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# Design Opportunities for Freelancing Platforms: Online Freelancers' Views on a Worker-Centred Design Fiction

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Freelancing platforms, such as Upwork and Fiverr, have become a viable source of work for millions of freelancers worldwide. However, these gig economy systems are not typically designed in ways that centre workers' preferences and wellbeing. In this paper, we describe the development and evaluation of 'Freelance Grow,' a design fiction portraying a freelancing platform that prioritises freelancers' professional development and peer support. The design fiction was informed by a systematic literature assessment, using recommendations from twenty-six sources for improving online freelancers' experiences. We then used the design fiction in focus groups with 23 online freelancers to investigate their views on the ideas suggested in our design fiction. Based upon a thematic analysis of the focus group transcripts, we present three opportunities and considerations for designing systems that further enable freelancers' work autonomy, entrepreneurial development, and peer support. Ultimately, we contribute an expanded understanding of design approaches to support online freelancers in the gig economy.

CCS Concepts: • **Human-centered computing** → **Empirical studies in HCI**; **Empirical studies in collaborative and social computing**.

Additional Key Words and Phrases: Gig Economy, Online Freelancing Platforms, Upwork, Design Fiction, Worker-Centered Design

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## 1 INTRODUCTION

Freelancing platforms, such as Upwork and Fiverr, have transformed how freelance work is done internationally by enabling an online labour market of knowledge-based services (e.g., programming, design, writing). Freelancing platforms are part of a wider ecosystem of companies that profit from the digital mediation of professional services between independent workers and customers – a work model usually regarded as the 'gig economy' [86]. Upwork, one of the largest platforms in terms of scale and revenue, released a report showing that in the USA alone 59 million people freelanced in 2020 [28]. The Oxford Internet Institute has shown that the exchange of online freelancing services has nearly tripled since 2016 and has significantly increased during the COVID-19 pandemic [46, 64]. Indeed, millions of people worldwide see freelancing platforms as a viable source of remote work that promises flexibility and independence.

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An increasing body of research has focused on ways that these platforms problematise freelance work. Freelancing platforms offload managerial control and oversight to algorithms, resulting in worker precarity [44]. For example, freelancers’ access to reliable work is mediated via unaccountable and unpredictable rating systems [84], client-freelancer relationships are heavily policed to prevent disintermediation [47], and freelancers’ accounts can be deactivated at the platform owner’s discretion [3]. To mitigate these precarious conditions, freelancers often shoulder added (unpaid) work to understand platform algorithms and self-manage strategies that allow them to secure work [11, 73, 85]. This previous research indicates that the apparent flexibility and independence that platforms promise is a far cry from the precarious realities that freelancers experience when working on these systems.

Most prior research in this area has focused on investigating workers’ challenges and providing recommendations rather than exploring design possibilities to improve online freelancers’ working conditions and experiences. In this paper, we set out to address this gap by using *design fiction*. This approach is used to envisage future technologies and spark critical reflection among potential users [8, 56, 60]. Design fiction is particularly well-suited for eliciting discussion of the societal impacts of potential future technology development [26, 52], but has yet to be used in the context of online freelance work. As such, we developed ‘Freelance Grow<sup>1</sup>’, a design fiction that portrays a platform that puts freelancer development and support at the heart of its designs. Freelance Grow’s speculative features are based on recommendations from a total of 26 sources, including 15 research papers from Human-Computer Interaction (HCI) and Computer-Supported Cooperative Work (CSCW), 8 papers from disciplines beyond HCI (e.g., management and sociology), and 3 reports from existing tools or initiatives to support gig economy workers (e.g., UK-based initiative ‘Fair Work’ [29]).

We conducted five online focus groups with a total of 23 freelancers. In discussing our design fiction with freelancers, we aimed: (1) to understand how freelancers perceived the design fiction, particularly any benefits that our speculative designs could create for freelancers; and (2) to identify areas of concern that could create new challenges or even hinder (rather than support) the work experience. Our findings are that freelancers perceive benefits in the elements of the design fiction that enable greater control over freelancing careers, support development of entrepreneurial skills, and amplify meaningful professional networks. On the flipside, participants had concerns regarding the elements of the design fiction that would further reduce their work autonomy, impose managerial values, and jeopardise their individual success. This paper makes two contributions:

- An original design fiction portraying a worker-centred vision of online freelancing platforms that is grounded on research-based recommendations.
- An extended empirical understanding of online freelancers’ preferences for work autonomy, entrepreneurial development, and peer support. Based on these findings, we discuss three design opportunities and concerns for developing future interventions and platform features.

## 2 RELATED WORK

### 2.1 Online Freelancing Platforms: Opportunities and Challenges

Online freelancing platforms, such as Upwork and Fiverr, have disrupted how knowledge-based freelancing is done. Freelancing platforms enable an international labour marketplace where work is no longer bounded to a particular location, but rather geographically distributed and mediated through technology [37]. Freelancing platforms mediate

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<sup>1</sup>The interactive design fiction is available at [freelancetech.design](https://freelancetech.design)

various types of knowledge-based services, such as computer programming, design, marketing, and creative writing [46].

*2.1.1 The opportunities of online freelancing platforms.* Freelancing platforms enable an alternative and ostensibly flexible source of work. Pursuing an online freelancing career is greatly driven by the desire to break away from traditional work settings with rigid schedules and bureaucratic practices [38, 55, 62]. Particularly, people with caring responsibilities, chronic health conditions, disability, and even socially marginalised groups have found in online freelancing a viable career alternative, enabling work under their own terms [17, 38, 39]. Jarrahi et al. [45] characterise freelancing platforms as allowing for flexibility, for example freelancers can set their own rates, choose their working hours, and choose the types of work they wish to pursue. Online freelancers have also capitalised on freelancing platforms to leverage career and entrepreneurial development. Through a longitudinal study, Blaising et al. [11] found that online freelancers use platforms to explore new career opportunities or transition into new domain areas, for example, a graphic designer might transition into website design by being exposed to the diversity of project opportunities through the platform marketplace. Platforms can also be a convenient entrepreneurial resource by providing a dedicated space to find clients, build an online brand, and even provide supplementary income [3]. We agree that freelancing platforms present opportunities, but also note it is freelancers rather than platforms that are carving the career and entrepreneurial opportunities that prior work mentions. Platforms serve as a useful resource for freelancers, but more work needs to be done on how platforms themselves can leverage these benefits and better support freelancers' career aspirations.

*2.1.2 The challenges of online freelancing platforms.* A controversial feature of online platforms is how they enforce managerial control and oversight through algorithms, creating challenges for freelancers. Examples of this 'platformic management' [45] include evaluating freelancers' performance through ranking systems (e.g., reflecting aggregated client reviews) [61], constraining client-freelancing relationships to the platform environment [47], and even monitoring work processes (e.g., quantifying keystrokes and active time on the platform) [69]. Researchers have examined the challenges resulting from platformic management, for instance, working long, odd hours to earn decent wages [84, 85], racial and gender disparities in price setting and algorithmic evaluations [35, 41, 61], and asymmetric power relationships with clients [4]. Platformic management introduces new challenges for work autonomy because while freelancer may have apparent control over some elements of their work (e.g., workplace and projects), platforms' features ultimately dictate freelancers' success on the platform [44].

