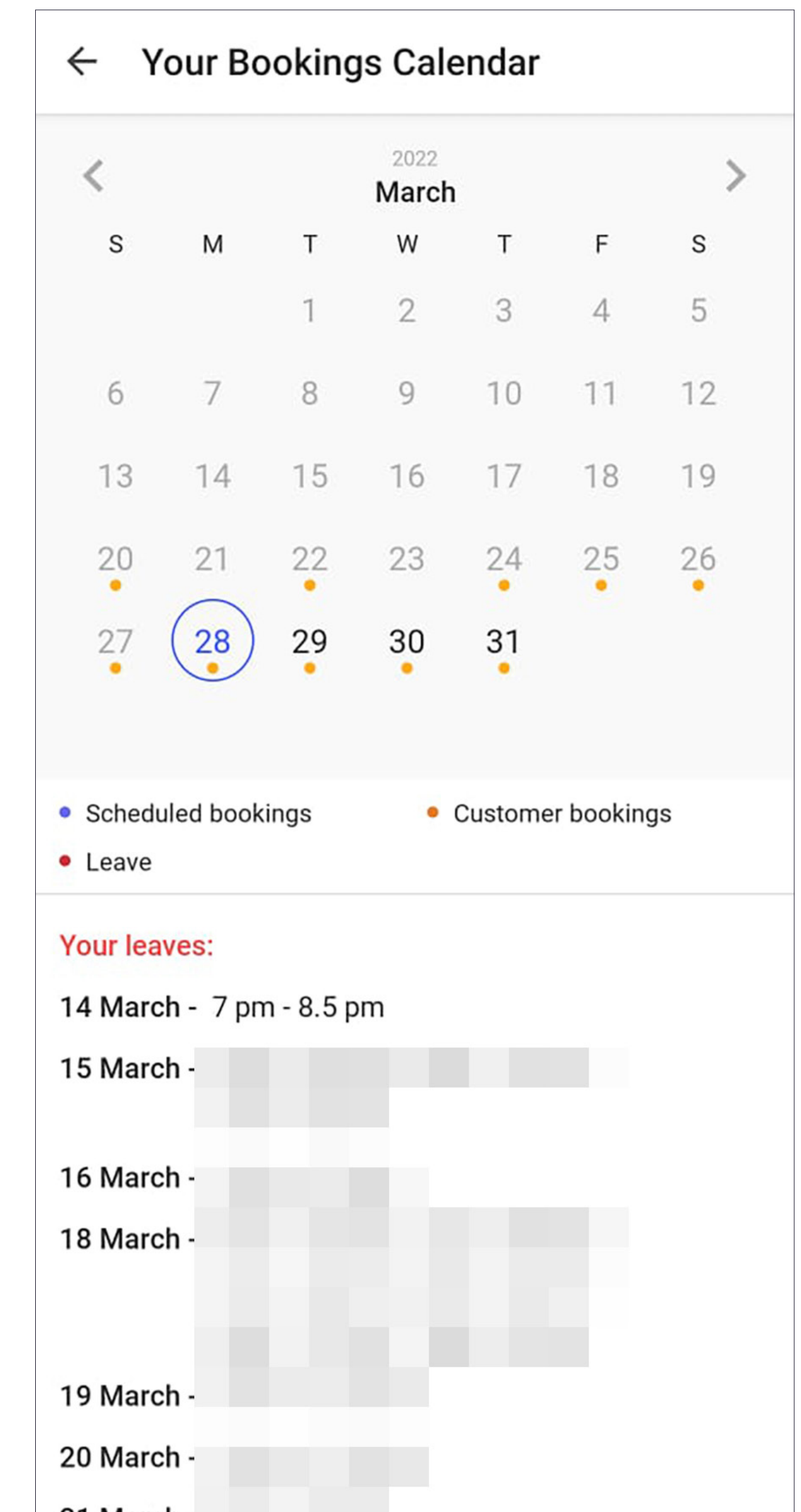


Fig 8 Calendar overview of scheduled customer visits and working days. UC Worker App. May 2022

The responsibility for worker safety

In fact, the economic and safety burden of travel to and from the worksite has to be borne by workers themselves. The information that workers have about the customers is limited to a name, an in-app contact method, an address, and the tasks requested to be performed. Maya told us:

Sometimes the customer will give location of one place and live at some other place. They come to pick me up at the location. So it's very difficult. That's why I don't accept jobs in [locality name]. It displays in my list also and declining does not look good.

The safety risks are especially pronounced for women, and workers we talked to were keenly aware of the limited control they have over the location of their workplaces. Maya told us that she was accompanied to jobs by a male member of the family, and would limit her working hours to be able to return home before nightfall due to safety concerns. This lack of any guaranteed safety and travel assurances by the platform affects women acutely. They not only lose out on potential earnings but are also penalised by the platform if their support structures are unable or unwilling to help them navigate the unreasonable demands of platform work.

Multiple workers have pointed out that refusing jobs leads to changes in access to the lead-generating algorithm: they either receive no more jobs for an entire day (if they refused three jobs a week) or no jobs for a week (if they refused more). The system penalises workers exerting control over their own workspace and exploits the precarity that those of intersecting marginalities navigate.

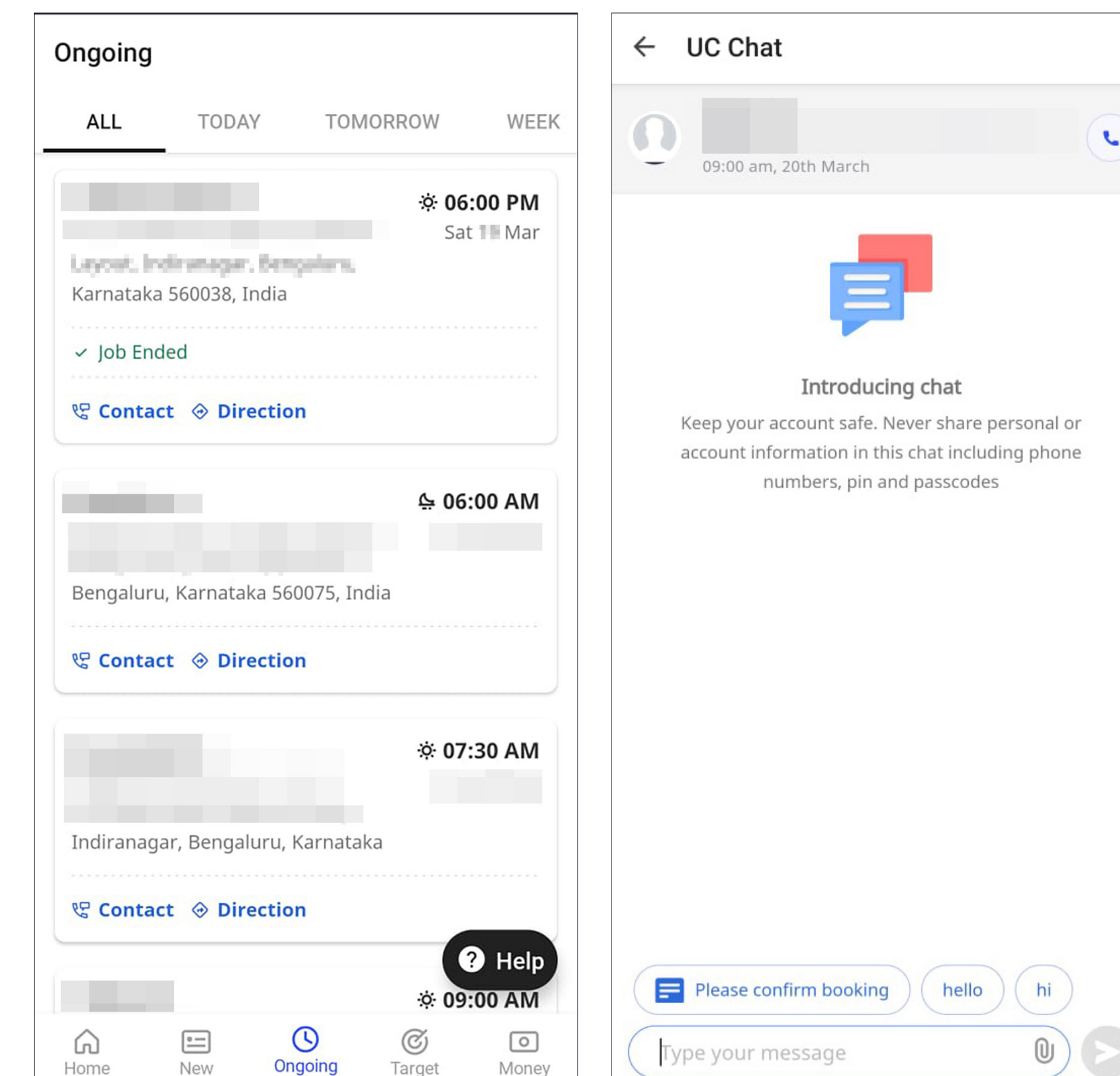


Fig 9 List of accepted work with customer name, address and phone numbers and the time of booking. There is an option to get Google Maps location and an in-app chat with customers. UC Worker App. May 2022

Unpaid labour of customer management

Since customers have not been standardised in their demands and needs, workers have to perform additional emotional and often physical labour when there are differences in the scope of agreed work. If they refuse, this impacts the ratings which define the quality of work for the workers. This combination of factors leads to overwork and leaves workers open to exploitation. According to Roshan:

If you take some work to a technician at their shop, the work gets done respectfully. But when you have to go to someone, there's no respect given to you. They think that their servant has come. I'll be honest if say there's some dirt on the floor while we work, we have to clean that up as well. The customer makes us do everything. If their bathroom gets dirty during a job, they'll make us clean it. During AC servicing, if some water falls down, they'll make us mop the floors as well.

