

“Why lose control?” A Study of Freelancers’ Experiences with Gig Economy Platforms

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Freelancing platforms, such as Upwork, represent an expansion of the gig economy to encompass knowledge-based work. Prior research in HCI has primarily focused on forms of gig work such as ride-sharing and microwork but has not addressed how freelancing platforms are disrupting high-skilled knowledge work. To understand freelancers’ perspectives on how these platforms are disrupting their work we have collected and thematically analysed 528 posts with 7499 comments from four relevant subforums on Reddit. The qualitative findings reveal tensions between wanting autonomy and control and the necessity of opportunities and convenience. Freelancing platforms are perceived as systems that present advantages to find clients, gain experience and mitigate precarity. However, these platforms constrain the control over their work that freelancers value. The paper contributes an improved understanding of freelance work, the role and potential for freelancing platforms in the knowledge-based gig economy, and directions for worker-centred design.

CCS CONCEPTS • Human-centered computing • Human computer interaction (HCI) • Empirical studies in HCI

Additional Keywords and Phrases: Gig economy, Freelancing platforms, Freelance work, Worker-centered design, Upwork, Fiverr, Reddit

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1 INTRODUCTION

Over the last decade, gig economy platforms have disrupted how work is conducted all over the world. There is no universally agreed definition, but the gig economy can be described as those markets mediated by digital platforms that match customers with independent workers [16]. Gig economy work can be broadly divided into: location-based and location-independent types of work [74]. The former refers to the type of gig work that requires independent workers and customers sharing the same geographical space for work to be conducted, for instance, a driver sharing their car through a platform like Uber. The latter covers those markets where work is not dependent on customers and clients

sharing the same geographical space, for example, a designer in Kenya editing photos for a client in Canada through a platform like Upwork.

Arguably, location-independent forms of gig work have enabled greater flexibility to accommodate work into workers' lives as well as greater autonomy over the type of work that is conducted [9, 75]. Most of the HCI and CSCW literature of location-independent gig work has centred on understanding and supporting the experiences of microworkers [46], particularly those who work on Amazon Mechanical Turk (AMT). Notable examples include the investigation of microworkers' working preferences [45], how they incorporate their work into their lives [40], and the types of tools they use [71]. Other examples include the design of technologies to make microwork visible and fairer for workers, e.g. [30].

However, location-independent gig platforms do not include just microworkers, but also skilled professionals, including freelancers. Microwork is different from freelancing because freelancers often engage in longer and more complex projects that require close collaboration with their clients as well as specialised knowledge [44]. In fact, highly skilled freelancers, in areas such as software development, graphic design, creative writing, among other forms of knowledge work, have been attracted to gig economy platforms like Upwork and Fiverr [34]. For the rest of this paper, we refer to these gig economy platforms as *freelancing platforms*, which primarily cover knowledge-based forms of location-independent gig work. Upwork, as one of the largest freelancing platforms, has claimed to have about 12 million registered freelancers worldwide and 3 million jobs advertised yearly [52]. Recent studies estimate that freelancing platforms are growing on average 20% every year [34], and have especially thrived during the current job market disruption due to the COVID-19 pandemic [67].

Previous examinations of freelancing platforms have highlighted the trade-offs of this type of gig work. For instance, Wood et al. [72] found that while freelancers have high levels of flexibility and access to a global market of clients, they also experience financial pressures, overwork, and social isolation. Other work has highlighted that freelancers indeed sign up to these platforms with the promise of autonomous, creative and fulfilling work [50] only to develop skills to bypass the precarity and control that platforms exert on them [32, 35, 65]. At the same time, freelance work has been characterised by similar trade-offs, such as uncertainty and heightened work pressures, even before the appearance of gig economy platforms [23]. As more people continue to join freelancing platforms and the scarcity of research looking specifically at freelancing platforms, we argue that it is important to gain a deeper and nuanced understanding of freelancers' perspectives, how these sociotechnical systems impact freelancers' working lives, their drawbacks and benefits, and ultimately how can they be enhanced to support a better experience for workers [15].

Therefore, this paper reports on the discussions of highly active Reddit subforums. We use a qualitative approach to understand freelancers' perceptions of freelancing platforms through the analysis of 528 posts and 7499 comments shared on the subforums "/r/freelance", "/r/freelanceUK", "/r/Upwork", and "/r/Fiverr" in different periods of 2019. To the best of our knowledge, this approach to studying freelancers' experiences with freelancing platforms has never been taken.

Our qualitative findings show tensions between freelancers valuing being in control and the necessity of finding work. Freelancers perceive freelancing platforms as useful spaces to find work and gain experience, but they also advise against using them as a main source of income. Particularly, platforms' stringent guidelines and technological features are viewed as elements that challenge the autonomous nature of freelance work, erode work autonomy, and create imbalanced power dynamics with clients. Our findings help advance the conceptual understanding of freelancers' values and struggles. These understandings allow us to provide design directions taking a worker-centred approach to gig platforms [20, 39]. Ultimately, this paper makes three primary contributions that confirm and extend previous work:

- Unlike most previous HCI work examining freelancing platforms which rely on interviews and mixed methods, we take a novel methodological approach to understanding how gig economy platforms are experienced by examining existing online forums. Similar approaches have been used for other types of gig work, such as ridesharing and microwork [42, 45].
- We advance the conceptual understanding of freelancers' perspectives and usage of freelancing platforms, a community that has been underrepresented in the gig economy literature [66].
- We consider how the design of freelancing platforms could be enhanced to better serve freelancing working practices.

2 RELATED WORK

2.1 Freelancing platforms

Freelancing platforms differ from other forms of location-independent gig work in a number of respects. Firstly, freelancing platforms primarily promote knowledge-based forms of work, such as graphic design, software development, and creative writing [34]. This type of knowledge-based work contrasts with microwork, such as photo tagging and data entry, which typically does not require specialised knowledge [44]. Secondly, freelancing platforms are commonly used for completing often larger and more complex projects where freelancers and customers collaborate to arrange projects as opposed to be hired 'on the spot' [27]. Thirdly, freelancing platforms have a unique combination of sociotechnical practices and algorithmic decisions to manage work – such as automating transactions and facilitating collaborative environments – defined by Jarrahi et al. [31] as *platformic management*. These practices facilitate an appropriation of platforms' resources to mediate the collaboration between freelancers and clients [35], unlike microwork where this collaboration is avoided by design [27]. Also, platformic management goes beyond other forms of algorithmic management, like automatic matching found in location-dependent platforms (e.g., [48]), because it allows for greater autonomy to arrange work flexibly on a project basis [4, 31, 72]. For example, platformic management includes hiring freelancers on an hourly or milestone basis which, in turn, requires multiple assessment mechanisms to monitor work [31].

Outside of HCI, various disciplines have examined the experiences of freelancers on freelancing platforms. From a sociological perspective, Sutherland et al. [65] advanced the understanding of work precarity that freelancing platforms create through their technological features. They documented the strategies that freelancers adopt to work around platform constraints, and consequently have a better experience. Management research has focused on how freelancers experience platformic management in their everyday lives, suggesting that while platforms may facilitate a structure where freelancers have greater control of their work, their autonomy is restrained by technological features such as rating systems and surveillance mechanisms [62, 72]. Similarly, other studies have identified that freelancers join platforms looking for rewarding work experiences, but that platforms' technological features, such as rating systems, constrain their creativity and autonomy [50], and amplify race and gender biases [19, 28]. These examinations highlight the impact that platforms have on freelancers' livelihood. However, most of these studies have come from outside of HCI, therefore there is a need for understanding how platforms as sociotechnical systems can support a better working experience.

2.2 Gig economy platforms as disruptors of labour

The gig economy has disrupted a wide range of professions and services. Yet, little research in HCI has attempted to understand how platforms are impacting existing work practices [15]. Two notable exceptions of location-based types of gig work include [22, 33]. Kasera et al. [33] described how understanding the nature of ridesharing, a long-established

practice in Namibia, unlocks avenues to assess workers and customers' collaborative goals, and can lead to reimagining perspectives for technologies that focus on drivers' needs. Their perspective allows them to contest the customer-centred perspective of established gig economy companies, such as Uber, calling for better understanding of the local context as a way of designing systems that empower drivers as opposed to undermining their autonomy. Similarly, Glöss et al. [22] described how the Uber system disrupts existing taxi operations around the world. Building on this understanding, they argue that Uber goes beyond being a job allocation system. Instead, it has profound socio-technical implications on drivers' income, wellbeing, and skills development that differ from the traditional taxi driving [22, 42, 59]. These two examples illustrate the value of understanding how gig economy platforms, as emerging forms of work, disrupt existing working practices. Moreover, by taking approaches that put workers at the centre of research and practice presents an opportunity to expand HCI explorations that are best suited to support labour [20].