Online freelancing involves a great deal of self-management resulting in wellbeing challenges. Online freelancers are responsible for a wide range of work activities beyond delivering projects, for example, sourcing new clients, upgrading their skills, and managing their finances. This added work can lead to porous work-life boundaries [65] and create significant overhead [6, 11]. Particularly when using freelancing platforms, online freelancers can spend long periods of time making sense of platforms' algorithms and developing competencies to have a successful profile [44]. Much of this hustle happens in isolation, with little guidance, and patching together advice from multiple sources, such as online forums, blogs, and individual networks [9, 10]. Indeed, online freelancing requires exceptional self-management skills, which are often developed with little support and at the expense of one's non-work time.

## 2.2 Approaches in HCI to Support Gig Economy Workers

Prior research in HCI has explored how gig economy workers might improve their working conditions and experiences. Notable examples have been developed in the context of 'crowdwork' (i.e., distributed workers conducting short,

human-intelligence tasks like image-labelling through platforms such as Amazon Mechanical Turk (AMT)). Irani & Silberman [43]’s Turkopticon system is perhaps one of the most iconic interventions, which enables crowdworkers to review and expose AMT’s clients, fostering connections among workers and bring forth fair tasks. Another example is Savage et al. [70]’s framework to support novice crowdworkers leverage strategies and tools to increase their wages. In the ride-sharing context, Zhang et al. [88] conducted participatory design sessions with drivers to re-imagine algorithmic management features and to propose design interventions that addressed the competing interests of platforms, clients, and fellow drivers. These examples illustrate how HCI researchers have developed targeted interventions to address the precarities caused by gig economy platform design. Importantly, these examples also show that direct interventions, developed with workers outside platform environments can have great positive impact.

Interventions to support online freelancers has primarily focused on three specific areas: skill development, feedback gathering, and earnings increasement. Suzuki et al. [74] developed a ‘micro-internship’ system to connect novice freelancers with experienced peers who provided regular feedback on their initial Upwork tasks, resulting in a boost of confidence and higher profit. Salehi & Bernstein [68] developed a system that lowered the barriers for hiring online freelancers by embedding their services in web tutorials, showing improvements in freelancers’ hire rates. Foong et al. [34] designed a crowd feedback system for freelancers to access quick and reliable feedback on their portfolio to enhance their impression management. While these research approaches have been successful in implementing targeted interventions to support freelancers, much less is known about systemic platform interventions through re-imagining their features. We set out to address this gap by further understanding the problem space and attempt to point directions for future research and design interventions.

### 2.3 Knowledge and Skill Development through Social Practice

Historically, several configurations of practitioners have emerged to support professional development through the active participation in social communities. For example, in medieval Europe and the Middle East, guilds represented groups of workers with different levels of mastery that came together to hone their skills, share their craft, and develop a reputation [66]. Fast-forward to contemporary organisations, workers also form (both formal and informal) communities to develop skills, share knowledge, and solve problems [77]. However, with the fragmentation of work through gig economy platforms [1] and the globally distributed nature of online freelancing [37], freelancers are increasingly lacking such social development chances. There is an opportunity to explore alternative platform features that may amplify freelancers’ development through social practice.

*2.3.1 Communities of practice.* In their influential book, Lave & Wenger [51] posit that learning occurs in social settings through the process of being an active participant in communities of practice. Wenger [78] defines communities of practice as groups of people that learn how to develop their shared interests and passions by interacting regularly. Three main features constitute communities of practice [77]. Firstly, members of the community develop a unique domain of shared passions and interests that distinguishes them from other people (even when such domain is not relevant outside of the community). Secondly, members engage in joint activities and discussions that support the development of their domain. These frequent interactions create solid relationships that in turn enable them to learn from each other. Thirdly (and perhaps most importantly), members are practitioners. They develop a shared repertoire of resources, such as tools, stories, experiences, and even language, that are then put into practice, for instance to solve problems in their domain. By understanding the constituencies of communities of practice, it is possible to envision new platform features that may support freelancers develop their practice.

Communities of practice are well-suited for initiating newcomers into a practice. Lave & Wenger [51] first studied the apprenticeship model of learning, highlighting the value of newcomers performing ‘peripheral’ participation among the community to eventually move into full participation. Because knowledge is embodied by the community, the active engagement with its members and resources enables and supports learning for newcomers [51]. Moreover, because shared knowledge is in constant flux, newcomers have access to updated resources [79]. As such, communities of practice “preserve the tacit aspects of knowledge that formal systems cannot capture” ([77] p.6) enabling a powerful learning resource to meet information-seeking and socialisation needs that challenge people transitioning to online freelancing [9, 10].

## 2.4 Design Fiction: An Approach to Explore Future Technology Development

Design fiction has become a popular approach in HCI to visualise and engage with potential technologies that might emerge in the (often near) future. Design fiction has been widely adopted by researchers and designers to prototype technology artefacts embedded in fictional ‘story worlds’ [21, 27]. Design fiction can be represented in a wide variety of formats and media, for example, literary narrations [71], printed cards [76], advertisements [67], and even fully-fledged tangible artefacts [20, 63]. These creative formats enable a wide audience to imagine potential technology use and discuss their implications and consequences [13, 19, 71]. In other cases, design fiction can stimulate conversation about preferable future use of technology [27, 48]. In essence, while still an elusive term [60], we see design fiction as drawing from design techniques to imagine how present ideas could manifest in the future [56].

As such, design fiction has been successful in exploring opportunities and pitfalls for technology development. For example, Lawson et al. [52] investigated the effects of speculative technologies on human-animal relationships, identifying crucial areas where technology may exacerbate societal issues by using quantified devices on animal companions. Another example much closer to the interest of this paper, includes the use of fictional abstracts to explore the impact of emerging technologies on gig economy workers and its implications across various academic disciplines [7]. These two examples illustrate how we intend to harness design fiction as a method to provoke discussion and help us identify opportunities and potential issues for the design of future technology in the freelance gig economy.

## 3 METHOD

For this research, we have developed an original design fiction: ‘Freelance Grow.’ We have used this design fiction as the basis for focus group discussions with online freelancers.

### 3.1 Approach to Designing Freelance Grow – A Design Fiction to Support Online Freelancers

Freelance Grow is a fictional freelancing company whose mission is to support freelancers in advancing their career through a new platform. We created this fiction to explore a model of online freelancing where the platform is designed to amplify freelancers’ preferences and career development. We created the fiction as a marketing website intended to recruit freelancers to join the Freelance Grow platform. As is common practice in design fiction [63], we developed a narrative that extrapolates existing platforms’ branding and marketing discourse into the near future to evoke plausibility – see [Appendix I](#) for our visual artefacts.