Customers can be unruly and unpredictable as well. Here too the company provides no support for the workers. As far as we are aware, the technology has no way of “seeing” – measuring, recording, and forcing consequences – of this behaviour in any significant detail. There is an SOS button in the app and a way to rate customer after the job is completed,

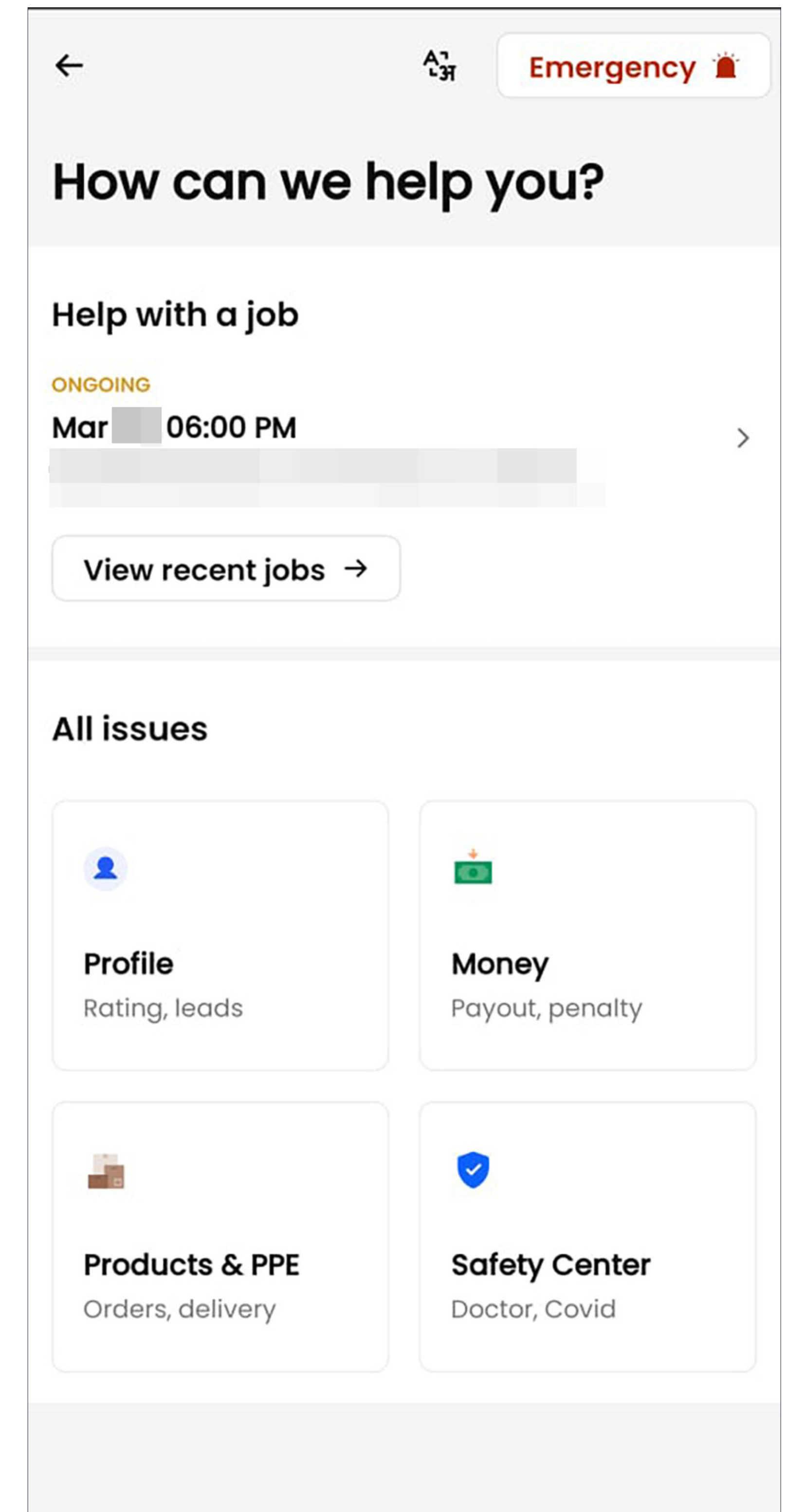


Fig 10
Help screen with an “Emergency”
button. The help section is sorted by
jobs and common issues.
UC Worker App. May 2022

but these are wildly inadequate in capturing the range of complexities workers face on the job. Workers are instead trained to use their intuition and defer to the customers in case of any conflict. The power differential between workers and customers is especially stark since workers have entered into an unfamiliar workplace, which is actually a customer's home. Ashok, a beauty worker, recounted:

One client I had wanted a haircut outside of the house, while it was raining. The client had to have their coffee, then they needed a table fan as well for the haircut. In such situations, it's best to get the work done as quickly as possible. In such cases, the company supports us a little bit because they can understand from the client's way of speaking what the issue actually is. But mostly they listen to the client only. 90% times they listen to the client and 10% they listen to us. And then, the client laughs at the situation. Wherever you work, you have to bend your head and nod along.

The assumption in the design seems to be that the customer can be implicitly trusted by virtue of being the person who has booked the service. The design features (like detailed ratings that materially change a worker's experience of the app) actively allow the platform to offload its managerial functions to customers to exert disciplinary power and authority over workers. The power differential between customers and workers makes this highly problematic as it is much harder for a worker to escalate an issue with the company or leave the platform over unresolved grievances as shall be explored in a later section.

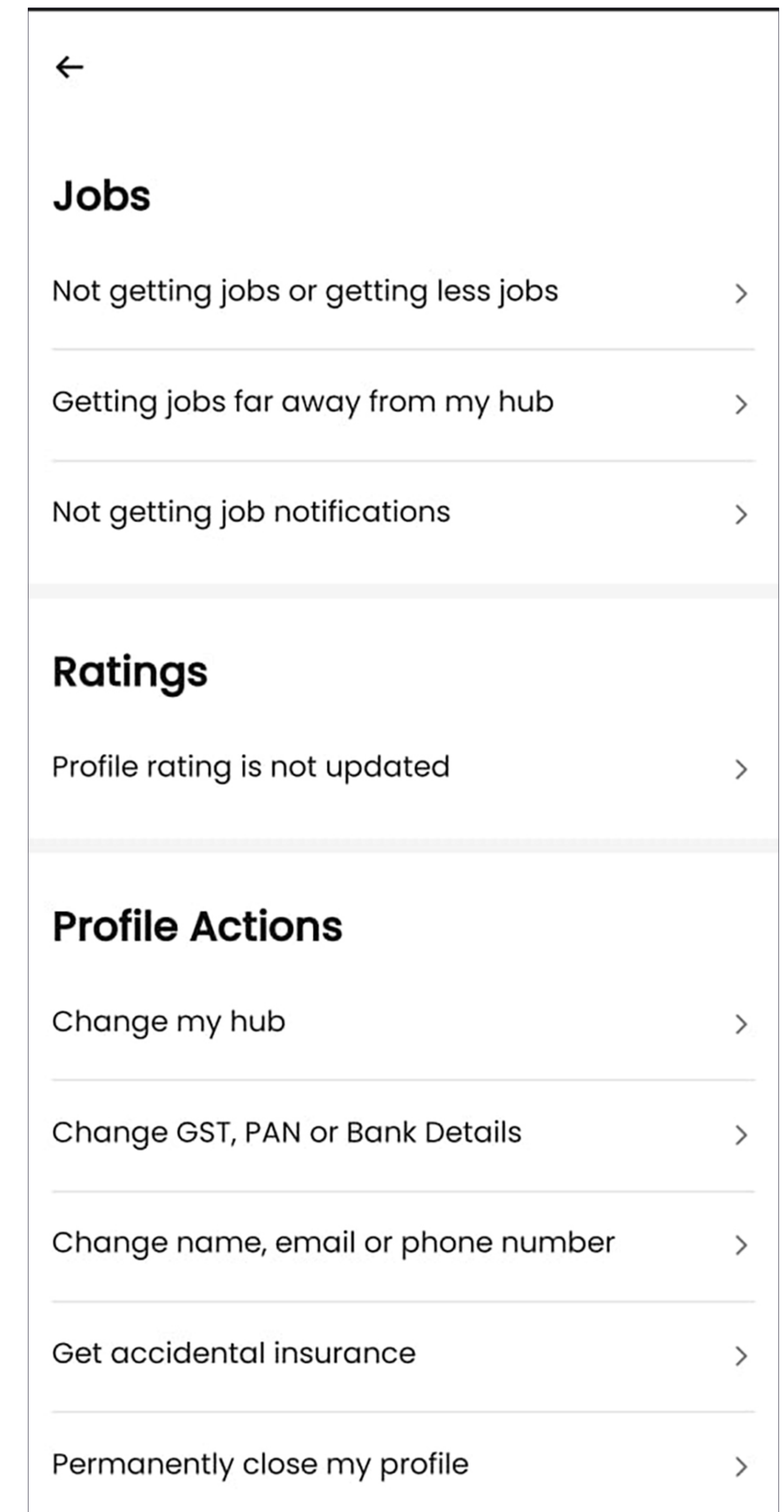


Fig 11
Help screen with a list of
common issues.
UC Worker App. May 2022

Politics of ratings

Urban Company ignores the politics of ratings and frames higher ratings as simply a number that is easily achievable by workers. The app has a “Track your performance” screen where a meter shows the rating between 4.5 and 5, with additional targets. This screen also mentions the number of jobs delivered, the response rate and delivery rate.