2.3 The relevance of online communities for gig economy workers

Due to the fragmented and geographically distributed nature of gig work, many workers find and provide support through online communities, such as Facebook groups and Reddit subforums [73, 74]. Wood et al. [73] found through a mixed-methods approach across different regions that online communities are commonly the only space where freelancers can seek for strategies to join a platform, navigate platforms' systems, and share information to make freelancing a better experience. For AMT microworkers, forums have played a fundamental role in making public and evaluating their relationships with task requesters, thereby resisting their invisibility and enabling tools to push back against injustices [27, 30, 45]. More broadly, location-based forms of gig work have also benefited from online communities to organise and demand better conditions [68]. In the U.K., for instance, riders from the delivery platform Deliveroo organised through social media to collectively protest against pay drops [69]. In the U.S., ride-hailing drivers used forums to share information about pricing schemes, compare wages, and identify abuse from companies [68]. These examples illustrate that online communities are a central aspect of gig economy work as they provide a space for workers to share knowledge and collectively tackle problems.

2.3.1 The study of online communities in HCI.

The study of online communities has been an area of interest in HCI and other disciplines. Due to their dynamic environment in which members share experiences and receive social support [63], researchers in HCI have studied online communities to advance the understanding of sensitive topics, such as adolescents online sexual experiences [55], mental health disclosure [6], and women's health concerns [41]. Other research has shown that online subforums enable an advantageous space for engaging with communities in particular areas of interest, such as ethical design [26] and online currencies [36]. These examples illustrate the relevance and opportunities for using online data to understand the impacts sociotechnical systems have on particular communities.

2.4 Summary of the literature and research relevance

Online communities introduce an opportunity to explore how freelance work is being impacted by the gig economy, particularly freelancing platforms, in a naturalistic setting. Previous HCI literature has studied gig economy online communities (e.g., ride-hailing [42]) but this approach has been seldomly taken in the freelancing context. Most previous examinations on freelancers' experiences of the gig economy have come from disciplines outside of HCI (e.g., sociology, internet geography, and management). These examinations have mainly focused on working conditions and platforms' management features, overlooking how platforms disrupt the nature of freelance knowledge work. Ultimately, there is

a need for HCI to understand how freelancing platforms are changing freelance work and explore design directions for freelancers to have better working experiences.

3 OUR APPROACH

In this paper, we sampled and qualitatively analysed discussions from four Reddit subforums to understand freelancers' perceptions of freelancing platforms and their experiences with these sociotechnical systems. In this section, we review the characteristics of our chosen subforums, data collection, analysis approach, and finally ethical considerations and limitations.

3.1 Studying Reddit subforums

The website Reddit is “home to thousands of communities, endless conversations, and authentic human connection” [56]. Reddit subforums, commonly known as ‘subreddits’, are categorised by areas of interest, such as programming or design, in which pseudonymous users post, comment and rate content [3]. In this paper, we refer to those users who start a post as *posters* and those who comment within those threads as *responders*. We refer to the combination of a post and its associated comments as *threads*. When alluding to a particular thread, we mention the subforum they belong to, followed by its thread labelled number (see Table 2), e.g., “/r/Fiverr, thread 31”.

3.1.1 Characteristics of our sample.

The chosen subforums for this study were “/r/Fiverr”, “/r/freelance”, “/r/freelanceUK”, and “/r/Upwork”. These subforums were chosen due to their membership size (see Table 1 for number of members), active participation, public accessibility, and direct relation to the topics freelancing platforms and freelance work more broadly.

Table 1. Number of subforum members at the time of writing

Subforum	Members (Sept. 2020)
/r/Fiverr	10.8k
/r/freelance	156k
/r/freelanceUK	2.0k
/r/Upwork	12.9k

“/r/Fiverr” and “/r/Upwork” are the largest and most active Reddit subforums dedicated to discussing topics of their respective freelancing platform without platform oversight, and thus enabling a candid space for users to openly share their experiences. Discussions on these subforums typically focus on exchanging platform-specific advice from more experienced users. From broad guidance on how to land a project on the platform Upwork, e.g., “*Tips for scoring my first gig?*” (/r/Upwork, thread 192), to exposing injustices and seeking for support for dealing with an abusive client on Fiverr, e.g., “[*Help*] *I'm being blackmailed from buyer on fiverr*” (/r/Fiverr, thread 36).

On the other hand, “/r/freelance” and “/r/freelanceUK” have more broad discussions about freelance work and a higher sense of community support that allowed us to better understand what it means to be a freelancer. In addition to providing punctual advice, “/r/freelance” is a community that creates a space for its members to discuss issues that can go beyond work-life for aspiring and experienced freelancers alike. Discussions among members in this community range from moral dilemmas, e.g. “*Should I take down a website if there was no contract and the owner changes his mind all*

the time.” (/r/freelance, thread 128), to productivity and work-life balance support, e.g. “How do you stay sane working from home?” (/r/freelance, thread 179). “/r/freelanceUK” is by far the least active subforum of our sample. We chose to include it in the analysis to account for any location-specific discussions (in this case the United Kingdom). However, from our analysis no particular differences emerged between discussion in the “/r/freelance” and “/r/freelanceUK” subforums. Future work might explore geographic-specific differences when it comes to discussions around freelancing platforms.

3.2 Data collection

A total of 1551 initial posts were retrieved from the chosen subforums using the Pushshift Reddit application programme interface (API) [53, 57]. The posts were then imported to Microsoft Excel for data management. The data included the title and body of the post, poster username, timestamp, id, unique URL, and total number of comments. From the initial dataset, we excluded all posts that were not available (e.g., those removed by the community moderators), spam, and self-promotion (e.g., posters advertising their services), leaving us with a total of 759 posts and 8719 comments. From these, we conducted an inductive complete coding approach [11] (see 3.3 Analysis). We then excluded those threads (post and associated comments) which did not have at least one code associated with them. These excluded threads were normally outside of the scope of this research project such as threads related to a specific tool. For instance: “Best types of portfolio items for audio/music production and voice over?” (/r/Upwork, thread excluded from the analysis). The final dataset included in the analysis comprised of 528 posts written by 438 original posters and had 7499 related comments (AVG = 14.20; SD = 14.75; MAX = 112; MIN = 0). The first author manually retrieved all accessible comment data per post and thoroughly recreated the conversation threads in preparation for analysis. See Table 2 for an overview of the data included in the analysis and Figure 1 for clarification of the inclusion and exclusion process.

We sampled data from different periods of 2019 to capture discussions at regular intervals throughout the year and account for any season variability. We arbitrarily chose to extract data from all subforums for the whole month of January to familiarise ourselves with the dataset. Once analysed (see 3.3 Analysis), we arbitrarily crawled one-week samples of the months of March, July, and November to capture a broader range of perspectives at different moments of the year. Given the large amount of data generated from the subforums, we only decided to include one-week samples rather than the whole month.

Table 2. Overview of data included in the analysis

Subforum	Included posts and thread numbers per subforum	Original posters	Comments	Avg. num. of comments per post	Sd. num. of comments per post	Max. num. of comments per post	Min. num. of comments per post
/r/Fiverr	43	26	328	7.62	8.5	36	0
/r/freelance	202	194	3332	16.49	17.47	112	0
/r/freelanceUK	7	6	19	2.71	3.14	8	0
/r/Upwork	275	220	3820	12.98	12.98	104	0
Total	528	438	7499	14.20	14.75	112	0

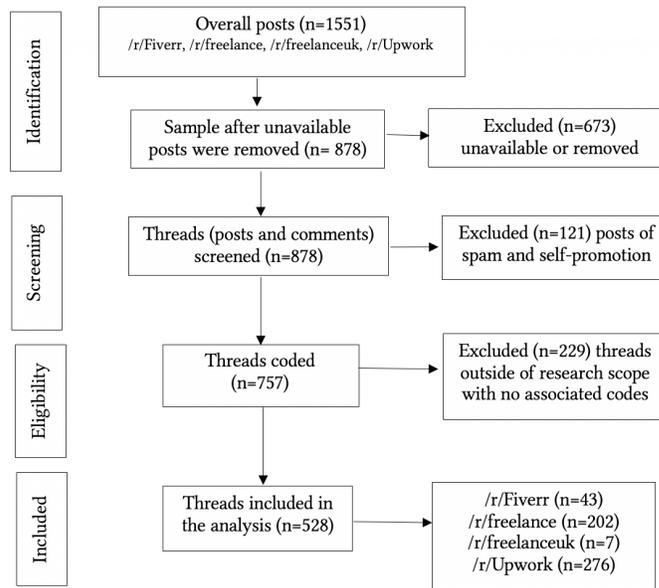


Figure 1: Thread inclusion strategy. PRISMA Flow Diagram illustrating the selection criteria of sampled posts from top to bottom.