We developed Freelance Grow in two phases: Firstly, we assessed online freelancing literature to identify opportunities to amplify aspects of platforms that freelancers value, such as access professional development. We mapped out design recommendations from prior research that aligned with this objective. Secondly, we used speculative design [27] to embody the research-based recommendations (from phase 1) in Freelance Grow’s features.

**3.1.1 Phase 1: Literature assessment.** Rather than performing an exhaustive literature analysis, this phase intended to provide research-based inspiration for our design fiction, as suggested by Schulte et al. [71]. As such, we did not select key words or determine inclusion/exclusion criteria *a priori* when surveying the literature. Instead, we framed our literature assessment by using the four directions for designing worker-centred freelancing platforms suggested in [3]: (i) transparent and constructive evaluations, (ii) professional development opportunities, (iii) reputation management, and (iv) symmetric relationships. Our objective in surveying related literature was to map existing research-based recommendations onto these four areas to inspire the speculation of new features.

We began by referring to the six papers cited in these four design directions [11, 36, 39, 47, 57, 72]. Then, we looked at this prior research references and additional papers from their authors, aiming to expand our understanding of the challenges and opportunities that freelancing platforms create for workers. Also, we considered literature that presented worker-centred interventions to support gig economy workers in similar fields (e.g., crowdwork). Finally, the first author drew from his knowledge of initiatives and tools supporting online workers, such as the Fairwork’s cloudwork ratings [29] and tools showcased at the ‘Digital Worker Inquiry’ online event [40].

The final corpus of literature that informed our design fiction comprised of a total of 26 sources, of which 15 were HCI papers (published at venues such as CHI and CSCW), 8 were papers from disciplines beyond HCI (e.g., sociology and internet geography), and 3 were existing tools or initiatives support gig economy workers (e.g., Gig CV [5]). We reference these sources in Table 1, while presenting Freelance Grow’s speculative features.

**3.1.2 Phase 2: Speculative design.** We drew from Coulton et al. [21]’s notion of design fiction as ‘world building’ to develop a story that resonated with our target participants, i.e., online freelancers, while allowing exploration of research-based recommendations. We used a digital board to sketch prototypes that embodied the literature recommendations identified in phase 1 (see Figure 1). We met regularly to discuss these sketches to ensure that each feature opened ‘an entry point to our design fiction world’ [19] and could encourage reflection and discussion among participants. We were particularly interested in how participants might interpret Freelance Grow’s speculative features and their perception towards other approaches to tackle the challenges they have experienced freelancing online. In short, this second phase involved sketching and discussing what these features might look like until we created the polished version available in Appendix I.

### 3.2 Freelance Grow’s Speculative Features

On the left side of Table 1, we present an overview of Freelance Grow’s speculative features. We have numbered each feature to reference in later sections. In Appendix I, we have also annotated our design fiction to explicitly highlight each feature. On the right side, we summarise the motivating factors, literature recommendations, and real-world examples that inspired each feature.

### 3.3 Participants and Focus Groups

To explore the concepts in the design fiction, we conducted five online focus groups with a total of 23 online freelancers (see Table 2). The first author recruited participants through social media and freelancing subforums. Interested participants filled in an online form where they granted informed consent to participate in the study, shared their demographic information, and provided their availability for the focus group. We accommodated participants into five focus groups and conducted the sessions through Zoom.

Table 1. Overview of Freelance Grow’s Speculative Features

Speculative Feature	Motivation and Inspiration
<p>(1) <b>Apprenticeship Programme</b> This feature supports newcomers to access paid projects and resources to ease into the platform environment. The Apprenticeship Programme may be skipped for on-line freelancers with an established reputation on a different platform.</p>	<p>A prime appeal of online freelancing platforms is to explore career opportunities, entrepreneurship, and develop new skills [9–11]. However, in their current form, platforms rarely support the transition into this emerging form of work, leading to heightened uncertainty, emotional, and financial strain [65].</p> <p>Blaising et al. [11] suggest that “future platform re-design and tool development might assist freelancers to identify pathways, gain necessary skills and mentorship, secure opportunities (e.g., paid apprenticeship with other online freelancers) (ibid)” (p.24). We speculated that an apprenticeship programme for professionals transitioning into online freelancing could be useful to ease into the platform environment.</p>
<p>(2) <b>Super Peer Mentorship</b> This feature connects freelancers with experienced peers on the platform to support career and entrepreneurial development. Freelancers who sign up as mentors pay less platform commissions and have a badge to display on their profile.</p>	<p>Online freelancers must shoulder forms of ‘self-directed’ training by piecing together multiple forms of informal mentorship, such as accessing advice from online forums [9, 10].</p> <p>Previous research has suggested that mentorship and networks of socialisation can be valuable forms of support in navigating online freelancing platforms and develop domain-specific skills [10, 74]. We speculated that platforms could facilitate these mentorship connections.</p>
<p>(3) <b>Progression Level System</b> This feature enables freelancers to compete for jobs only with freelancers at their level of expertise. It attempts to mitigate market oversaturation and flatten the playing field. Each level has defined boundaries in terms of rate setting and expertise.</p>	<p>Online freelancing platforms have an oversupply of labour, resulting in highly competitive markets. This high competition leads to challenges securing recurrent work and financial uncertainty [4, 11, 73, 84].</p> <p>Previous research has called for platform interventions to mitigate this oversupply of workers and ensure reliable job availability [29]. Foong &amp; Gerber [32] hint to such potential interventions by platforms defining set rates to minimise wage disparities. We speculated a defined progression system could create less competition.</p>
<p>(4) <b>Double-Blind Evaluation</b> This feature enables freelancers to be evaluated both from clients and experienced peers. Thus, balancing the evaluation power dynamics and increasing the ratings’ quality.</p>	<p>Platforms usually rate freelancers through client-based evaluations, putting them in an unbalanced power dynamic [3, 44, 84, 85]. Kotturi et al. [48] suggest that these ratings become inflated over time whereby negative feedback outweighs positive, reducing their reliability.</p> <p>We drew inspiration from the concept of ‘Crowd Guilds’ [80], a peer evaluation system for crowd-workers in microtask platforms to provide double-blind evaluations of their work. We speculated that double-blind peer reviews could mitigate power imbalances and increase the quality of evaluations.</p>
<p>(5) <b>Portable Reputation</b> This feature enables freelancers to both ‘import’ and ‘export’ their reputation to showcase in other channels or platforms. This Portable Reputation displays competencies and skills rather than a score to facilitate transferability to other off-platform environments.</p>	<p>Existing platform reputation systems, e.g. ratings and reviews, constrain freelancers to specific platform environments, making it challenging to demonstrate their expertise off-platform (or even when signing up to another platform) [11, 62].</p> <p>Previous research has called for tools and partnerships that support workers in effectively communicating and demonstrating their online freelancing reputation (e.g. skills and competencies) across and beyond freelancing platforms (ibid) [3, 11, 12]. We drew inspiration from ‘Gig CV’ [5], an initiative in the Netherlands helping gig workers transfer their reputation to different platforms. We speculated that platforms could have features to support freelancers translate their previous experience to the platform environment and enable access to their reputation.</p>
<p>(6) <b>AI Buddy: Features for Entrepreneurial Development and Wellbeing</b> This feature enables freelancers to access a dashboard with relevant, automated, insights to support entrepreneurial development and wellbeing. Examples of insights include receiving pricing strategies, impression management feedback, and guarding work time.</p>	<p>Gig work typically lacks organisational structures to support information-seeking and entrepreneurial development needs of workers [11, 12, 81].</p> <p>Previous research has called for platforms to intervene in aspects of entrepreneurial development, such as “nudging workers with below-average rates to raise their rates through value-based pricing (ibid)” [32] and introducing training opportunities for freelancers to adapt to changes in market and client demands [11]. We drew inspiration from AI-driven tools, such as Microsoft Viva [59, 82], used in corporate settings to support knowledge workers access insights from their work and harness organisational knowledge. We speculated a similar use of AI could help freelancers meet their information-seeking and entrepreneurial development needs.</p>
<p>(7) <b>AI Buddy: Features for Client-Freelancer Matching</b> This feature enables clients to structure their projects and suggest a fair price. The feature also attempts to help freelancers ease the work search by automatically matching with clients, based on their project needs.</p>	<p>Platforms put the onus on clients to determine projects and budgets. However, clients do not necessarily know how to articulate their needs and calculate fair wages [57]. This issue leads to transactional costs for workers who spend a substantial amount of time submitting proposals and may end up underpaid for their services [3].</p> <p>Lustig et al. [57] suggest that platform interventions to support clients scope their projects and match them with a manageable pool of freelancers could mitigate these transactional costs. Hence, we built on the ‘AI Buddy’ narrative from the previous feature to speculate with a client-freelancer matchmaking tool that scoped clients’ needs.</p>
<p>(8) <b>Optional Benefits</b> This feature enables freelancers to sign up for various optional benefits to mitigate precarious situations. Examples of these benefits included 14 days of paid time off, reimbursement for work expenses, and access to health insurance.</p>	<p>Considering recent debates about location-based platforms granting gig workers’ rights and benefits (e.g., sick leave and health insurance) [2, 83], we wanted to probe reactions to this discourse for online freelancing platforms.</p> <p>We speculated that Freelance Grow could grant optional benefits to mitigate the entrepreneurial precarities identified in [3].</p>