From our interviews, we found that workers need to maintain a high rating to be active on the platform. Below 4.6 (in the beauty sector) the platform stops sending the worker potential jobs they can accept. Workers have to attend a retraining session to be able to access jobs through the platform again.

The rating screen also has tips to improve ratings, which include non-specific suggestions to: “Look professional”, “Behave professionally”, “Always reach on time”, “Use original products”, “Follow safety procedure.” These suggestions do not address any of the varied causes of insufficient ratings, which often dependent on customer perception.

Previous research in other industries has shown that customers can misunderstand the numerical rating system as ratings are culturally contextual. (For example, a customer might think 4.5 is a good rating, while the platform’s deactivation threshold might be 4.7).²⁰

20 Gupta, S. (2020). Op. cit.

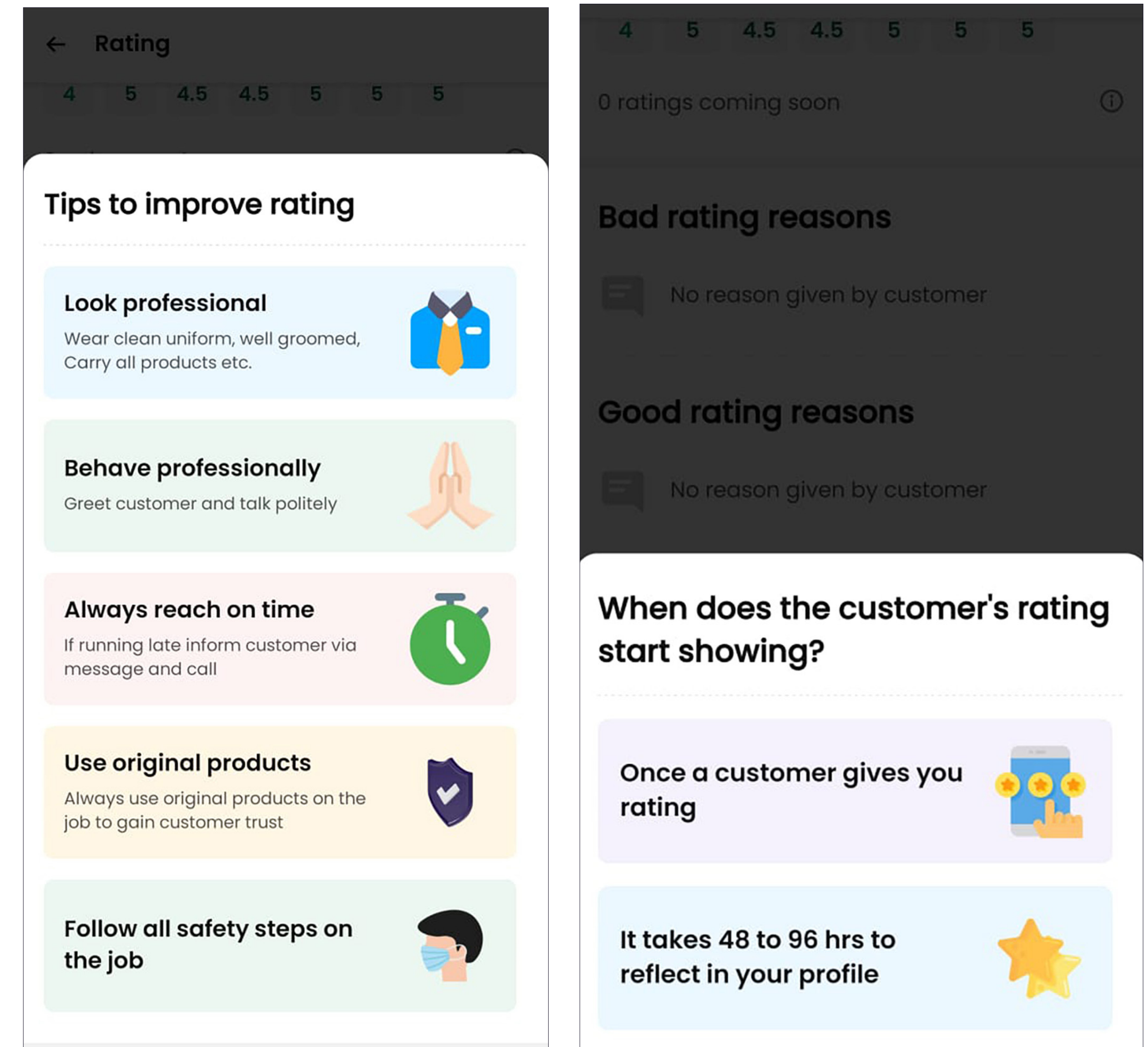


Fig 12 Tips to improve worker rating on the rating history screen. UC Worker App. May 2022

Additionally, it has been shown that the numerical scale leads to polarisation at either ends of the rating scale.²¹ While a low worker rating can lead to decreased opportunities, pay or even deactivation, visibility of the customer rating – where such a metric exists – is often unavailable to workers.

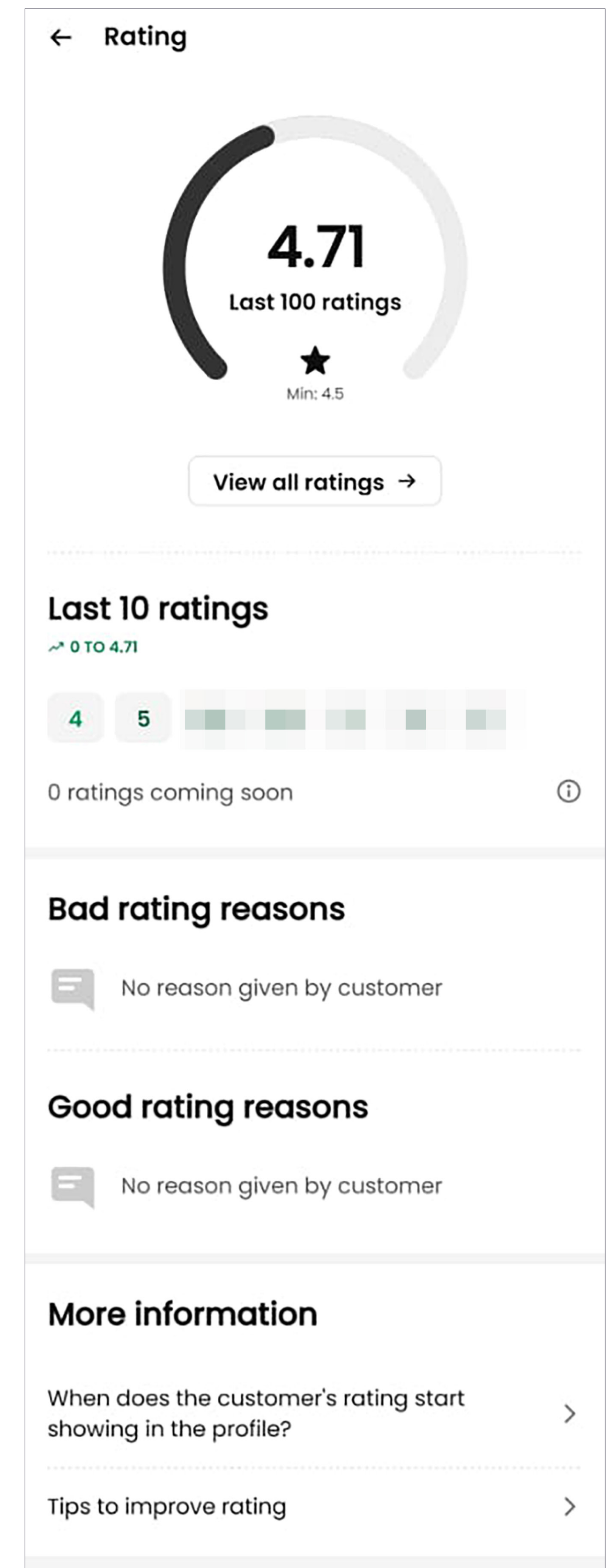
For Urban Company, the ratings system pivots the power asymmetry towards customers, without any external safeguards to check this power. This is similar to a work context that domestic workers have historically faced, where employers remain outside the purview and restrictions of employment law, with no checks on exploitative practices. Here, **the technical and design decisions do not so much disrupt the sector as they formalise the existing inequalities leaving workers equally (if not more) disempowered in their work.**

There are no winners in this system. Even workers with a high rating are forced to work harder by the achievement-oriented design towards a promise of higher earnings that nudges them to take on more jobs or perform favours outside of the scope of the job.

It is worth reiterating here that **not only are the power and information asymmetries manufactured by the design of the platform, it also relies on this asymmetry to outsource and maintain customers' roles of surveillance and disciplining, as designated by the platform.**

21 Stark, L. (2016, 7 September). Recognizing the Role of Emotional Labor in the On-Demand Economy. Harvard Business Review. <https://hbr.org/2016/08/recognizing-the-role-of-emotional-labor-in-the-on-demand-economy>

Fig 13
Rating screen showing the average and minimum target along with a history of the last 10 ratings and customer reviews.
UC Worker App. May 2022



Gamification of Design

Once the process is broken into parts that are deemed to be sufficiently measurable, the company is now in possession of metrics and measurements for a previously unmeasurable process. The platform is now free to manipulate them in a way that leads to behaviour change for the workers to serve company goals.