3.3 Analysis

For this study, all the data were thoroughly collated into the qualitative data analysis software NVivo (version 12) [51] for analysis. We performed an inductive thematic analysis [10, 11], guided by the focus on freelancers' discussions of freelance work and freelancing platforms. We took a complete coding approach [11], whereby we aimed to identify as many codes that related to our research focus. The first author gained familiarity with the data and created initial codes by systematically reading threads from the 4 subforums, starting with the whole sample of January. In turn, these codes were discussed and iterated by two authors, which resulted in an initial codebook. After that, the codebook was applied to the one-week samples of March, July and November. Then, codes were sorted in mind maps to identify patterns across the dataset. We constructed two broad themes which are presented in the findings as separate subsections in turn: (1) Being a Freelancer; and (2) Freelancers' Perspectives on Freelancing Platforms.

3.4 Ethical considerations and limitations

In addition to our institution's ethics board approval, we sought to minimise ethical risks for subforum posters and responders. Therefore, following guidance from Hewson et al. [21], all quotes presented throughout this paper have been anonymised and information that would provide unnecessary discoverability has been omitted. To address privacy concerns, we decided to collect and analyse publicly available data from pseudonymous users which agreed to Reddit's privacy policy [58] and did not include any posts that were removed by the original poster, but still retrievable through the Pushift Reddit API. We recognise that previous literature engaging with sensitive topics on Reddit (e.g., [1, 2]) has altered the wording of their findings to prevent them from being traced back; however, we believe the nature of our study and findings presented on this paper do not fall under this sensitive category and as such have not altered quotes.

While analysing naturalistic data in the public domain has advantages [63], we also recognise its limitations. Reddit subforums represent only a portion of other support forums dedicated to the freelance community. The discussions in

these subforums are limited to those self-selected posters, overlooking those people who are not aware of these spaces or choose not to engage with them [63]. Moreover, the audience engaging with these subforums are primarily English-speaking, and while the most prominent freelancing platforms conduct business in the English language, an important number of freelancers are from diverse geographies [34]. Findings in this paper are also restricted to particular time spans of 2019 and can only reflect posters' views during this period. For these reasons, our findings are not necessarily generalisable to the wider freelance population, however, where possible we relate them in the context of those findings from previous work.

4 FINDINGS

Our findings present two constructed themes from the analysis. Firstly, we present posters' perspectives on freelance work, including what elements of freelancing are valued, and what forms of complexity and precarity are associated with freelancing. Secondly, we present posters' perspectives on freelancing platforms. Platforms are seen as sociotechnical systems that bring opportunities for mitigating precarity in freelancing, but simultaneously are creating disruptions in freelancing and negating aspects of working life that freelancers value.

4.1 Being a freelancer

Across our sample, posters discussed their perceived advantages and motivations for pursuing freelance work, as well as the intricacies and precarities that encompass this profession. This theme captures the nuances of doing freelance work and sets the scene for the subsequent theme.

4.1.1 *Being in control.*

A common sentiment that we found in our sample is that posters pursue freelance work because it grants high levels of autonomy. Being a freelancer means having control of how work is accommodated into everyday life, as well as control in deciding the types of work that are accepted. Control is a key theme in this work. For example, in a discussion of motivations for being a freelancer, one responder explained that they value the control freelancing enables:

(/r/freelance, thread 50) "For me it's kind of simple. I like getting to decide what jobs I do and also getting to choose how I do them. Essentially I like to be in control and freelancing lets me be in control."

Similarly, a different responder under the same thread explained that their motivation for pursuing freelance work was to have control of their time:

(/r/freelance, thread 50) "I have greater control of my time. I don't necessarily work less than if I had a jobey-job [regular job], but I can control when I work and fit it around my life rather than the other way [a]round."

Indeed, being in control of work arrangements allows for a better integration of work and personal life. This seems to be a greater motivating factor for many freelancers than money. Having control over this work-life integration can be particularly beneficial for people who live with chronic health conditions or have caring responsibilities [47]. For instance, one responder recounted how, despite earning less money, they preferred the autonomy of freelancing because they could better attend to their wellbeing and look after personal matters, something that would have been difficult with a more rigid job:

(/r/freelance, thread 108) “I’ve freelanced on and off for the past few years, mostly recently, and I’m picking up some work: roughly 30% or less of my previous full-time income. Since quitting my job, I’ve been able to take care of health issues, be with my family while a relative was on his deathbed, and babysit my dying pup. It’s also nice to split the day up how I want to and go for a simple afternoon walk to wake up.”

At the same time, freelancers recognise that the high levels of autonomy and control come with greater responsibility. Being a freelancer requires the ability to manage an array of responsibilities which often go beyond professional skills. Tasks such as finding clients and administrating finances are part of freelance work that demand a significant amount of time and typically go unpaid. For instance, in a thread discussing advice to transition from regular employment to freelance, one responder advised:

(/r/freelance, thread 64) “Recognize that most likely you will need to work more than you do at your full time role to try and make your business successful and that most of the time you’re working will not be paid (trying to find business, networking, exploring paths to drum up business, writing up proposals that aren’t accepted, setting up website, shopping for business needs, etc)”

Beyond business-related responsibilities, the high levels of control over work also necessitate a particular attitude. Freelancers have to carefully plan for periods of intermittent work, be driven to work autonomously, and endure periods of work in isolation. These tradeoffs of being in control might be, as mentioned by one responder, ‘not for everyone’:

(/r/freelance, thread 50) “I definitely know that self-employment / business ownership is not for everyone - can you pay the school fees if you don't have any clients for a month? can you self-motivate when nobody will know you're watching Netflix instead? do you need regular interaction with other people (like work colleagues, although co-working spaces can help with that)?”

Posters view having control over their work and how it is incorporated into their lives as a principal benefit of freelance work. However, they recognise that being in control also requires a wide range of responsibilities that often go beyond their professional expertise and necessitate a particular mindset to have a successful freelance career.

4.1.2 *Cultivating networks of clients.*

Closely linked to being in control of work is the ability to determine how to collaborate with clients to fulfil their projects. Contrary to the manager-employee relationship akin to regular employment, freelancers have a relationship that resembles a business collaboration with their clients. As a result, freelancers have control to negotiate work arrangements, milestones, and the best approach to meet clients’ objectives. When discussing the benefits of freelance work, one responder mentioned:

(/r/freelance, thread 10) “One of the nice things about this kind of work [freelance] is that it's more of a business-to-business kind of relationship than the master-subordinate relationship you usually see with employment. You're judged by what you get done (and what it costs, of course) and mostly you just do what your experience and judgement tell you will solve the problem and get good results most efficiently and effectively.”

Indeed, this ‘business-to-business’ relationship is central to the freelance identity of being in control. Seeing clients as equal partners – rather than employers – enables a dynamic that provides freelancers agency to draw boundaries and push back against abusive practices. Exemplified by one responder:

(/r/freelance, thread 110) “you should really think of people as clients and not employers. You are not an employee and it’s an important legal distinction plus it’s important to treat clients like clients so you can have a healthy freelance relationship with them and make sure you[re] not treated like an employee and taken advantage of.”

Another crucial aspect of freelance work is cultivating networks of clients [49]. Having a positive reputation among a network of clients creates a ripple effect that leads to new work opportunities. These relationships are cultivated by trust and high-quality service rather than extraordinary skills in a particular professional domain. One responder explained how reputation and these networks of clients often exceed skills as the avenue to successful freelance work:

(/r/freelance, thread 50) “In the Freelance world, Skills are overrated, while Reputation and Relationships are underrated. You need the competence to do what you’ll say you’ll do of course; but cultivating a small network of clients who know you, like you, and trust you to deliver will lead to repeat and referral business that will keep you busy.”

Likewise, another responder stressed that in fact freelance work becomes much more profitable when having a network of clients that enjoy the work one delivers:

(/r/freelance, thread 64) “Freelancing can be extremely lucrative if you’re good at what you do and have a wide network of people who you ENJOY working with”

Constructing a positive reputation with a network of clients and having a genuine collaboration with them are core elements of successful freelance work. Posters viewed client relationships as equal partnerships that not only create a beneficial source of work but also enable control to push back against demanding clients.

4.1.3 *Precarity.*

Freelance work, nonetheless, has associated precarity. Work uncertainty, and its linked financial pressures, were issues that featured extensively in our sample. A common difficulty of freelance work, especially when getting started, is building a network of clients. For instance, one responder shared how underestimating the process of finding clients led them to struggle with paying the rent in their early days as a freelancer:

(/r/freelance, thread 65) “The biggest thing I did poorly when transitioning to freelance was being naive about how damn hard it is to find new clients, and I paid for it big time with months of really close calls back in 2014. Talking about not being able to pay rent type of close calls.”

Pursuing freelance work may require careful planning for moments of ‘feast or famine’ [70]. Due to the contingent nature of the freelance work, budgeting for unexpected circumstances can be difficult. Also, freelance work demands prudent management of business finances, such as filing taxes, that are typically taken care of by employers in regular employment. A responder narrated how they exhausted their savings in a short period due to a combination of factors that were beyond their control:

(/r/freelance, thread 64) “The long term retainer based client I had (which at the time gave me 80% of my income) cut my hours in half in January. Then I miscalculated the tax owing and I needed to pay a lot more than I expected in March. Then my dog got really sick and spent 10 days in the emergency vet clinic. I had, over two or three months, depleted all my savings.”