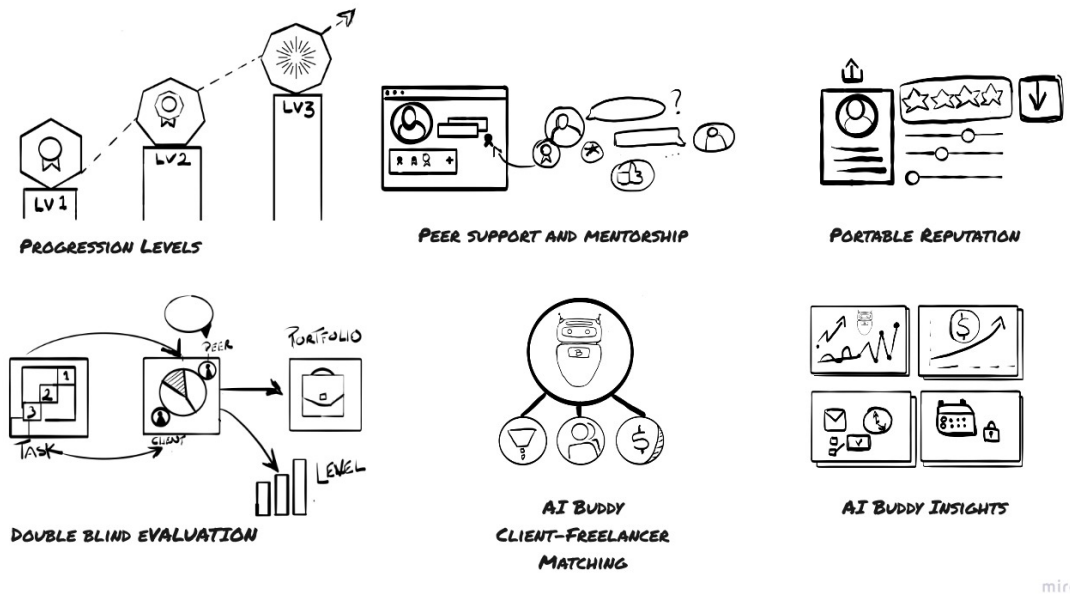


Fig. 1. Low-fidelity sketches of Freelance Grow’s speculative features. See [Appendix I](#) for our high-fidelity design fiction.

Participants’ ages ranged between 18-38 years old. Nine participants self-identified as female and 14 as male. 17 participants resided in the UK, three in the USA, one in Canada, one in Kenya, and one in Turkey. Over half of our participants used more than one platform (65.21%), of which Fiverr and Upwork were used the most (60.86%), followed by Freelancer.com (34.78%), and task-specific platforms, such as Studybay, the least (26.08%). Participants had varied domains of expertise, such as writing, design, software development, proofreading, editing, data analysis, data entry, transcription, and software testing. Most of our participants (86.95%) had over one year of experience freelancing online, with 56.52% of participants reporting more than three years freelancing; only 13.04% had freelanced between 4-12 months. Finally, 68.86% of participants reported they had used platforms as clients citing various reasons, such as to improve their personal brand (e.g., create a logo for their personal website), re-outsourcing some of their tasks, or simply to learn more about how platforms work from the client side.

**3.3.1 Introducing Freelance Grow and Focus Group Structure.** Participants received a link to our design fiction several days before attending the online focus group. We encourage participants to get familiar with the concepts presented in the fiction and take notes about things that caught their attention so we could discuss them during the session. As a strategy to mitigate deception [20], we clearly informed participants that these were fictional, ‘potential platform features’ that we wanted to discuss with them, and we had no intention in developing.