Gamification is “the design approach of implementing elements (affordances, mechanics, technologies) familiar from games to contexts where they are not commonly encountered”.²²

Gamification has been shown to affect workers’ motivations, behaviours and outlook towards work globally across sectors.^{23 24}
²⁵ Through datafied gamification techniques, platform companies seek to exert control over workers in an effort to achieve their financial goals.²⁶

Urban Company is no different. The platform employs many gamification strategies to affect worker behaviour towards its corporate goals. Let’s take a look at some of these:

22 Warmelink, H., Koivistob, J., Mayer, I., Vesa, M., & Hamari, J. (2020). Gamification of production and logistics operations: Status quo and future directions. *Journal of Business Research*, 106, 331-340. <https://doi.org/10.1016/j.jbusres.2018.09.011>

23 Prabowo, R., Sucahyo, Y. G., Gandhi, A., & Ruldeviyani, Y. (2019). Does Gamification Motivate Gig Workers? A Critical Issue in Ride-Sharing Industries. *International Conference on Advanced Computer Science and Information Systems (ICACSIS)*, 343-348. <https://ieeexplore.ieee.org/document/8979938>

24 Mason, S. (2018, 20 November). High score, low pay: why the gig economy loves gamification. *The Guardian*. <https://www.theguardian.com/business/2018/nov/20/high-score-low-pay-gamification-lyft-uber-drivers-ride-hailing-gig-economy>

25 Davalos, J., & Bennett, D. (2022, 27 May). Gamification Took Over the Gig Economy. Who’s Really Winning? *Bloomberg*. <https://www.bloomberg.com/news/features/2022-05-27/how-uber-and-lyft-gamify-the-gigeconomy>

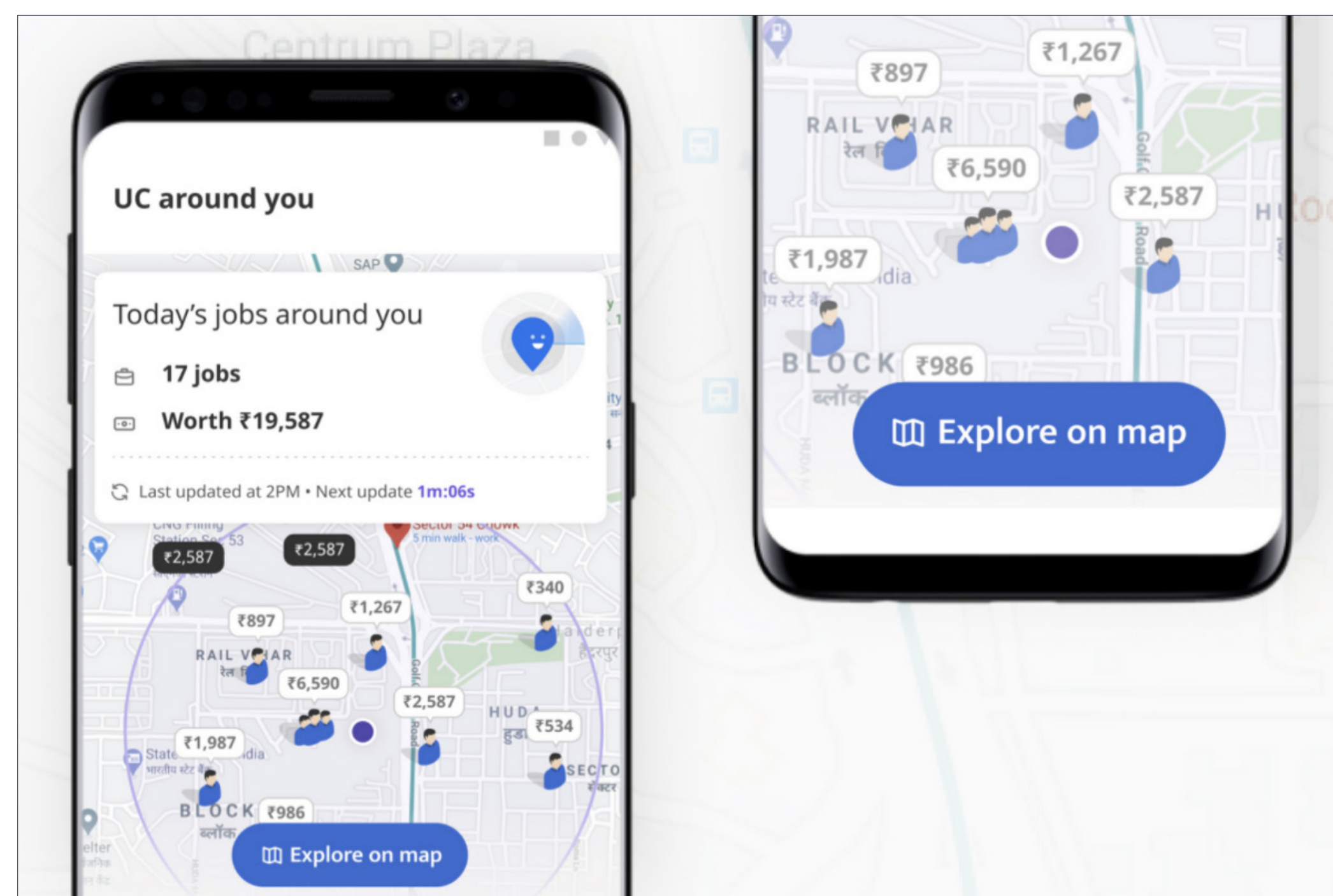
26 Doorn, N. V., & Chen, J. Y. (2021). Odds stacked against workers: datafied gamification on Chinese and American food delivery platforms. *Socio-Economic Review*, 19(4), 1345-1367. <https://doi.org/10.1093/ser/mwab028>

During onboarding

The platform design gamifies the sign-up process for workers. First, it often shows inaccurate and unachievable estimated earnings since the platform fees and credits that affect take-home pay do not make it into messaging on promised earnings.

Secondly, it weaponises people's fear of missing out by using screens that show what others in the area have been earning. This is not too different from games that show players maps of treasure they can collect if only they work hard enough during the course of gameplay.

Fig 14
Worker onboarding screens showing jobs and potential earnings available in their neighbourhood.
UC Design Blog, May 2022



The credit system

Workers buy credits, which is essentially in-app money they use to buy supplies from the Urban Company marketplace and reserve a lead where they will be working. In-app currency is a common gamification strategy used to keep the intended users (in this case the workers) coming back to the app. Through the use of in-app currency instead of an INR (Indian rupee) wallet that workers might already be using for other purposes, the platform design obfuscates the real cost of each lead and builds a sense of “loyalty”²⁷ by locking in money as currency unredeemable outside of the platform. For workers, this increases the cost of leaving the platform as they have to convert their credits into real money. People often forget about in-app money as well, and the company gets to keep this forgotten amount.²⁸ This effectively ensures that workers themselves are a customer base that the company can mine for generating further revenue, all the while increasing their dependence on the app.

27 Hsiao, K. L., & Chen, C. C. (2016). What drives in-app purchase intention for mobile games? An examination of perceived values and loyalty. *Electronic Commerce Research and Applications*, 16, 18-29. <https://doi.org/10.1016/j.elerap.2016.01.001>

28 <https://www.darkpattern.games/pattern/16/premium-currency.html>

Scheduling and leads

Metrics like **minimum open slots, response rate, delivery rate and loss of income from rejected leads** have the effect of pushing workers into working longer hours for the platform. Using strategies for loss aversion and the promise of a return on their investment (of time, credits) also leads to overwork, as Maya and Ashok explain:

It's like the more you will work more you will earn. Girls earn up to lakh rupees per month. Like I earn around 50-60k out of which I give them [the company] around 15-20k to them as credit. And I don't get less than 40k anyhow. (Maya)

It's mostly haircuts or double haircuts which is for 450/- rs. Out of that 450/- rs, the company takes 90/- as commission which is a 20% commission. If I work harder, then I can earn between 21-25 thousand and those who work less, they earn between 15-18 thousand a month. And those who work extra hard, like they start work at 7 in the morning and work until 10 pm, they can earn upto 30 thousand and more. (Ashok)

As previously mentioned, the platform also punishes workers for making decisions about their work either in form of warnings and fines (e.g. pausing potential work being sent to workers when they refuse above a job threshold), or even deactivation of workers' profiles.

For seasonal jobs, a focus on time-dependent rewards and the threat of adverse consequences that are communicated and reinforced through platform design and company policies push workers into unhealthy overwork. Roshan explained:

Now you tell me, if you get three square meals of your day served all at once, will you be able to eat it? You'll only be able to eat as much as your appetite allows right? So what they do is, they give us 8-10 calls every day to finish the 10,000/- rs worth of plan that we took in the beginning. Then when we can't make it to the job, we get a penalty. It's best to not to answer then, the worst that'll happen is 200-300/- rs gets cut. The penalty deduction depends on the call, so if a call is worth 5000/- rs, the penalty can be of 2000/- rs. During season, there a lot of good work, the only limit is us. After these two months, the work is bad. Then if you call them, they say there's no demand.