Prioritising work over personal life is another aspect that negatively impacts freelancers when not managed carefully [23]. Working long, irregular hours to manage responsibilities and deliver high quality work can easily blur the lines between work and personal life. Furthermore, detaching from work can be especially difficult in freelance work because of the notion that time invested in the business can be an opportunity to generate income. One responder stressed how establishing work-life boundaries is particularly important in freelance work:

(/r/freelance, thread 142) “I find a common stresser [sic] for freelancers (because understandably their lives depend on their work) is never setting office hours. I’d be stressed too if I worked a 16-hour day and as those days pile on, one tends to miss things. Set standard office hours. Organize tasks. Set reminders. Keep to your office hours and do not answer correspondence during off-hours (no worth-while client is going to otherwise dump you because they had to wait 14 hours for a response between 6pm-8am).”

Closely related to the concept of cultivating networks is remaining available for clients around the clock. As others have found [12, 13], this constant availability can hinder freelancers’ work-life balance, and lead to difficulties detaching from work. Mirroring Gold & Mustafa [23] notion that ‘work always wins’ (over personal life) for freelancers, one responder encouraged a poster to take time off and learn how to decline projects:

(/r/freelance, thread 47) “As a freelancer I know it can feel like you need to say “yes” to every project, especially from current clients that you want to retain, but remember a healthy work/life balance isn’t just good for you, it keeps you fresh and ready to produce quality work for your clients, too.”

Posters were sincere about the precarity of freelance work. Especially those new to freelance work mentioned the challenges of finding clients, resulting on periods of severe financial pressure. Even though freelancers appreciate being in control of how work integrates into their lives, they also recognise the difficulties of detaching from work and working long and irregular hours to meet the business demands. If not managed carefully, work contingency can spillover into freelancers’ personal lives, leading to stress and poor wellbeing.

4.2 Freelancers’ perspectives on freelancing platforms

In the previous section, we unpacked how freelancers perceive freelance work as a way of staying in control of their careers even when experiencing precarity and – at times – less money than regular employment. In this section, we unpack how freelancing platforms disrupt aspects of control that freelancers value in their work, while at the same time bring new opportunities.

4.2.1 Losing control.

Freelancing platforms create an arrangement of work that reduce freelancers’ autonomy and control [72]. At the same time, contrary to the work arrangements of regular employment, freelancing platforms do not need to follow the same regulations as an employer would for protecting workers. Therefore, when using freelancing platforms, freelancers bear

the typical risks and precarities, while having reduced control. As these responders put it, it's 'the worst of both worlds', like 'being employed' without any of the benefits:

(/r/freelance, thread 101) “[Responder 1] [...] Putting other people in the driver's seat of your career is usually called 'being employed'. So why lose the control while also having no benefits, job security, legal rights etc?”

(/r/freelance, thread 101) “[Responder 2] [...] You're completely right, handing over your career to Upwork is like having a boss but also being a freelancer... the worst of both worlds.”

Freelancing platforms' technological features and guidelines are designed to ensure that profit is generated [31, 35]. This means that their systems control work arrangements and prioritise client convenience with the goal of creating profit. One responder felt that platforms were to benefit the client not the worker:

(/r/freelance, thread 46) “Upwork isn't a freelancing platform. It's a gig economy platform. That means they set all of the rules and guidelines, control supply and demand, and ensure that their customers are happy.”

A concrete example of such a technological feature that constrains control over work is the worker rating system that platforms typically use. With these systems a client rates the work of a freelancer (e.g., giving them stars out of 5). Rating systems, similar to other forms of gig work [42, 45], create an unbalanced power dynamic between freelancers and clients. This mainly results in clients having a more advantageous position of power when evaluating freelancers. For example, one responder shared that ratings impact their ability to find work, but have little effect on the client side:

(/r/Upwork, thread 151) “I swear it terrifies me every time I take on a new client. If there's one major thing I don't like about Upwork it's the clients have the upper hand IMO [in my opinion]. I feel like a bad rating hurts freelancers much more than employers on Upwork.”

This conception of power imbalance mirrors Kinder et al.'s [35] findings of rating systems as elements that reduce freelancers' autonomy. Another way in which ratings constrain freelancers' control over work is by adding pressure to provide additional (usually unpaid) work to their clients to avoid a bad review. For instance, on Fiverr once the project is delivered clients can request modifications before accepting the project and rating the freelancer. This system can lead to frictions and unbalanced power relationships between freelancers and clients [17, 31]. For example, one poster narrated how their client kept demanding additional modifications, and they felt disempowered to push back because of the risk of getting a negative rating:

(/r/Fiverr, thread 3) “I am doing illustrations on Fiverr for a long time [...] I have this client that is super demanding, even though I sent him a sketch and he approved it, he keeps suggesting changes to the final product saying he isn't happy with it (he paid 20\$ [sic], doesn't wanna pay more for revisions). I would just refund him but I already spent so much time, I feel like I deserve the money...But I am afraid he will give me a bad rating being this picky.”

Platforms' guidelines also make very clear that they can suspend freelancers' accounts at their discretion [31]. By suspending freelancers' accounts, platforms dismiss a record of work that involves considerable time and effort. Most importantly, for freelancers' losing their account potentially means losing their earnings. Echoing Gray & Suri's [27] concept of algorithmic cruelty where platforms overlook in their designs the human labour that goes into their systems;

one poster shared how their account was suspended with no clear explanation, losing access to work opportunities as well as the money they earned in their last project:

(/r/Upwork, thread 80) “My account was suspended few days ago and I contacted upwork via twitter since I could access none of their support (help support and community). They told me I had violated their TOS [terms of service], something I am very sure was not the case. [...] I have no problem with them suspending my account even if I neither drove clients out of upwork nor got paid outside upwork. But I got paid just before the suspension and I have no access to that money. It seems very fishy that they held back the money without giving me (at least an email) details of the Violation.”

In other cases, account suspensions were caused by mere glitches in the system and could be restored through human intervention. Even though accounts can be restored, the emotional burden of losing access to a source of income can hardly fade away. For example, one poster narrated how their account was automatically suspended after an identity verification error. They emphasised how Upwork could have attempted to corroborate their identity in other forms rather than suspending their account. It was not until they reached out through Twitter that they got their account back:

(/r/Upwork, thread 177) “Last week I uploaded my ID when I noticed there was an additional badge I could list on my profile. It's the same ID I showed during the video verification I did two years ago. A few days later my account was suspended. [...] This seems like a drastic measure to take when the issue could be resolved with a 1 minute phone call or another video call where I hold my ID up to my face or I provide other forms of ID. [...] I @ them [on Twitter] and they got back to me within a few minutes asking for my UpWork username/email through DM which I gave. Within an hour I received an email that my account had been fully restored.”

Freelancers recognise the amount of control platforms exert over their work. Technological features such as rating systems constrain the types and variety of jobs that freelancers can obtain. Rating systems can also disempower freelancers to push back against abusive clients because of the possibility of damaging their reputation. Ultimately, whether deliberately or not, platforms control freelancers' earning potential, and even hold total discretion over the suspension or termination of accounts.

4.2.2 *Gatekeeping networks of clients.*

Freelancing involves cultivating networks of clients. This is true of freelancing platforms, but the client-freelancer relationship is heavily policed and constrained. Freelancing platforms are designed to prevent the development of relationships between clients and freelancers outside of their systems [35]. Because platforms profit from client-freelancer transactions, they design their systems to protect this interest and terminate the accounts of those users who jeopardise their profit. One responder viewed platforms intentionally disrupting and controlling the client relationship to generate profit and freelancers having little agency to dispute this control:

(/r/freelance, thread 101) “Upwork et al does everything in their power to disrupt this [client-freelancer] relationship and erect a wall between you and your clients, because this is how they scoop the cream off the top of everything you do. They will ban your ass in a heartbeat if you try to circumvent this wall, because their existence depends on it. By strictly controlling the client relationship, they own you and your business because you can't leave unless you start over from scratch.”

Another example in which platforms disrupt the creation of a network of clients is by limiting the information of freelancers' profiles outside their systems. For example, mirroring Jarrahi et al.'s [31] concept of platforms gatekeeping information to control relationships, one responder shared how Upwork displays incomplete profile information to prevent freelancers from promoting their work:

(/r/Upwork, thread 142) "Upwork intentionally makes your profile page less robust/winning when it appears outside of Upwork because they don't want you to be able to use it to promote yourself to direct clients and leave them out of the payment pipeline."

Account suspension was a topic of recurrent discussion that not only showcased platforms' control, but also closely linked to platforms preventing client-freelancer relationships to be developed outside of their systems. For instance, one poster illustrated how their account was terminated for having their contact information displayed on their profile:

(/r/Upwork, thread 180) "Upwork shut down my profile [...] because I had my portfolio linked in my bio, which had my contact information. Apparently, Upwork doesn't want the client to be able to find your contact info through your Upwork profile, because then Upwork gets cut out of the deal and doesn't get paid."