We began each focus group with a round of introductions. Then, participants had 10 minutes to go through the design fiction individually since getting familiar with the concept was encouraged but not mandatory. We followed to discuss initial reactions to the fiction, asking questions such as “what surprised you from Freelance Grow?” “What did you find interesting?” “What did you find concerning?” The rest of the focus group followed a semi-structured format, whereby the first author followed up on participants’ comments. Example questions at this stage included “how

Table 2. Participant Information

Participant ID & Focus Group <sup>a</sup>	Gender	Country	Years Freelancing	Experience as a Client	Platform(s) Used	Area of Expertise
1.1	F	UK	1-2	Yes	Jovoto	Design, Writing
2.1	F	UK	3-4	No	Upwork	Editing, Proofreading
3.1	F	UK	3-4	Yes	Fiverr	Data entry, Design
4.1	M	UK	1-2	Yes	Fiverr, Upwork	Design, Editing, Writing
5.1	M	UK	3-4	Yes	Fiverr, Upwork	Design
6.2	F	UK	>1	Yes	Fiverr, Upwork	Programming, Writing
7.2	F	UK	4+	Yes	Essay Pro, Quality Writers, Studybay	Design, Writing
8.2	M	UK	3-4	No	Fiverr, Freelancer, Upwork	Data analysis, Writing
9.2	M	UK	4+	Yes	Fiverr, Freelancer, Upwork	Data analysis, Writing
10.2	F	UK	4+	Yes	24 Writers, Essaypro, Upwork	Design, Writing
11.3	F	Turkey	4+	No	Upwork	Design, Research
12.3	M	UK	1-2	Yes	Freelancer	Writing
13.3	M	UK	3-4	No	Fiverr	Writing
14.3	F	UK	1-2	No	Freelancer, Upwork	Data entry, Writing
15.3	M	UK	1-2	No	Fiverr, Freelancer, Upwork	Transcription, Writing
16.3	M	UK	3-4	No	Fiverr, Freelancer	Data entry
17.4	F	USA	>1	Yes	Upwork	Data analysis
18.4	M	USA	4+	Yes	Fiverr, Jovoto, Upwork	Software development
19.4	M	USA	4+	Yes	Fiverr, Jovoto, Upwork	Design, Software development
20.4	M	Canada	>1	No	Fiverr, Freelancer	Software testing
21.5	M	UK	1-2	Yes	Fiverr, Upwork	Design
22.5	M	Kenya	1-2	No	Edusson, Fiverr, Verbit	Transcription, Writing
23.5	M	UK	3-4	Yes	Freelancer	Writing

<sup>a</sup>The first number represent the participant ID, followed by the focus group number. For example, when referring to participant with ID 1 in focus group 1, we append them with a dot: P1.1.

do you imagine such feature could impact your freelance work?” “What elements of Freelance Grow, would you like other freelancing platforms to adopt?” The session concluded by participants expressing their final reflections about our design fiction. After the session, each participant received a £30 Amazon Voucher to compensate their time. Each focus group lasted about two hours.

### 3.4 Data Collection and Analysis

We audio-recorded and transcribed the focus groups for qualitative, thematic analysis [14]. The first author went through the recordings and transcriptions twice to gain familiarity with the dataset, noting down regular reflexive entries in a research journal, as suggested in Braun & Clarke [15]. The first author coded all focus groups deductively, guided by our research aims (i.e., participants’ perceptions, concerns, and benefits related to the fiction). During this phase the first and second author met regularly to discuss the codes and interesting aspects emerging from the data. Once all the data were coded, we sorted our codes and example quotes in a digital board to identify patterns in the dataset and construct candidate themes. After various iterations, we generated three themes which we present below in the findings section.

## 4 FINDINGS

We present findings relating to the three themes we constructed in the qualitative analysis. Since some speculative features sparked divisions and debate, and to stay true to these nuances, we have chosen to structure our findings in terms of ‘benefits’ and ‘concerns.’ We present viewed benefits and concerns on (i) platform support getting work, (ii) entrepreneurial development, and (iii) peer cooperation. We reference the design fiction’s features by capitalising them and prepending each feature’s number in brackets (as numbered in Table 1), for example, (1) *Apprenticeship Programme*.

### 4.1 Freelancers’ Views on Platform Support Getting Work

This theme captures our participants’ views towards various elements of the fiction aimed at supporting freelancers to get work.

*4.1.1 Perceived benefits: supporting newcomers.* The challenges of starting out on a platform were discussed extensively in our focus groups. For example, it was perceived that newcomers lacked much needed support to navigate the platform environment and marketplace dynamics: *"you're thrown into the deep end of the pool and they [platforms] expect you to swim immediately and no one is looking out for you it's kind of really hard for newbies"* (P22.5). As such, the (1) *Apprenticeship Programme* was viewed positively as a feature that could ease newcomers into the platform environment: *"other websites don't offer such kind of things like, if you are a beginner, there is not an option where you can learn and here [in the design fiction] you can learn with some paid projects so I think it's a good initiative"* (P4.1). The paid aspect of this feature was particularly appealing because a common strategy newcomers adopt to get work is significantly undercharging for their services [85].

Participants felt that current platforms’ designs assume newcomers have no prior professional experience. For example, platforms usually require newcomers to complete several jobs before assigning them a reputation, making it challenging to get work: *"I didn't even try to enter any other platform other than Upwork because it's just too much almost impossible to start from zero, I think"* (P11.3). Participants felt that the (5) *Portable Reputation* feature would be beneficial to lower the barriers for newcomers and to access the marketplace: *"the possibility of carrying your portfolio from other platforms and being able to showcase your CV to other people that automatically gives you a good rating which definitely helps you in acquiring contracts from the other freelancing platforms."* (P19.4). Perhaps more importantly, participants saw the need for platforms to validate freelancers off-platform expertise when joining. For instance, P17.4 imagined that platforms could ‘translate’ her corporate expertise into a form of initial rating that validates her professionalism, knowledge, and reliability to deliver work: *"I think your non-freelancing work can somehow translate into like a beginning rating. Like say you have 10 years of experience working in the industry and now you've gone freelance and you've just signed up for a site like the site looks like you're new, but you have, you know, 10 years of real experience behind you."* Managing one’s reputation sparked interest and optimism with our participants as an avenue to support their opportunities getting work on- and off-platform.

However, other participants remained sceptical about the plausibility of reputation portability as this speculative feature goes against current platforms’ core business goals. While it may be very appealing for freelancers to get clients from multiple sources, platforms’ profit depends on the mediation of such transactions [16, 45, 47, 49], making such a feature unrealistic: *"I would really like [to transfer my portfolio] but I think the platform wouldn't like it ((chuckles)) because maybe not for a corporate job, but for finding other clients that are not on those platforms"* (P11.3). As platforms currently compete to attract the most transactions, there was no perceived incentive for them to facilitate transferability

between competitors: *"most of these platforms are in competition with each other [...] So, if you are kind of looking for a way to like transfer your profile from one platform to another I think most of them [platforms] would want to like uphold your reputation of your existing customers."* (P21.5). Indeed, while the (5) **Portable Reputation** feature would be beneficial to diversify one's work opportunities, it seemed too far-fetched as it would require significant partnerships among platforms.

**4.1.2 Perceived concerns: removing control over getting work.** The (7) **AI Buddy Feature for Client-Freelancer Matching** sparked significant concerns among our participants. Participants felt that this feature would reduce their autonomy over getting work because the matching criteria would sit behind opaque algorithms rather than within their control. P2.1 illustrated this point by saying that while looking for work is time-consuming, it is entirely 'within her control': *"it just said [in the fiction] 'we match clients with talent' and I wasn't sure what that meant or who controls that because yes at the moment I can spend a long time trying to look for jobs but that's at least within my control and then the client can choose me or not."* Similarly, participants expressed how being in control over the project search is a fundamental part of building client relationships and thus such process should not be offloaded to algorithms: *"I just wouldn't want it [platform] to be like 'oh, here are your choices [of freelancers] and pick one.' I think [writing proposals] is sort of a necessary thing to showcase your skills and establish a relationship with the client."* (P17.4). While project searching can be time-consuming it is yet 'necessary' to be in control of demonstrating one's competencies.