Breakdown into categories

Each service line is further divided into various categories by cost of service, e.g. classic, prime and luxe. As with the bronze, silver and gold medals awarded to sportspeople of increasing skill, the inherent assumption is that these service categories and cost differentials would also provide a higher quality of service to the customer.

This is misleading for both customers and workers.

Only workers that meet specific rating thresholds are allowed access to these services. Combining both credits and ratings to provide workers with a target to work towards (“level up”) might encourage workers to aim for higher earnings, but it does not help benefit them in tangible ways. Maya told us:

Since I do good work, they are insisting that I do luxury service. But I don't want to do it. And I have heard that it's too costly. I already have too many products and we have to stock the products with us. So that will get wasted. [...] It is luxury category so they say that you will earn a lot. Because waxing worth Rs 1000 becomes Rs. 2000 when you go there [luxury category]. So definitely we will earn more.

Then you [UC] are taking 200 rupees credit from us and then you [UC] will take 400 rupees credit. So where is the earning? If we do Rs 2000 worth of work here [classic category] then also we will earn the same.

The only practical difference for these categories turns out to be the commission that Urban Company can charge on both sides of the transaction (customer and workers), and the higher cost of materials that workers need to pay upfront to be able to access work in the category.

Ratings

The idea of ratings that flatten a human interaction into a five-stars scale is itself a gamified feature. The screen employs gamification strategy of progress/feedback²⁹ to encourage workers to meet required targets, then uses the threat of adverse consequences for lower ratings as a way to keep workers in check.

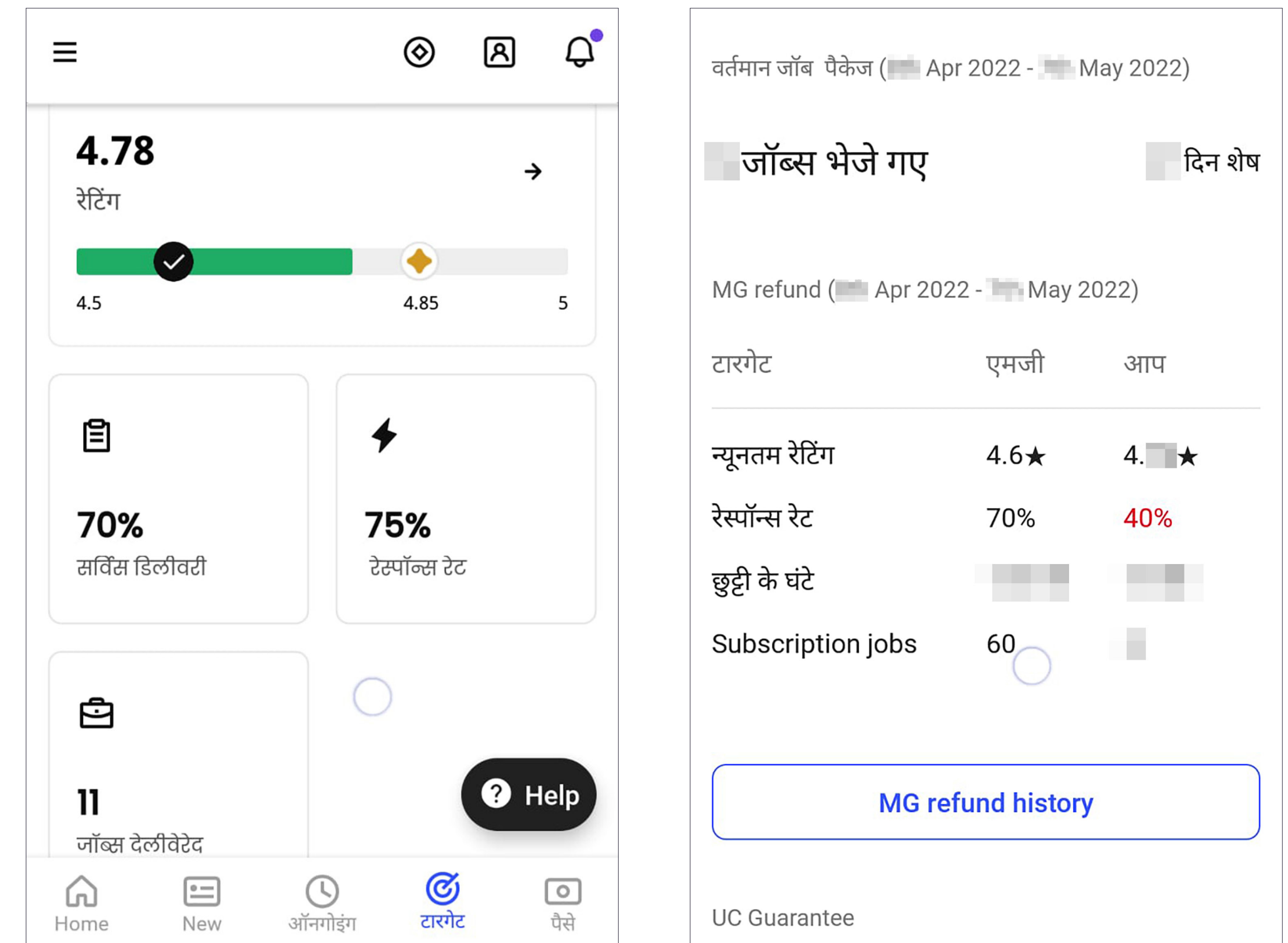


Fig 15

Left: Rating screen showing the current rate and the target rating to avail minimum guarantee (MG) pay along with the delivery rate, response rate and weekly jobs received.
Right: Target screen comparing worker's current work rates to those needed for MG plan.
UC Worker App. May 2022

29 <https://www.gamified.uk/user-types/gamification-mechanics-elements>

Trust In The Company

It is important to note is that customer affect and travel cost (the time and cost people incur while visiting a site) need not be true blind spots for the system. Travel surveillance features and rating systems that highlight the extent of work that workers undertake already exist in the app. These could have been used to build a safer, more helpful experience for workers. Instead these features are used to restrict worker freedom and offload platform managerial tasks to the customer.

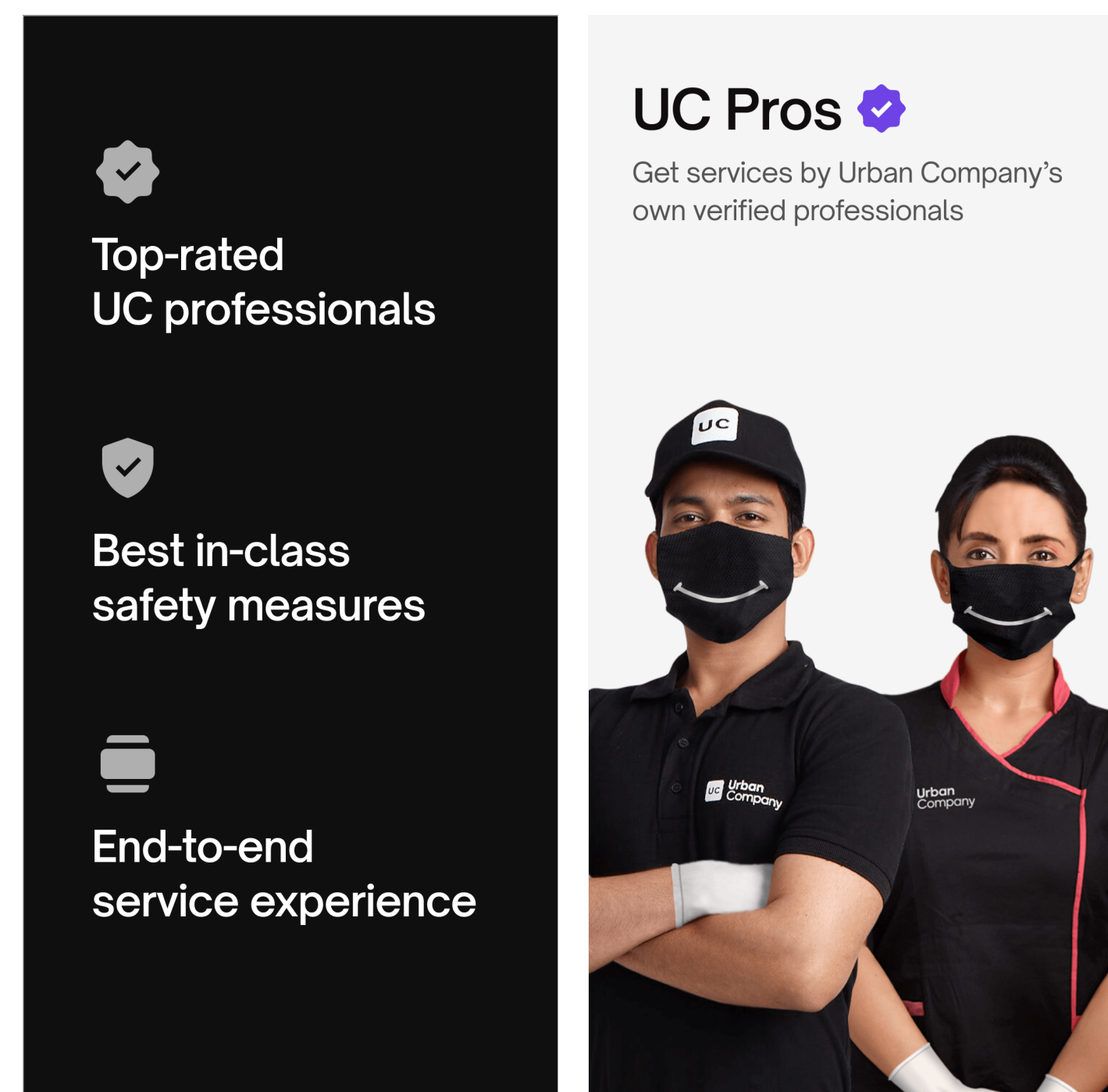


Fig 16 App promotional materials promising “professional” and “top rated” services for customers. Google Play Store. April 2022

Onboarding

Trust in the company, and the workers it sends, is an important feature of the customer onboarding process

The sign-up process for the customers is similar to that of other gig economy platforms like Zomato (food delivery) or Uber (ridesharing) in India. Sign-up requires the account holder’s name, phone number, verification of that number via an SMS password. Terms and conditions is a check box that shows up during sign-up. Customers are then able to select and book services on the platform.