Another poster shared how they were suspended for directly proposing to work outside the platform environment to a client:

(/r/Upwork, thread 133) "I had suggested work aside from the active Upwork job to be done outside of Upwork. A bot caught that and banned me."

Another element that factors into developing networks of clients in freelancing platforms is the high levels of competition, particularly in saturated markets. Finding clients on platforms in the beginning can be challenging without having ratings corroborating freelancers' skills. Even those freelancers with prior professional experience can struggle to secure projects until they develop positive ratings. One responder compared the experience to manual, artisan labour to exemplify the importance of profile reputation to find work on Upwork:

(/r/Upwork, thread 126) "Getting started [in Upwork] can be hard and there's a lot of luck involved. Your former experience doesn't matter if you don't have a solid portfolio / online presence backing it. Consider UpWork to be a god forgotten town in the wild west. You are a new comer that claims to be an experienced carpenter. Nobody's going to believe you until someone entrusts you with fixing their roof. Things are tough especially if you are in an over saturated market like software development or design. Once you get your first 1, 2, 3 jobs everything will change."

Even though freelancing platforms create highly competitive markets, some freelancers leverage this competition to boost their skills and attract more clients. Platforms, as digital marketplaces, provide access to viewing freelancers' portfolios, former clients, and featured skills. Freelancers can appropriate these functionalities to benchmark top users in their same market and draw inspiration to hone their profiles. One responder shared how, when getting started on Upwork, they adopted the strategy of screening the profiles of freelancers who got hired for bids they lost. Based on these screenings, they updated their profile and kept up with the skills in high demand:

(/r/Upwork, thread 25) "the freelancing world *is* tough, even more in a site like Upwork where you are basically competing with the rest of the world. [...] One of the most humbling activities I did on Upwork when

I wasn't getting any [work] was to check past proposals where I seemed like the perfect fit, and see who they ended up hiring. And I say it was humbling because I then realized how "uncompetitive" I was, to put it lightly, when compared to the rest of the world. But it was a good thing, as that allowed me to re-work myself, my profile, my skills, what I was selling, to who and how (and getting jobs in consequence)."

Cultivating a network of clients on freelancing platforms is heavily constrained by technological features and guidelines as well as highly competitive markets. Freelancers recognise that platforms severely penalise the formation of networks outside their systems by suspending the accounts of those who circumvent platforms' guidelines. Moreover, forming networks of clients within platforms can be highly competitive and require the development of a reputation in their system. Unlike networks of clients in traditional freelance work, freelancing platforms play a fundamental role in mediating and disrupting how relationships are created.

4.2.3 *Mitigating precarity.*

Platforms facilitate an infrastructure that eases the process of finding work. This infrastructure for finding clients was perceived as a core advantage that make it worth losing control by adhering to platforms' structures and allowing them to mediate relationships with clients. Echoing Jarrahi et al.'s [31] study of the affordances of Upwork, a responder positively described this platform as a 'middle man' to reduce effort and precarity:

(/r/freelance, thread 169) "it is hard to find clients the traditional way. [...] Upwork was a great idea. A middle man till work is completed."

Platforms were recognised as a beneficial source of work and experience for those freelancers starting as self-employed. One responder described how they used Upwork to gain freelance experience, while also stressing the importance of not depending entirely on the platform for finding all their clients:

(/r/Upwork, thread 248) "I started out on upwork with zero FL [freelance] experience while a sophomore in college, and now I'm basically an intermediate FL [freelancer]. What I've realized is that Upwork should just be one area where we get clients. We should NOT depend on Upwork for say, more than one third of our clients."

Similarly, another responder acknowledged that using Fiverr gave them the opportunity to gain practice, but that ultimately a goal for advancing their career was to stop relying on platforms to find work. This responder highlighted the importance of progressing as a freelancer by becoming independent from third party sources of work:

(/r/Fiverr, thread 22) "If nothing else, Fiverr is a good place to start and get some experience/feedback. That's what I did, the same thing goes to upwork, pph [People Per Hour] and the others. No matter your career, if you are freelancing your objective should be to one day "Grow up" and "Move out" of the job boards."

Finding other sources of work outside freelancing platforms was often encouraged to alleviate the precarity of freelance work and mitigate the control that platforms exert over freelancers. A way for freelancers to achieve this goal of becoming independent from platforms is by developing a portfolio and promoting their work. For instance, one responder brought attention to the importance of having a 'freelancer mindset', in other words, being in control of running an autonomous business without the need for a platform:

(/r/Upwork, thread 228) “If you want to be a serious freelancer, you need to get out of the mindset that you need to use a freelancing platform to be successful. While platforms are helpful, you are running a business, so you should learn how to market yourself and find clients on your own.”

Likewise, other posters shared advice on how freelancers can promote their work to attract other sources of clients. For example, when asked about alternatives to Upwork, one responder mentioned that the best option is to create a portfolio and learn ways to promote it independently:

(/r/Upwork, thread 208) “The best place for most people to migrate is going to be their own website. Make your own portfolio and do some work to SEO it so it shows up for the right keywords, run some social media, cold call some peeps, hustle yourself some solid clients and you won't have to share a % [percentage].”

Another dimension of the need to have diverse sources of clients is that freelancers can, in principle, use multiple platforms. One responder explained how they appreciated Upwork as a place to find work, but that being reliant on a single platform is very risky. However, they did not think there was a good choice of platforms:

(/r/Upwork, thread 123) “I've tried literally every other platform to try and diversify from Upwork and they have all been utterly shit. It's quite amazing how disliked amongst freelancer's [sic] Upwork is and yet it continues to be the only really viable platform out there. I personally don't have an issue with it, it's been very good to me, but having so much of my income reliant on a single channel makes me very nervous.”

Posters voiced the precarity and difficulties of finding clients in freelance work, and thus freelancing platforms present an opportunity to mitigate these challenges. Freelancing platforms were recognised as spaces to get started, gain exposure and experience, but ultimately introduce other forms of precarity that required freelancers to consider other alternatives to generate income. A strategy to counterbalance these drawbacks is to promote one's portfolio independently, thereby avoiding the reliance of platforms as unique sources of work.

5 DISCUSSION

In this paper, we have explored freelancers' perceptions of freelance work and the use of freelancing platforms. In this section, we first discuss the role of freelancing platforms in the context of knowledge-based freelance work. We also discuss how our findings reveal the nuanced values freelancers have of freelance work and trade-offs that freelancing platforms offer. Then, we extend the discussion of our findings and previous literature, by providing worker-centred implications and critiques of freelancing platforms.

5.1 A contemporary landscape of online freelancing

We have found tensions and trade-offs between freelancers' values and what freelancing platforms offer workers. Our findings extend the conceptual understanding of freelance work and situates freelancing platforms in what we describe as a contemporary landscape of online freelancing. In this section we further discuss how three crosscutting subthemes identified through our findings (control, networks, and precarity) surface implications for the future of knowledge work.

5.1.1 *Control.*

Control was explored in sections 4.1.1 and 4.2.1. A sentiment that came across strongly among posters was that freelance work is valued because of the degree of control one has over work. Work-life balance appeared to be behind much of

the reasoning for this. Echoing Massie & Elmore [47], posters voiced how freelance work gives them control to accommodate work into their personal life as they see fit, as opposed to regular employment which often comes with rigid schedules and work arrangements. Being in control of types of work that are accepted and how to approach them was also viewed as a significant advantage of freelance work. Still, our findings suggest that while experiencing high levels of autonomy and independence are primary drivers to pursue freelance work, much of the success depends on “individuals’ own efforts” ([5]p. 26). This “complicated version of freedom” ([29] p. 18) has been akin to freelance work for over a decade in creative industries such as film and television [61], indicating little change for knowledge-based freelance work.

Platforms’ features and guidelines were seen as reducing control over the benefits of freelance work, while at the same time, enabling opportunities to ease common difficulties that result from being a freelancer. On the one hand, platforms were perceived to control the supply and demand of work, unbalance the power relationship freelancers have with clients, and hold the power to suspend work and access with no warning or reasons given. On the other hand, some platforms’ features, such as accessing competitors’ profiles, were viewed as opportunities to develop skills and land projects. Similar to previous research [24, 31], our findings speak to the affordances platforms provide to find clients, which was particularly appreciated by those getting started as freelancers.

As knowledge work arrangements continue to become more flexible and mobile [25], freelancing platforms have the potential to open up opportunities to pursue freelance work. However, we found that posters discussed strategies to resist platformic management and stay in control of their careers by limiting platform dependence. This notion echoes research discussing disproportionate perception of algorithmic control when workers rely on gig work for significant portions of their income [4, 8, 37]. At the same time, our findings cast a light on the value of freelancing platforms for developing skills and gaining experience for novice freelancers, while enabling a diversified portfolio of work for more experienced freelancers. A more pressing question for future work is how can platforms, as socio-technical systems, support rather than hinder the control over work-life that freelancers value in a contemporary landscape of online work?