Also, this client-matching feature sparked concerns about limiting work opportunities and constraining work autonomy: *"I think that algorithm would probably limit me to a certain percentage of work out there (...) I think that most of us freelancers love just sorting out the work for ourselves."* (P19.4). Potential biases of the matching algorithm were also a matter of concern as they could hurt one's chances of landing projects: *"What if that one [client matching feature] will bring biases because it won't allow some people to do some jobs cos maybe [...] if your profile won't meet the criteria of the work you won't be able to land something good."* (P23.5). By platforms having greater control over project search, even when well-intentioned, there seemed to be a fundamental distrust in the speculative AI's capabilities, as suggested in other forms of algorithmic systems [53].

It was viewed that our speculative client-matching feature could also hurt learning and career development. For example, when discussing if platforms should filter and tailor clients' needs to match freelancers' skills, P3.1 mentioned that part of her enjoyment freelancing is finding projects that are interesting even if they are not in her immediate area of expertise as they can turn out to be rewarding. Thus, platforms filtering clients to match specific skills could stifle these learning opportunities and constrain freelancers with a wide range of skills like her: *"I'd like to see like any job that comes up cos something might come up that I'm like 'oh, that sounds really interesting that' and I'll give it a go and then I do well and I enjoy it [...] that's like learning in that you don't have to stick to one thing that you do. Like I do so many different things and I love learning so like a filter system for me isn't that necessary"* (P3.1). Indeed, participants perceived that the (7) **AI Buddy Client Matching** feature could not only constrain their autonomy over finding work, but also limit development opportunities.

## 4.2 Freelancers' Views on Entrepreneurial Development

This theme captures how participants viewed various features aimed at supporting entrepreneurial development.

**4.2.1 Perceived benefits: developing skills.** Participants viewed value in our design fiction supporting the development of different forms of entrepreneurial skills. There was a perceived benefit in using the (6) **AI Buddy Entrepreneurial Insights** to keep one's skills up to date. For instance, P14.3 viewed value in the AI Buddy potentially giving her advice

on aspects of her professional niche to gain a competitive advantage: “[I’d like to receive] insights on content creation, copywriting, editing.” Similarly, another participant suggested that platforms could even harness these trends and organise training events for freelancers to learn new skills: “It is also good if maybe like a platform can find a tutor or an instructor who is an expert in that field and then organise a webinar just for freelancers and then maybe he or she can teach new ideas and concepts” (P10.2). Also, there was a perceived opportunity for platforms to support the development of ‘soft skills’, such as managing clients, which is another element of successful business management [31]. As freelancing involves a great deal of self-management and communication with clients, these soft skills were seen as a key for growth: “maybe you’re a great communicator between your friends and family and you know you have a great network, but dealing with a client is something else I think [...] for example, you have three clients at the same time you have three projects and each of them is a different person and they treat you differently so you also have to treat them differently” (P11.3). Nonetheless, the development of entrepreneurial skills was perceived more relevant for freelancers in the early stages of their careers rather than for experienced freelancers, mirroring prior research with novice apprentices [51].

Participants viewed accessing information and resources as a benefit to align their services with current market trends. For instance, P3.1 a designer using Fiverr, mentioned the importance of knowing clients’ trends to advertise her services and seemed keen on knowing “what people are searching for, what people are buying, what people are wanting ideas on, uh, yeah what’s in at the moment.” Likewise, there was a perceived potential in harnessing the (6) AI Buddy Insights to help freelancers increase their discoverability online. For instance, learning about keywords and sentences that could boost their profile, and thus stand out for new clients: “it has to be like one of the top priorities using AI [artificial intelligence] to suggest keywords [...] for possibly profile descriptions, possibly uh profile summary, possibly things that will make the freelancer rank [higher] among search” (P21.5). There was a perceived excitement about amplifying one’s freelance business using emerging technology.

Participants viewed receiving feedback as crucial to developing one’s entrepreneurial skills. Participants mentioned the importance of accessing feedback that can help them identify areas for development: “I’d like them [clients] to like give me a detailed uh review of my work maybe there should also be a way of connecting with the reviewer uh and the clients should be like tell you where they weren’t satisfied with your work.” (P6.2). Participants called for evaluation systems that were straightforward and detailed in suggesting how to improve their skills. For example, one participant imagined a system could prompt clients to reflect and give a nuanced evaluation of their experience, considering both positive and ‘areas for improvement’: “If there was a like ‘please tell us the positives from this experience’ and then ‘like, are there any areas for improvement? Or any areas to consider’ so that they’re [clients] encouraged to think, not just think negatively, but encouraged to think about some of the positives as well” (P2.1). This view resonates with Foong et al. [33]’s recommendations on designing feedback exchanges that support nuanced sensemaking.

Likewise, our design fiction sparked a discussion around how common quantitative scales can oversimplify one’s competences. This view stemmed from evaluation systems focusing more on feedback about project specifics, rather than entrepreneurial competencies. P15.3 called for a feedback system that is granular and could allow him to improve his competencies: “I think they [freelancers] should be rated not solely under like five stars, it should be how competent they are, how fast, how professional, how communicative, how responsive, whether the customer is satisfied with the quality of work [...] so, that would give like an in-depth view of the real quality of work.” Overall, there seemed to be a perceived benefit in feedback and evaluations that enable the development of entrepreneurial competencies.

**4.2.2 Perceived concerns: technology doesn’t always know best.** Nevertheless, some participants viewed some aspects of our (6) AI Buddy: Features for Entrepreneurial Development and Wellbeing as evoking a sense of superiority. Participants

were concerned that the AI suggestions might impose managerial values into their work processes, clashing with their preferences for autonomy. For example, when discussing the possibility that platforms could mitigate overwork by suggesting time off, P2.1 responded “((sarcastic tone)) *It’s my right to make myself miserable with how much I work ((chuckle)).*” Likewise, this feature was viewed as ‘annoying’ in that one is aware of their own work time and thus the feature would be distracting rather than a supportive: “*I feel like that [AI buddy feature] would just be super annoying, you know, if it were like ‘you’ve had six hours of meetings this week do you want me to block your calendar?’ like no ((emphasis)) don’t, you know, don’t bother me with that.*” (P17.4). Nonetheless, a few other participants were more positive about having suggestions about their wellbeing and acknowledged that to run a successful freelance business it is crucial to look after oneself: “*To me, it’s a very welcome idea for you to suggest [wellbeing insights] and keep me from breaking down because the moment you break down, you can’t work at all.*” (P21.5).