Fig 17 Customer signup screens asking for a phone number and the subsequent OTP to onboard onto the platform. UC Customer App. April 2022

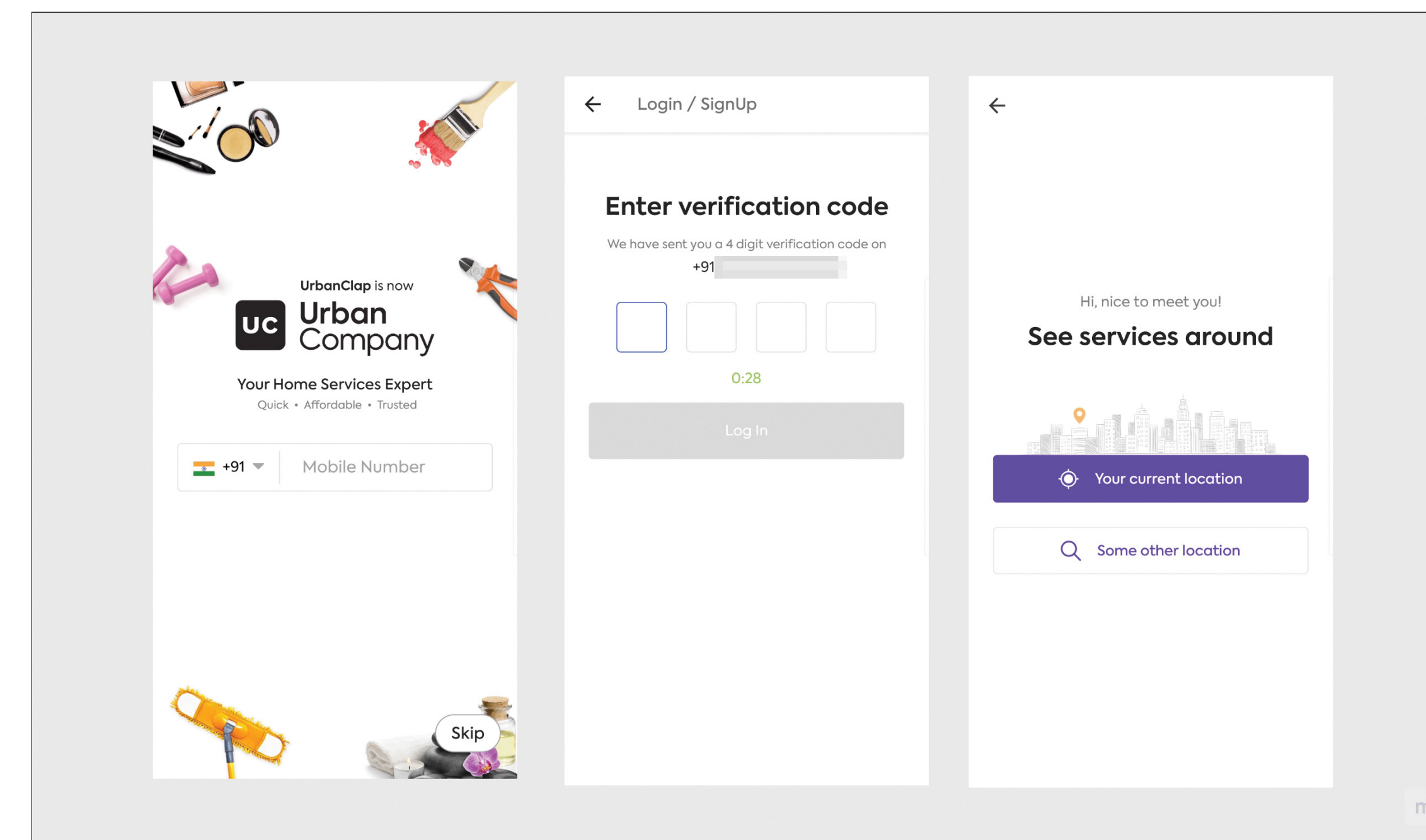


Fig 18 Media promotional material showing happy workers and customers in UC branded apparel with protective equipment.”. UC Website. April 2022



The customer app keeps the customer front and centre in its interface imagery, but the workers are vivid in the app imagery too. As an app that aims to send workers to do tasks in the customer’s home and provide services that can be quite personal, there is an impetus to visually show workers in the imagery to establish trust. The workers in the photos all wear Urban Company branded clothes and are shown to be focused on the personalised service they provide to the customers. These pictures are also used to do the work of standardisation and expectation setting that workers then need to embody.

The worker onboarding process, on the other hand, is extremely involved. It seems primed to exploit worker precarity and their need to access work in service of furthering corporate goals, reinforcing the status quo which places customers in a position of power and privilege.

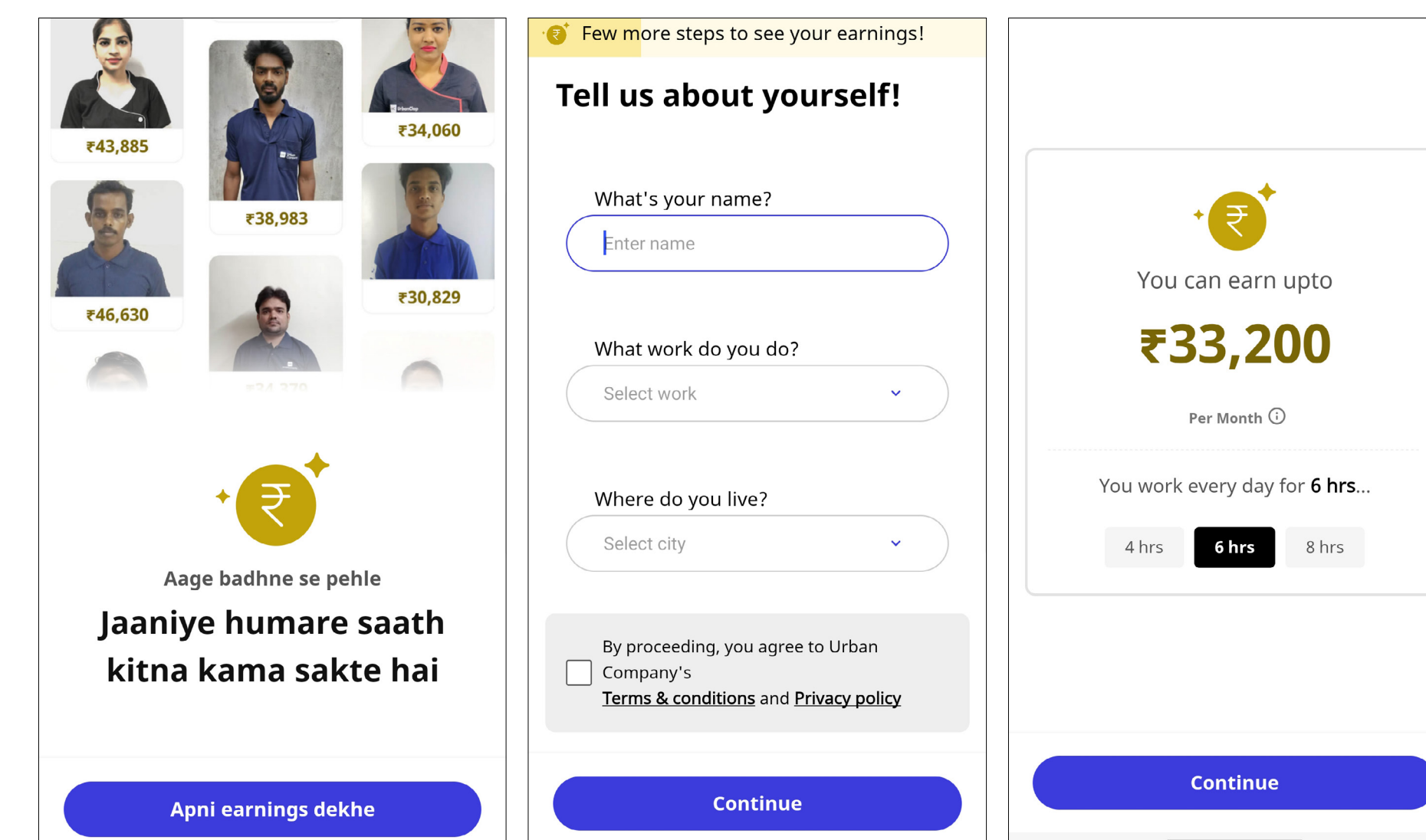


Fig 19 Worker onboarding screen advertising potential earnings. . Estimated earnings are shown after entering personal information and agreeing to the Terms of Service. UC Worker App. May 2022