5.1.2 *Networks.*

Networks were explored in 4.1.2 and 4.2.2. Similar to Nardi et al.’s [49] concept of ‘intensional networks’ intended as deliberate creation, maintenance, and activation of one’s social networks among knowledge workers, posters mentioned the importance of carefully cultivating professional relationships with clients that appreciate their work and come back with repeated work. These client relationships were intrinsic to their work, but also to their status and identity as knowledge workers. Client relationships were seen as business-to-business relationships with a balance of power between the two and dignity on both sides. Freelancers’ core value of ‘control’ was viewed as a result of having a collaboration with clients as equal partners with which work can be arranged flexibly on a project basis.

Freelancing platforms could reduce the amount of networking required, giving access to global markets of clients. However, there were crucial drawbacks. Firstly, freelancing platforms challenge freelancers’ control over the types of jobs that can be obtained, which are dependent on reputation and highly competitive markets. Secondly, in contrast with the perception of a ‘business-to-business’ collaboration with clients, platforms’ management mechanisms, such as ratings, cause an unbalanced power dynamic where freelancers can feel disempowered to push back against clients’ demands to avoid damaging their reputation. This perception of rating systems as disempowering elements mirror previous studies of freelancing platforms [50, 65, 72]. Thirdly, Kinder et al.’s [35] proposition of platforms preventing disintermediation also was mentioned as a critical constraint of autonomy. By platforms holding power to suspend and

terminate freelancers' accounts under their discretion, they ultimately control freelancers' record and reputation, making it nearly impossible to recuperate the effort invested in their work should they leave the platform.

Freelancers' strategy of diversifying their sources of work clashed with the fact that different networks needed to be built between different platforms and between work done on and off platforms. While freelance work has generally focused on local networks of clients, technological advancements have unlocked opportunities for knowledge-based professions to become mobile and flexible worldwide [24, 25]. At the same time, fostering both types of networks (*on* and *offline*) is not an easy process as freelancing platforms actively gatekeep freelancers' relationships and reputations, leaving freelancers to develop strategies to resist these barriers, such as marketing their own website. A contemporary landscape of online freelancing requires the exploration of solutions to support the management of networks across freelancing platforms and off-platform clients.

5.1.3 *Precarity.*

Precarity was explored in sections 4.1.3 and 4.2.3. We found that periods of being unable to find work are an accepted norm in freelance work and something that freelancers say they must plan for. As a result, freelancers experience financial instability that can pressure them into accepting more work when it is available, and thus undermine their work-life balance. Indeed, these tensions between sustaining a healthy work-life balance and developing financial stability have been studied previously in HCI and beyond [14, 23, 29, 60]. In our sample, posters were candid about these issues and supported each other to mitigate the trade-offs, highlighting the relevance of online communities for freelancers to seek advice and support each other.

Paradoxically, freelancing platforms can mitigate some precarious aspects of freelance work, while also generating new forms of precarity through platformic management mechanisms. When analysing posters' views on freelancing platforms, we found that the opportunity to find work was perceived as the primary advantage of these systems. Similarly, Jarrahi et al. [31] found that an affordance of Upwork is providing freelancers with outreach to a global network of clients. However, platforms bring about lack of control and new forms of precarity through management systems that constrain the autonomy that freelancers value of their work, especially when it comes to being subjected to platforms' rules, such as account suspension, work assessment features, and client market control.

By diversifying their sources of work, freelancers could mitigate the contingent nature of freelance work. Yet, in their current state, freelancing platforms do not allow for easily diversifying freelancers' sources of work and, in fact, prevent disintermediation from their systems. We found that various forms of platformic management [31] were perceived as mechanisms that discourage freelancers to use these systems as a reliable source of work. As the gig economy model continues to expand across multiple professions, online freelancing is no longer merely associated with the precarity of job contingency and constant availability, explored in previous literature [23, 61]. Instead, contemporary online freelancing also grapples with new forms of management and worker control through semi-automated practices that reduce worker autonomy that is valued from being a freelancer.

5.2 **Towards worker-centred design of freelancing platforms**

We found that freelancers call for greater control over their careers, reputation, client relationships, and work arrangements. These calls for independence in knowledge-based gig work contrast with calls for improvements in location-based gig work, such as granting workers' rights, employment benefits, and safety nets [18, 38, 64, 68]. We also found that freelancing platforms were sometimes viewed as stepping stones to gain experience and support career trajectories, mirroring recent work in [7, 8]. It is uncommon that other forms of gig economy work provide workers

with opportunities to develop professional skills and explore career possibilities. Typically, other forms of gig work, such as ride-sharing and microwork, provide little incentives for workers to grow professionally. Similarly, interest from workers to cultivate long-lasting relationships with clients is rare in other forms of gig work, perhaps except for domestic services [68].

Building on our findings and previous literature (e.g., [20, 22, 33]), we take a worker-centred perspective to provide design directions for improving freelancing platforms. We propose four directions for design and practice to enhance the experiences freelancers have when conducting working through freelancing platforms.

5.2.1 Worker-centred platform design should provide transparent ratings and contracts.

In our analysis, we found that rating systems can negatively impact the working experience and erode the control freelancers have over finding work and collaborating with clients. A worker-centred optimisation of rating systems requires transparent review processes that go beyond a star or a percentage and gives freelancers constructive feedback to improve their services. Glöss et al. [22] have suggested implementing a qualitative approach to ratings where workers' evaluation are visualised with words rather than numbers. In turn, having transparent and less rigid rating systems should contribute to a more balanced collaboration with clients. We propose that optimisation of platforms should have mechanisms for freelancers to pull out from projects and charge for additional services without the fear of a bad review.

5.2.2 Worker-centred platform design should encourage professional development.

Intertwined with rating systems is freelancers' reputation and the tension of losing it once freelancers leave or are suspended from the platform. A worker-centred reputation system would allow freelancers to 'carry their ratings' [54] across different gig economy platforms, thus granting greater control over freelancers' portfolio, reputation, and career path. Also, our findings show how platforms are used as a way to gain experience and, in some cases, users even appropriating their functions to learn from fellow freelancers' profiles. There is scope for platform designers to enable career path opportunities for freelancers to develop their skills in particular niches, echoing Blaising et al.'s call for platforms promoting training for freelancers' to adapt to market fluctuations and demands [8]. At the same time, platforms should provide stronger support for those freelancers getting started on their systems to navigate the market, platforms' rules, and land projects.

5.2.3 Worker-centred platform design should enable ecologies of systems.

We identified freelancers' perceived value of cultivating a network of clients. As our findings and previous work suggest [35], freelancing platforms are designed to prevent disintermediation. A worker-centred reimagination of these systems would champion the promotion of freelancers' profiles outside of their environments. In this scenario, platforms could play the role of mediating secure monetary exchanges and skill-matching rather than having a managerial function. Also, freelancing platforms could support an ecosystem of applications for collaboration among freelancers and clients rather than gatekeeping communications through their systems. A prime example of successfully implementing ecologies of cooperation systems is the platform LeadGenius, which – by design – enables structures of worker cooperation and support to tackle specific business objectives, resulting in benefits for all involved parties [27].

5.2.4 Worker-centred platform design should prevent power asymmetries.

Finally, in their current state, platforms' guidelines and features favour clients' needs and profit generation. This asymmetric power dynamic has implications for practice and policy. For example, platform designers may want to

consider mechanisms that enable collaboration between clients and freelancers to define the project scope and its evaluation metrics, thereby reducing this imbalanced 'top-down' dynamic that pushes freelancers to provide additional unpaid work fearing a negative review. This also has implications for policymakers, as we argue that more enterprises who hire freelancers through platforms should implement guidelines that strive for reducing power asymmetries. Lustig et al. [43] have begun exploring how clients can support freelancers in having fair experiences through hiring guidelines and task structures. Nonetheless, more research is needed from the client side to ensure that the freelance experience through freelancing platforms is optimised to have a genuine collaboration.

6 CONCLUSION

Freelancing platforms, as part of the gig economy model, have spurred the growth of knowledge-based forms of freelance work. In this paper, we have extended the conceptual understanding of freelancers' experiences with freelancing platforms through a qualitative analysis of four relevant freelancing subforums on Reddit. This methodological approach brings a novel perspective to the literature of freelancing platforms which has primarily used interviews and mixed methods to inform its examinations. Our findings suggest that freelancers value freelance work for putting them in control of their work-life, although this is at the expense of precarity. Freelancing platforms were perceived as systems that provide opportunities to mitigate some of the precarity of freelance work, such as providing opportunities for professional development and enabling access to global markets of clients. However, freelancers perceived platforms' management features as constraining and disrupting the control over work availability, client relationships, and reputation, leading to new forms of precarity. Thus, we argue that in the way they are currently designed, freelancing platforms should not be assumed to be the same as traditional forms of freelance work because their features and guidelines ultimately influence the degree of control freelancers have over their work.