Another concern was that some AI suggestions, such as suggesting pricing strategies, could have substantial limitations. Participants felt that the technology would not consider all the nuanced factors that go into self-managing their workload and thus the system making adequate suggestions seemed unrealistic: “*As a freelancer I personally know what my price is based on my considerations, the tools that I use, time frame, and all that, and I don’t think that the AI would probably get to consider all those things*” (P19.4). By the system automatically suggesting pricing strategies, there was a concern towards the accuracy behind the algorithm, resembling other research on AI fairness in gig economy platforms [30]. Hence, participants called for other complementary approaches to providing entrepreneurial training, for example, by having dedicated staff that can complement AI recommendations: “*Once a freelancer puts in the price, automatically it [algorithm] should send feedback to the freelancer and give him a detailed advice but it will also become better if [...] a department within the website [platform] that specialises in helping people create their profiles to best attract clients or attract customers*” (P22.5). There was a general perceived scepticism towards the usefulness and the granularity of AI in supporting one’s freelance business development, thus requiring a human-in-the-loop to complement this process.

Our intention was to probe reactions to freelancing platforms potentially providing more organisational support structures, such as (8) **Optional Benefits**, to mitigate some precarities (e.g., by providing paid time off) and cover entrepreneurial costs (e.g., by reimbursing business expenses). Participants felt that these benefits crossed the line and were seen too similar to an employer: “*like the paid time off and those sort of more employer focused things [...] Um, it just seemed really weird because as a freelancer that’s on you, that’s the whole point of being a freelancer is you set your rate to include, you know, paid time off, and to cover your, your expenses.*” (P17.4). This view resonates with freelancing being a highly independent profession, leading to concerns that platform features ought not to cross the line when it comes to managing work [3].

### 4.3 Freelancers’ Views on Peer Cooperation

This final theme captures how participants viewed features of our design fiction that related to different aspects of cooperation, such as mentorship and peer evaluations.

**4.3.1 Perceived benefits: Mentorship as enabling professional development.** Mentorship through the (2) **Super Peer** feature was perceived as having potential to enable professional development at the different stages of one’s freelance career. From the mentee’s perspective, having an experienced freelancer to talk to was seen as a great advantage to navigate the platform environment and the essentials of online freelancing: “*I know most of these platforms are not kind of like user friendly at the beginning for new users [...] so you’re trying to like give newbies a way of like a mentorship program that will kind of guide them through the step to step process*” (P21.5). Also, freelancers at early stages of their

careers could benefit from an experienced peer providing insight on areas for development: *“when someone [mentor] has like that expertise they’re more likely to see mistakes in your work and maybe correct you so that you [...] learn from them”* (P6.2). Newcomers and early-career freelancers were seen as getting the most immediate benefits from accessing mentorship, illustrating the values of communities of practice for introducing newcomers into a new domain [51, 77, 79], in this case the domain of online freelancing.

Also, participants felt mentorship could have various benefits for more experienced freelancers. For example, showcasing a (2) **Super Peer** badge on one’s profile was viewed as a potential ‘added advantage’ to attract new clients: *“if there is a small badge or something like it shows I’m good enough that I can even mentor someone [...] it’s an added advantage cos you are taking a time out to help someone else”* (P22.5). Mentorship could even lead to new sources of professional networks and work opportunities. P17.4, for example, explained that in her ‘close knit’ industry connections are crucial for repeated work, thus mentoring could amplify such connections: *“if you’re mentoring them [peers], they may run across projects that they don’t feel comfortable they can take on themselves and so they refer you. Or maybe you run into a big project and you need help so you have someone you can go to bring on to help.”* At a more personal level, mentorship was seen as being potentially rewarding, especially for those freelancers who have mentored peers in other professional settings as was P11.3’s case: *“I take great satisfaction when people thank me [...] when I give them mentorship.”* These more ‘intangible’ side of mentorships related to having the opportunity to share knowledge and enable professional fulfilment, mirroring relationships in other professional development settings such as with do-it-yourself makers [50, 58].

A more optimistic perspective regarded mentorship as potentially beneficial for all stakeholders on the online freelancing platform (i.e., freelancers, clients, and platform owners). P17.4 perceived mentoring as the key to ‘raising the whole bar’ of the platform by having competent novice freelancers that were reliable for clients with lower budgets. In turn, more experienced freelancers could have higher chances to land contracts that better matched their rates: *“I think it [mentorship] raises a whole bar and then the clients are happier because they have more professional freelancers [...] if somebody wants to go with a cheaper freelancer they’re not getting crap service, they’re getting someone decent but you know still within their budget and that’s fine because you know then we [experienced freelancers] can go with the higher budget clients.”* Indeed, this view shows how mentorship could have a positive ripple effect not just for freelancers at different career stages, but also for clients and platform stakeholders.

**4.3.2 Perceived concerns: the tension between cooperation and individual success.** At the same time, there was a perceived tension between supporting other peers and having individual success on platform environments, a form of ‘adversarial collaboration’ [18]. Freelancing was perceived as a profession underpinned by being completely independent, i.e., not relying on anyone to get and complete work. P20.4, for instance, described freelancing as a profession where *“you work by yourself you rely on yourself you don’t rely on others.”* Also aligned with working independently, there was a sentiment of individualism intertwined with carving opportunities for personal success: *“the best thing is just to be independent, get good reviews from your clients, and you grow”* (P13.3). These views reflect the importance of individual goals in a competitive marketplace, as documented other work settings [22].

Some participants viewed individual success as directly clashing with the notion of peer support. For example, some participants were sceptical about cooperation because getting work as a freelancer on platforms is at expense of other freelancers not getting that contract. Thus, the idea of cooperating with other freelancers seemed to go against one’s individual success: *“it [design fiction] assumes all freelancers are cooperative and nice and part of a big community whereas I think a lot of them have more of a ‘hold the ladder up behind them’ sort of ‘get there first’ mentality”* (P2.1). For some

participants competition was viewed as ‘necessary’ to enable opportunities for quality talent to stand out from the rest of the market: *“It [competition] is necessary because every competitive market gives chances for good expertise to come forth, you know, it brings out quality compared to an environment where there is less competition.”* (P16.3). Market competition was a point of tension across our focus groups and perceived as clashing with the idea of being cooperative and supportive with others.

Some participants even perceived cooperation as counterintuitive and hindering one’s abilities to secure work. For example, P2.1 perceived mentoring other peers as taking up valuable time that she could use to get paid work: *“it sounds like being a Super Peer here would take up a lot of time and certainly a lot of goodwill because that’s time that you’re not earning, and time that you’re not looking for jobs.”* Also, there was a concern towards mentoring the very people who might be competing to get the same types of clients: *“if you mentor someone then you’re basically mentoring your competition because that’s who will be competing with you for these contracts.”* (P20.4). This concern was also voiced in terms of using the (4) **Double-Blind Evaluation** feature because peer reviewers might gain an advantage from looking at one’s work, learn from others’ processes, and becoming more attractive for clients: *“When you send someone your work to evaluate it [...] that person will learn how you’re different that gives them a chance of getting better and probably even overtaking you and thus probably taking some of the contracts that you get as a freelancer”* (P19.4). These concerns reflect that some people perceive freelancing as an individualistic, competitive profession where cooperation could harm one’s opportunities to get work.