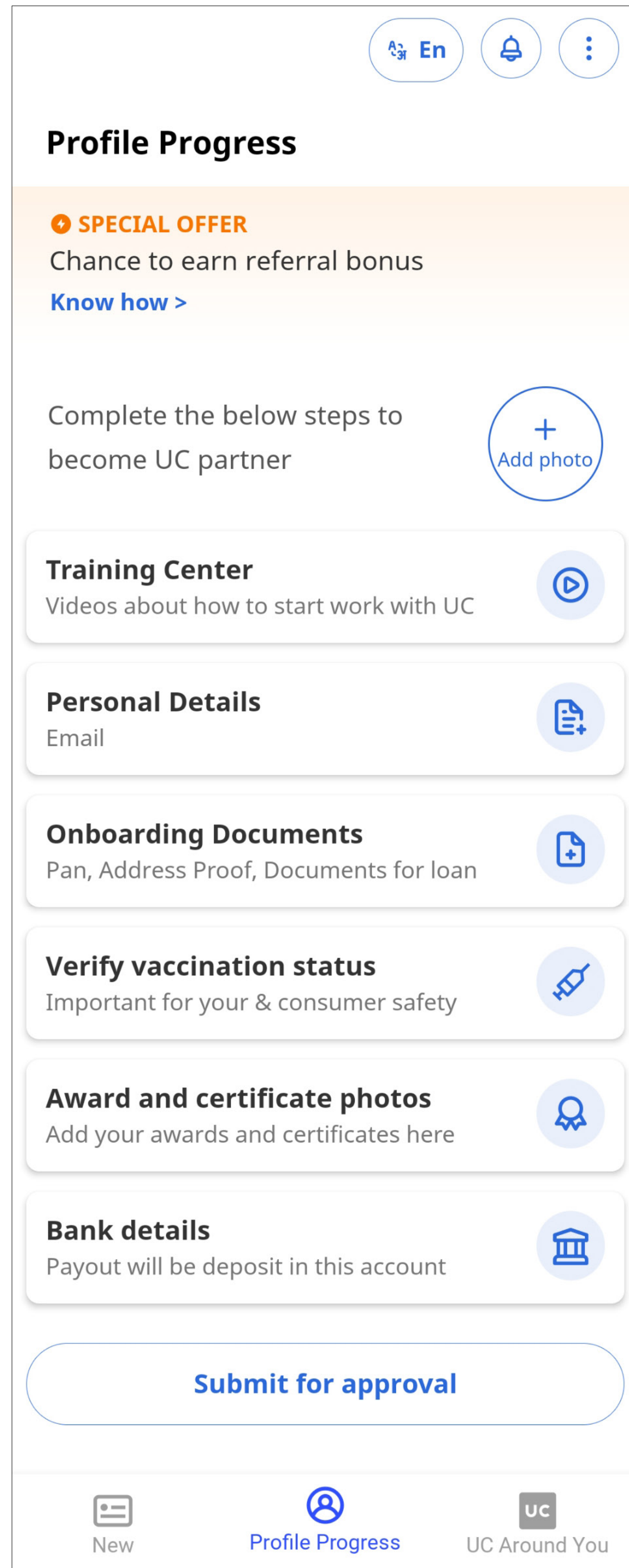


Fig 20
 The worker application screen requires that workers upload a total of 17 documents including personal IDs, vaccination certificates, professional certificates and bank details. UC Worker App. May 2022

The sign-up page on the worker app primarily exists to collect contact information of the interested workers. The documentation involved is extensive: four documents for identity verification, in addition to bank details, vaccination records, and awards and degree certificates held by the worker. To complete the process, workers have to go to the local Urban Company office for verification of their documentation, further training and to resolve any other issues they might face while being onboarded.

According to company communications, they undergo screening, assessments and background checks in addition to their training modules before they are allowed to access any jobs on the platform. **This higher cost of entry for workers is billed as part of the “trusted” and verified workers on the platform.**

However, **this trust only goes one way.** The marked lack of a similar process of uniformity and verification for customers shows platform priorities towards the customers even though both workers and customers are paying to use the platform. Workers cannot have the same sense of security and trust in the people they meet on the job, which combined with the fact that they are training to defer to users in case of conflicts can make for hostile work conditions when the customers do not have the best interests of workers in mind.

Distrusting workers through surveillance and verification

Not only can workers not trust the platform to support them through their work, the system is designed in such a way that it actively distrusts the workers that offer their services through the platform. Before a job is even set to begin, workers need to:

- Input an OTP number (password) obtained from the customer app.
- Take a picture of themselves at the customer location before service begins.
- Take pictures of the materials being used.
- Take pictures of gloves and other sanitary materials used (during COVID-19 restrictions).

The various passwords, pictures and other workplace surveillance features workers are mandated to keep track of before the service is even set to begin, are deeply disrespectful of workers who undertake an enormous amount of uncompensated labour to deliver a service.

Company communications explicitly compare workers delivering services through its app to a stalker in a Netflix show.³⁰

The implicit and explicit assumption is that workers cannot be

³⁰ Teotia, R. (2020, 29 January). Op. cit.



Fig 21 Meme comparing UC workers with stalkers
[UC Engineering Blog](#), Jan 2020.

trusted to do their job and need to undergo multi-step verification to follow through with their tasks.

Workers feel this mistrust deeply, especially when they're unable to get help. As Maya explained:

So the things is that whatever you do ultimately you cannot do anything. If I and you are there and if you slap me then I can only tell them about it. But if you deny then what I can do? [The company waits for verification.] If the customer does the wrong thing with other person also then she must have done it with me too.

Customers are then encouraged to leave ratings across multiple axes for the system to capture how they truly performed their job. During the study period, there were multiple rating formats and depending on service category, the app asks customers:

- To rate workers from 1 to 10.
- Worker behaviour during the service.
- Whether the worker had their mask on throughout the service (during COVID-19 restrictions).
- Whether the products used were new and opened in front of them.
- Whether the worker took customer suggestions into account.
- To write a longer response for further impressions.

At the end of the service, the worker has additional verification tasks as well, depending on the service category. For a service like repairs, the worker has to upload pictures of the end-state of the concluded task. Our home chef interviewee told us that workers are also encouraged to share pictures on a WhatsApp group with trainers and other workers.