Based on our findings and relevant literature, we discuss the role of freelancing platforms in an emerging landscape of highly flexible and global freelance work. We argue that for freelancing platforms to truly live up to their potential, they should put freelancers at the centre of their designs. Therefore, we propose design directions to improve the working experiences of freelancers on freelancing platforms. Our directions call for more transparent, collaborative, and fair systems that foster the agency over work-life that freelancers appreciate from self-employment.

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REFERENCES

- [1] Andalibi, N. et al. 2018. Social support, reciprocity, and anonymity in responses to sexual abuse disclosures on social media. *ACM Transactions on Computer-Human Interaction*. 25, 5 (2018). DOI:<https://doi.org/10.1145/3234942>.
- [2] Andalibi, N. et al. 2016. Understanding social media disclosures of sexual abuse through the lenses of support seeking and anonymity. *Conference on Human Factors in Computing Systems - Proceedings*. (2016), 3906–3918. DOI:<https://doi.org/10.1145/2858036.2858096>.
- [3] Anderson, K.E. 2015. Ask me anything: What is reddit? *Library Hi Tech News*. 32, 5 (2015), 8–11. DOI:<https://doi.org/10.1108/LHTN-03-2015-0018>.

- [4] Anwar, M.A. and Graham, M. 2020. Between a rock and a hard place: Freedom, flexibility, precarity and vulnerability in the gig economy in Africa. *Competition and Change*. (2020), 1–22. DOI:<https://doi.org/10.1177/1024529420914473>.
- [5] Ashford, S.J. et al. 2018. From surviving to thriving in the gig economy: A research agenda for individuals in the new world of work. *Research in Organizational Behavior*. 38, (2018), 23–41. DOI:<https://doi.org/10.1016/j.riob.2018.11.001>.
- [6] Balani, S. and De Choudhury, M. 2015. Detecting and characterizing mental health related self-disclosure in social media. *Conference on Human Factors in Computing Systems - Proceedings*. 18, (2015), 1373–1378. DOI:<https://doi.org/10.1145/2702613.2732733>.
- [7] Blaising, A. et al. 2020. Career Trajectories in Online Freelance Platforms. *Microsoft Research Virtual Symposium on the New Future of Work* (2020), 1–9.
- [8] Blaising, A. et al. 2020. Making it Work, or Not: A Longitudinal Study of Career Trajectories Among Online Freelancers. *ACMHum.-Comput. Interact.* 4, CSCW3 (2020), 29.
- [9] Blaising, A. et al. 2019. Navigating uncertainty in the future of work: Information-seeking and critical events among online freelancers. *Conference on Human Factors in Computing Systems - Proceedings*. (2019), 1–6. DOI:<https://doi.org/10.1145/3290607.3312922>.
- [10] Braun, V. and Clarke, V. 2006. Qualitative Research in Psychology Using thematic analysis in psychology Using thematic analysis in psychology. *Qualitative Research in Psychology*. 3, 2 (2006), 77–101.
- [11] Braun, V. and Clarke, V. 2013. *Successful Qualitative Research: A Practical Guide for Beginners*. SAGE Publications Ltd.
- [12] Cecchinato, M.E. et al. 2017. Always On(line)? User experience of smartwatches and their role within multi-device ecologies. *Conference on Human Factors in Computing Systems - Proceedings*. 2017-May, (2017), 3557–3568. DOI:<https://doi.org/10.1145/3025453.3025538>.
- [13] Cecchinato, M.E. et al. 2015. Working 9-5? Professional differences in email and boundary management practices. *Conference on Human Factors in Computing Systems - Proceedings*. 2015-April, (2015), 3989–3998. DOI:<https://doi.org/10.1145/2702123.2702537>.
- [14] Damian, D. and Capatina, A. 2019. Seeking freelancers’ motivations to adopt an entrepreneurial career – a storytelling approach. *Proceedings of the International Conference on Business Excellence*. 13, 1 (2019), 206–215. DOI:<https://doi.org/10.2478/picbe-2019-0019>.
- [15] Dillahunt, T.R. et al. 2017. The Sharing Economy in Computing: A Systematic Literature Review. *Proceedings of the ACM on Human-Computer Interaction*. 1, CSCW (Dec. 2017), 1–26. DOI:<https://doi.org/10.1145/3134673>.
- [16] Donovan, S.A. et al. 2016. What Does the Gig Economy Mean for Workers? *Congressional Research Service: Report*. (2016), 1–16.
- [17] Dubey, A. et al. 2017. Analyzing gender pay gap in freelancing marketplace. *SIGMIS-CPR 2017 - Proceedings of the 2017 ACM SIGMIS Conference on Computers and People Research*. (2017), 13–19. DOI:<https://doi.org/10.1145/3084381.3084402>.
- [18] Fairwork 2020. *The Gig Economy and Covid-19: Fairwork Report on Platform Policies*.
- [19] Foong, E. et al. 2018. Women (still) ask for less: Gender differences in hourly rate in an online labor marketplace. *Proceedings of the ACM on Human-Computer Interaction*. 2, CSCW (2018). DOI:<https://doi.org/10.1145/3274322>.

- [20] Fox, S.E. et al. 2020. Worker-Centered Design: Expanding HCI Methods for Supporting Labor. *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems* (New York, NY, USA, Apr. 2020), 1–8.
- [21] Franzke, shatki aline et al. 2020. *Internet Research: Ethical Guidelines 3.0*.
- [22] Glöss, M. et al. 2016. Designing for Labour. *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (New York, NY, USA, May 2016), 1632–1643.
- [23] Gold, M. and Mustafa, M. 2013. “Work always wins”: Client colonisation, time management and the anxieties of connected freelancers. *New Technology, Work and Employment*. 28, 3 (2013), 197–211. DOI:<https://doi.org/10.1111/ntwe.12017>.
- [24] Graham, M. and Anwar, M.A. 2019. The global gig economy: Towards a planetary labour market? *First Monday*. 24, 4 (2019). DOI:<https://doi.org/10.5210/fm.v24i4.9913>.
- [25] Gray, B. et al. 2020. *Made to work: mobilising contemporary worklives*. Routledge Taylor & Francis Group.
- [26] Gray, C.M. et al. 2020. What Kind of Work Do “Asshole Designers” Create? Describing Properties of Ethical Concern on Reddit. *Proceedings of the 2020 ACM Designing Interactive Systems Conference* (New York, NY, USA, Jul. 2020), 61–73.
- [27] Gray, M.L. and Suri, S. 2019. *Ghost Work: How to Stop Silicon Valley from Building a New Global Underclass*. Houghton Mifflin Harcourt.
- [28] Hannák, A. et al. 2017. Bias in Online freelance marketplaces: Evidence from TaskRabbit and Fiverr. *Proceedings of the ACM Conference on Computer Supported Cooperative Work, CSCW*. (2017), 1914–1933. DOI:<https://doi.org/10.1145/2998181.2998327>.
- [29] Hesmondhalgh, D. and Baker, S. 2010. “A very complicated version of freedom”: Conditions and experiences of creative labour in three cultural industries. *Poetics*. 38, 1 (2010), 4–20. DOI:<https://doi.org/10.1016/j.poetic.2009.10.001>.
- [30] Irani, L.C. and Silberman, M.S. 2013. Turkopticon: Interrupting worker invisibility in Amazon Mechanical Turk. *Conference on Human Factors in Computing Systems - Proceedings*. (2013), 611–620. DOI:<https://doi.org/10.1145/2470654.2470742>.
- [31] Jarrahi, M.H. et al. 2020. Platformic Management, Boundary Resources for Gig Work, and Worker Autonomy. *Computer Supported Cooperative Work (CSCW)*. 29, 1–2 (Apr. 2020), 153–189. DOI:<https://doi.org/10.1007/s10606-019-09368-7>.
- [32] Jarrahi, M.H. and Sutherland, W. 2019. Algorithmic Management and Algorithmic Competencies: Understanding and Appropriating Algorithms in Gig Work. *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. 11420 LNCS, December (2019), 578–589. DOI:https://doi.org/10.1007/978-3-030-15742-5_55.
- [33] Kasera, J. et al. 2016. Sociality, Tempo & Flow: Learning from Namibian Ride-sharing. *Proceedings of the First African Conference on Human Computer Interaction - AfriCHI'16*. (2016).
- [34] Kässä, O. and Lehdonvirta, V. 2018. Online labour index: Measuring the online gig economy for policy and research. *Technological Forecasting and Social Change*. 137, 1934 (Dec. 2018), 241–248. DOI:<https://doi.org/10.1016/j.techfore.2018.07.056>.
- [35] Kinder, E. et al. 2019. Gig Platforms, Tensions, Alliances and Ecosystems. *Proceedings of the ACM on Human-Computer Interaction*. 3, CSCW (Nov. 2019), 1–26. DOI:<https://doi.org/10.1145/3359314>.