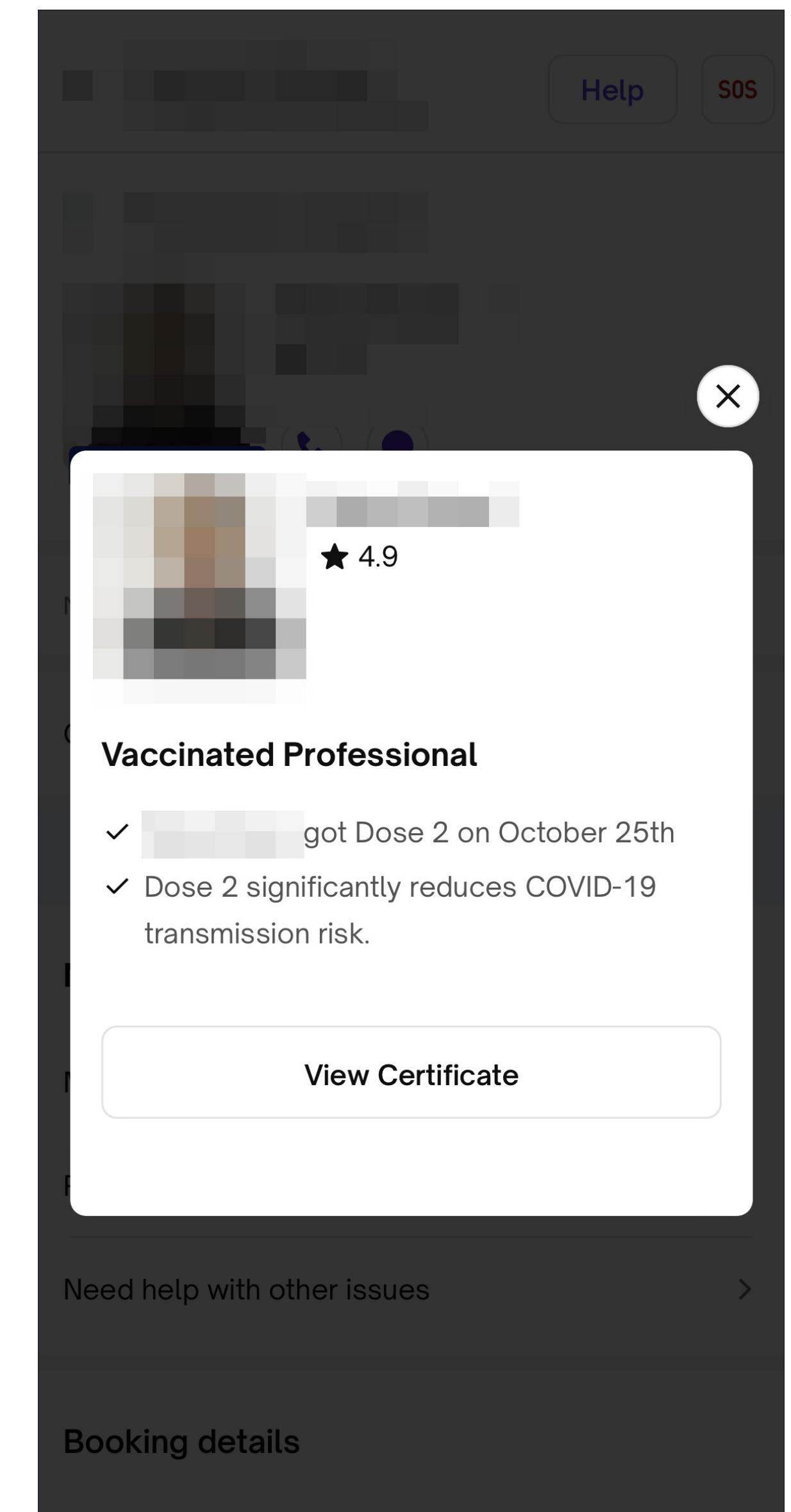
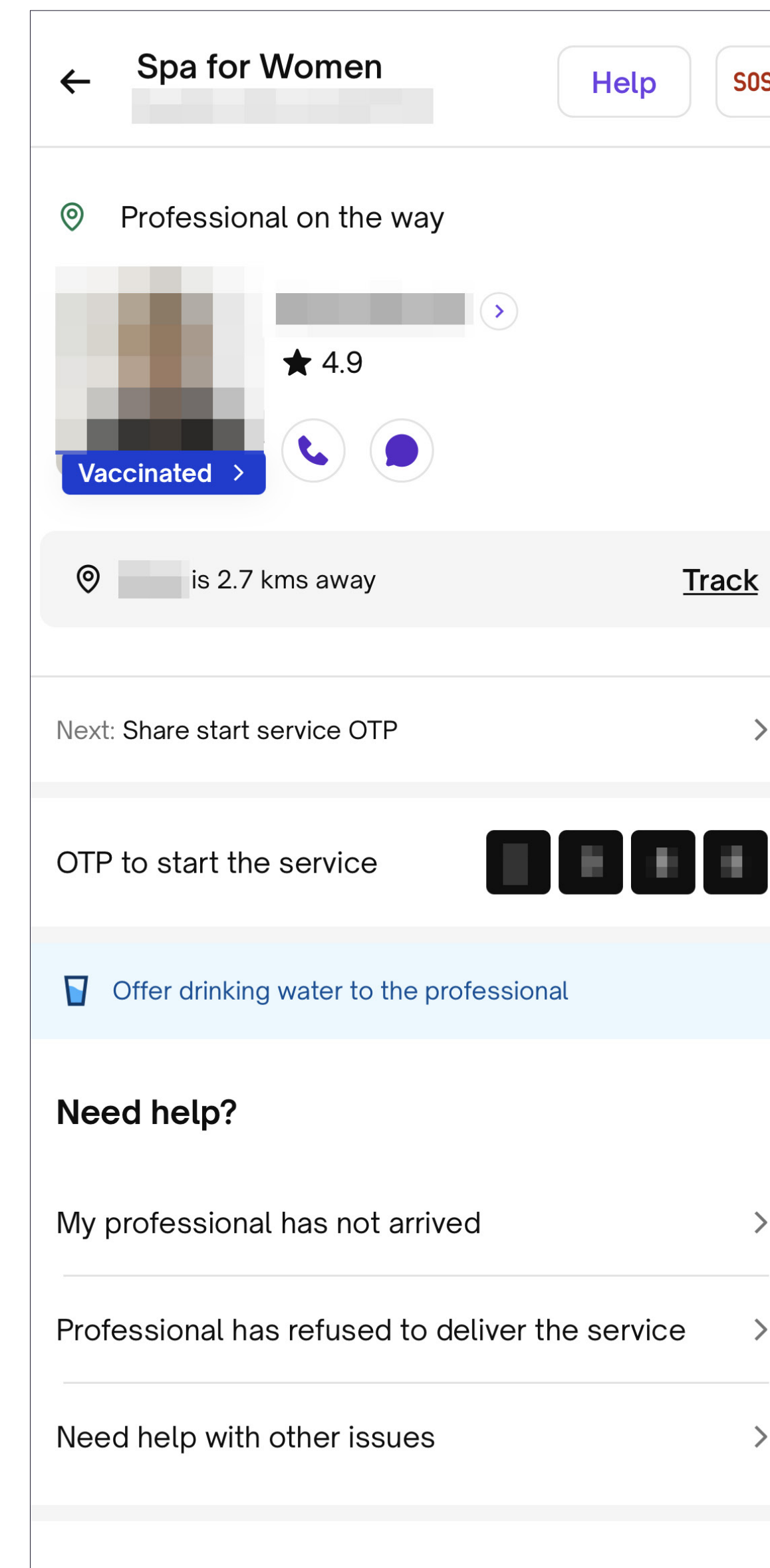


Fig 22 The customer screen shows worker and job information including OTP, location tracking, in-app contact, vaccination certificates and a help centre. UC Customer App. May 2022

Grievance redressal

Workers express helplessness when interfacing with the company to get help on any conflicts. Maya told us:

It's like you are going and ringing the doorbell and get to know that it has got cancelled. Someone opens the door and says that it has been cancelled. It makes me very angry.[...] But they [Urban Company] don't listen to you even if you tell them. This is the funda [principle] of every company. They only say but don't do much for it. They always say that they also have to manage a lot of things. Even things are like if I call them and tell them that this madam is saying this or that then they simply tell us to manage. Or they don't pick up the call.

Our interviews with workers showed the training around the help centre to be inconsistent. In our interaction with two female workers, one mentioned that she was aware of the emergency button and had been instructed to use it only in escalated situations; the other mentioned she was unaware of any safety features on the app. Instead, she was asked to contact the category manager in an emergency. However, we found that managers are often unavailable beyond sign-ups and training. Workers mentioned that a helpline number has been provided to them by the company, although we did not see the number directly provided in the Help Center homepage.

Most workers we talked to said they felt the helpline is either not very responsive or not capable of helping them with their job concerns. Ashok explains:

They don't answer any calls whenever we have any sort of problems, Sometimes I call the helpline for my problems. Sometimes they solve it, other times even they can't do anything."

The lack of support on the job, combined with the platform's insistence on terming workers as partners or micro-entrepreneurs who only use their service to find potential jobs, allows the platform to shirk all responsibility.

Given that workers are completely dependent on the platform for all aspects of their working life, including job selection, prioritisation, vetting client and setting wages, workers essentially function as employees without being afforded any protections of formalised work. Social and legal protections such as minimum wages, social security, etc. are actively denied to workers and they do not share in the profits of the company that they build.

Affordances for Collectivisation

A major consequence of turning service tasks into atomised pieces of work that have to be completed at satellite workspaces that change with customers is that it affords limited opportunities for workers to connect with each other. Workers do not share a common workplace and thus have no sites for meaningful social interaction with each other when they are on the job. Companies in the platform work sector, including Urban Company, do not invest resources to enable peer-to-peer communication.

Social media does help bridge some of this gap, and WhatsApp groups have been used by workers to share experiential information about their jobs and organise protests in India. Prior work has shown that, casting workers as independent micro-entrepreneurs artificially introduces a sense of competition between workers making them less likely to share information with people they think they are competing with.³¹

Further, platform design decisions, including ratings and service categories introduce artificial divisions between workers. This is bad for worker solidarity since issues faced by a set of workers in a separate category are seen to be fundamentally different from one's own issues. These design features promote the "othering" of workers with different ratings, or different service categories, making it much harder for workers to unite around a common cause.

Workers are governed by a set of rules and policies defined unilaterally by the platform in their terms and service documents. Platform terms are subject to change as the company sees fit, but workers do not have a voice in this process. Due to a lack of domestic worker unions, workers have no space for collective deliberation to put their views forward, and the design of the platform combined with the atomised nature of work hinders collectivisation efforts.

³¹ Yao, Z., et al. (2021). Together But Alone: Atomization and Peer Support among Gig Workers. Proceedings of the ACM on Human-Computer Interaction, 5. <https://dl.acm.org/doi/10.1145/3479535>

Conclusion

Platformisation of domestic and personal services work has changed how tech forward, urban middle- and upper-class customers find workers, but it has changed little about the dynamic of the work being conducted.

Urban Company – the prominent platform for home services in India – deems customers as the primary stakeholders even though it charges both customers and workers to use its services. Services are broken down into standardised and repeatable processes so that the same experience can be delivered to customers, regardless of the worker. However, this standardisation of service experience pushes workers to undertake labour that remains unrecognised and uncompensated by platforms. This includes the unpaid physical work that is not included in the standardised package of the service such as prepping, clean up, etc.; emotional labour as it is commodified under standardisation and is necessary for adequate ratings; temporal labour as workers have to forego autonomy over their own time to meet temporal demands of both customers and platforms; and work of personal safety that the platform offloads to workers too.

In contrast with claims of flexibility and autonomy, the platform does not allow workers any control over their work lives and instead forces workers to depend on it for job selection, prioritisation, client vetting, and wage setting.

It exerts further control over workers through gamification techniques that encourage them to join the platform, work longer hours, punish them for issues created by rigid technology even as it discourages collectivisation.

Further, the platform and the policies around it work to establish customer trust in the company brand through extensive worker checks though there is no comparable process for customers. In fact, workers are actively distrusted throughout the service delivery process and have to shoulder the costs of onboarding verification, and constantly find themselves surveilled by the platform and the company as the platform offloads its managerial responsibilities to customers. Workers receive limited support from the platform in case of grievances and are responsible for their own health and safety before, during, and after a job.

Workers are not their own boss, but governed by the intersecting whims of the customers they service, the company that does not properly employ them, and a technical system that does not acknowledge the realities of the work they do.