- [36] Knittel, M.L. and Wash, R. 2019. How “true bitcoiners” work on reddit to maintain bitcoin. *Conference on Human Factors in Computing Systems - Proceedings*. (2019), 1–6. DOI:<https://doi.org/10.1145/3290607.3312969>.
- [37] Kuhn, K.M. and Maleki, A. 2017. Micro-entrepreneurs, dependent contractors, and instasfers: Understanding online labor platform workforces. *Academy of Management Perspectives*. 31, 3 (2017), 183–200. DOI:<https://doi.org/10.5465/amp.2015.0111>.
- [38] Kumar, N. et al. 2018. Uber in Bangladesh: The Tangled Web of Mobility and Justice. *Proceedings of the ACM on Human-Computer Interaction*. 2, CSCW (Nov. 2018), 1–21. DOI:<https://doi.org/10.1145/3274367>.
- [39] Lampinen, A. et al. 2018. Power struggles in the digital economy: Platforms, workers, and markets. *Proceedings of the ACM Conference on Computer Supported Cooperative Work, CSCW*. (2018), 417–423. DOI:<https://doi.org/10.1145/3272973.3273004>.
- [40] Lascau, L. et al. 2019. Monotasking or multitasking: Designing for crowdworkers’ preferences. *Conference on Human Factors in Computing Systems - Proceedings* (2019).
- [41] Lazar, A. et al. 2019. Parting the Red Sea: Sociotechnical Systems and Lived Experiences of Menopause. *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems - CHI '19* (New York, New York, USA, May 2019), 1–16.
- [42] Lee, M.K. et al. 2015. Working with machines: The impact of algorithmic and data-driven management on human workers. *Conference on Human Factors in Computing Systems - Proceedings*. 2015–April, (2015), 1603–1612. DOI:<https://doi.org/10.1145/2702123.2702548>.
- [43] Lustig, C. et al. 2020. Stuck in the middle with you: The Transaction Costs of Corporate Employees Hiring Freelancers. *Proceedings of the ACM on Human-Computer Interaction*. 4, CSCW1 (2020), 1–28. DOI:<https://doi.org/10.1145/3392842>.
- [44] Margaryan, A. 2019. Workplace learning in crowdwork: Comparing microworkers’ and online freelancers’ practices. *Journal of Workplace Learning*. 31, 4 (2019), 250–273. DOI:<https://doi.org/10.1108/JWL-10-2018-0126>.
- [45] Martin, D. et al. 2014. Being a turker. *Proceedings of the ACM Conference on Computer Supported Cooperative Work, CSCW*. (2014), 224–235. DOI:<https://doi.org/10.1145/2531602.2531663>.
- [46] Martin, D. et al. 2016. Turking in a Global Labour Market. *Computer Supported Cooperative Work: CSCW: An International Journal*. 25, 1 (2016), 39–77. DOI:<https://doi.org/10.1007/s10606-015-9241-6>.
- [47] Massey, B.L. and Elmore, C.J. 2011. Happier working for themselves?: Job satisfaction and women freelance journalists. *Journalism Practice*. 5, 6 (2011), 672–686. DOI:<https://doi.org/10.1080/17512786.2011.579780>.
- [48] Möhlmann, M. and Zalmanson, L. 2017. Hands on the Wheel: Navigating Algorithmic Management and Uber Drivers’ Autonomy. *ICIS 2017: Transforming Society with Digital Innovation* (Seoul, South Korea, 2017).
- [49] Nardi, B.A. et al. 2002. NetWORKers and their Activity in Intensional Networks. *Computer Supported Cooperative Work (CSCW)*. 11, 1–2 (Mar. 2002), 205–242. DOI:<https://doi.org/10.1023/A:1015241914483>.
- [50] Nemkova, E. et al. 2019. In search of meaningful work on digital freelancing platforms: the case of design professionals. *New Technology, Work and Employment*. 34, 3 (2019), 226–243. DOI:<https://doi.org/10.1111/ntwe.12148>.
- [51] NVivo 12: <https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/about/nvivo>.
- [52] Pongratz, H.J. 2018. Of crowds and talents: discursive constructions of global online labour. *New Technology, Work and Employment*. 33, 1 (2018), 58–73. DOI:<https://doi.org/10.1111/ntwe.12104>.

- [53] Pushshift Reddit API Documentation: 2019. <https://github.com/pushshift/api>. Accessed: 2020-02-10.
- [54] Ratings in the Gig Economy Are a Mess. Here's How to Fix Them.: 2017. .
- [55] Razi, A. et al. 2020. Let's Talk about Sext: How Adolescents Seek Support and Advice about Their Online Sexual Experiences. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. (2020), 1–13.
- [56] Reddit, Inc.: <https://www.redditinc.com>. Accessed: 2019-11-15.
- [57] Reddit API: <https://www.reddit.com/dev/api>. Accessed: 2019-11-15.
- [58] Reddit Privacy Policy: 2018. <https://www.redditinc.com/policies/privacy-policy>. Accessed: 2019-11-20.
- [59] Rosenblat, A. and Stark, L. 2016. Algorithmic labor and information asymmetries: A case study of Uber's drivers. *International Journal of Communication*. 10, (2016), 3758–3784. DOI:<https://doi.org/10.2139/ssrn.2686227>.
- [60] Sadler, K. et al. 2006. Balancing work, life and other concerns: A study of mobile technology use by Australian freelancers. *ACM International Conference Proceeding Series*. 189, October 2006 (2006), 413–416. DOI:<https://doi.org/10.1145/1182475.1182525>.
- [61] Sadler, K. et al. 2006. "It's always there, it's always on": Australian freelancer's management of availability using mobile technologies. *ACM International Conference Proceeding Series*. 159, (2006), 49–52. DOI:<https://doi.org/10.1145/1152215.1152226>.
- [62] Shevchuk, A. et al. 2019. The Autonomy Paradox: How Night Work Undermines Subjective Well-Being of Internet-Based Freelancers. *ILR Review*. 72, 1 (2019), 75–100. DOI:<https://doi.org/10.1177/0019793918767114>.
- [63] Smedley, R.M. and Coulson, N.S. 2018. A practical guide to analysing online support forums. *Qualitative Research in Psychology*. 00, 00 (2018), 1–28. DOI:<https://doi.org/10.1080/14780887.2018.1475532>.
- [64] Stefano, V. de 2016. *The rise of the "just-in-time workforce": On-demand work, crowdwork and labour protection in the "gig economy."*
- [65] Sutherland, W. et al. 2019. Work Precarity and Gig Literacies in Online Freelancing. *Work, Employment and Society*. October (2019). DOI:<https://doi.org/10.1177/0950017019886511>.
- [66] Sutherland, W. and Jarrahi, M.H. 2018. The sharing economy and digital platforms: A review and research agenda. *International Journal of Information Management*. 43, February (2018), 328–341. DOI:<https://doi.org/10.1016/j.ijinfomgt.2018.07.004>.
- [67] The Coronavirus Pandemic Is Driving Huge Growth In Remote Freelance Work: 2020. <https://www.forbes.com/sites/jonyounger/2020/03/29/this-pandemic-is-driving-huge-growth-in-remote-freelance-work/#453bb9ac7747>. Accessed: 2020-08-18.
- [68] Ticona, J. et al. 2018. *Beyond Disruption How Tech Shapes Labor Across Domestic Work & Ridehailing*.
- [69] Waters, F. and Woodcock, J. 2017. Far From Seamless: a Workers' Inquiry at Deliveroo. *Viewpoint Magazine*.
- [70] White, K. 2015. Freelancing – Are you ready to go solo? *Medical Writing*. 24, 3 (2015), 140–144. DOI:<https://doi.org/10.1179/2047480615z.000000000309>.
- [71] Williams, A.C. et al. 2019. The Perpetual Work Life of Crowdworkers: How Tooling Practices Increase Fragmentation in Crowdwork. *Proc. ACM Hum.-Comput. Interact.* 3, November (2019).

DOI:<https://doi.org/10.1145/3359126>.

- [72] Wood, A.J. et al. 2019. Good Gig, Bad Gig: Autonomy and Algorithmic Control in the Global Gig Economy. *Work, Employment and Society*. 33, 1 (2019), 56–75. DOI:<https://doi.org/10.1177/0950017018785616>.
- [73] Wood, A.J. et al. 2018. Workers of the Internet unite? Online freelancer organisation among remote gig economy workers in six Asian and African countries. *New Technology, Work and Employment*. 33, 2 (2018), 95–112. DOI:<https://doi.org/10.1111/ntwe.12112>.
- [74] Woodcock, J. and Graham, M. 2020. *The Gig Economy: A Critical Introduction*. Polity Press.
- [75] Zimmerman, J. et al. 2014. Workers as a Service The End of Employers? *International Association of Societies of Design Research*. April 2016 (2014), 1–12.