## 5 DISCUSSION

In this paper, we have explored online freelancers’ views on ‘Freelance Grow,’ a design fiction that embodies gig economy literature recommendations to improve workers’ experiences with online gig economy platforms. We have been interested in how online freelancers viewed Freelance Grow, capturing their perceived concerns and benefits. Based on these findings, we discuss three opportunities and considerations for designing interventions to support online freelancers. Echoing Baumer and colleagues [8], we see our design fiction as an empirical method to engage with and understand freelancers’ experiences. As such, the focus of our discussion becomes less on the speculative features (including their feasibility and sustainability) and more on the reactions they provoked. Hence, in this section, we seek to further illuminate the problem space and identify pathways forward for research and practice based on our findings.

### 5.1 Designing for Greater Autonomy

Feature (5) **Portable Reputation** was seen as enabling greater autonomy over one’s freelance work on- and off-platform. This feature was viewed as an exciting opportunity to gain control over one’s experience and portfolio. Extending prior research [3, 11, 45], our findings suggest that reputation systems that constrain reviews and ratings to single platform environments were seen as barriers that hamper freelancers’ career advancement. An opportunity for future research is developing tools for freelancers to demonstrate their professional experience (whether online freelancing or traditional employment settings) beyond platform environments, such as their personal website, other professional platforms like LinkedIn, or even other freelancing platforms. Previous research has designed tools to support low-resource job seekers capture their professional competencies and skills [24, 25], a similar approach could be taken for online freelancers to have control over their reputation. However, our participants recognised that facilitating reputation transferability jeopardises platforms’ revenue, thus compromising the feasibility of such tools. We recommend future research should build on existing examples of successful partnerships across multiple platforms supporting gig workers access their data and reputation, such as ‘GigCV’ [5].



Features (3) *Progression Level*, (6-7) *AI Buddy*, and (8) *Optional Benefits* had elements that were seen as potentially constraining one's autonomy. Participants criticised our speculations mainly because they seemed to adopt management-like capabilities. Even when well intentioned, participants felt that it was not the role of the platform to determine their work opportunities to a smaller pool of clients or provide benefits akin to traditional employment. Participants especially criticised speculative features putting forward the use of AI, e.g., to match freelancers with clients or suggest fair rates. Future technology development should carefully consider ways to increase trust in AI-driven features and be mindful of the managerial dynamics that they impose on workers. Emerging research has suggested participatory methods for stakeholders, including workers, to democratically develop algorithmic features [54, 88] to distribute the power dynamics more evenly. We recommend testing these approaches in the online freelancing context.

## 5.2 Supporting the Development of Entrepreneurial Skills

Feature (1) *Apprenticeship Programme* was seen as a potential source of entrepreneurial development. Participants recognised that different stages of their freelance career require different types of support. This feature was seen as beneficial for novices to ease into the platform and accessing paid opportunities without the pressure to immediately compete with experienced freelancers for work. There is great potential for platforms to leverage social learning theories (e.g., communities of practice [77]) to support newcomers in developing their skills. We expand previous research [11, 12], by illustrating the need for on-boarding features that can support novices transition into online freelancing, while allowing more experienced freelancers to showcase their previous experience within the platform environment.

Participants called for approaches to support their entrepreneurial development that we overlooked in our design fiction. Participants associated entrepreneurial development with keeping domain specific skills updated, but most importantly, learning the essentials of freelance practice (e.g., dealing with clients, managing different projects, and sensemaking of feedback). Huang et al. [42] suggest that platforms are in a strong position to encourage freelancers to develop relevant skills. Our findings confirm and expand this notion by showing that platforms can further promote the development of entrepreneurial skills. Future technology development should explore pathways for freelancers to access reliable and meaningful feedback on their freelance practice. These opportunities could build on existing interventions, e.g., portfolio feedback [34], to encompass other entrepreneurial qualities.

Feature (7) *AI Buddy: Entrepreneurial Insights* was viewed as prescriptive and potentially failing to fully meet participants' entrepreneurial needs. Participants were concerned that AI could accurately consider the various, often dynamic, elements that go into their entrepreneurial self-development, such as time invested in freelancing (e.g., part-time vs fulltime [32]), types of work they do, and workload. Future technology development should carefully consider the complexities and overhead [6, 11] that go into self-development to make adequate suggestions. Extending previous research on impression management and pricing strategies [32, 35, 61], participants called for complementary approaches to support these strategies, such as discussing them with platform staff or peer mentors. We suggest that supporting entrepreneurial training should come from multiple angles and not merely from platforms making automated recommendations.

## 5.3 Fostering Meaningful Peer Support

Feature (2) *Super Peer Mentorship* was seen as having potential to support freelancers' professional development. Participants viewed mentorship as having benefits for both mentees and mentors. From the mentee's perspective, participants felt that having an experienced peer could help navigate both platform environments and advancing their freelance practice by getting advice from experienced peers. From the mentor's perspective, participants viewed

an opportunity to demonstrate mentorship as an added competence that could attract potential clients and amplify their professional networks to get work, confirming prior work [10, 11]. There is an opportunity for researchers and practitioners to create mentorship programmes that foster career connections and go beyond support with specific tasks or skills (as was the case in previous research [74]). Future research should explore the configuration of supportive communities where learning emerges as a form of social practice [51]. An emerging understanding in mentorship strategies could support the creation of such peer support interventions [75].

Features (2) *Super Peer Mentorship* and (4) *Double-Blind Evaluations* sparked tensions between peer cooperation and individual success. Participants voiced concerns that mentoring and evaluating peers might hamper their success on the platform, for example, by peers providing unfair reviews to damage their competition. These findings mirror those discussed in prior research on peer assessments at scale [48] and fragmented peer support communities [87]. Participants also questioned the added (potentially unpaid) labour that supporting peers could create. These tensions resemble the notions of “adversarial collaboration” [18] and “social dilemmas” [23], whereby individuals with shared competitive goals are faced with incentives to cooperate to enhance the collective. These findings illuminate challenges for further exploration in the online freelancing space.

Future research should consider strategies to mitigate damaging competitive dynamics. For example, future peer assessment interventions might leverage disclosing necessary information (e.g., how reviews are aggregated) and consider peer anonymity to mitigate damaging behaviour [48, 80]. Also, we suggest that managing individual success and community cooperation in competitive marketplaces requires to further understand both individuals [22, 23] and markets’ objectives [49]. There is an opportunity to investigate the factors spurring competition and those that incentivise collaboration among online freelancers.

#### 5.4 Limitations

Although our study has provided valuable insights for future work to address prevalent challenges for online freelancers, we acknowledge the limitations of our approach. Firstly, *Freelance Grow* embodies our interpretations of other researchers’ design recommendations. While we strived to ground our fiction on existing challenges, it is likely that our fiction missed other prevalent issues as well as other important recommendations from the literature. Secondly, our sample had an overrepresentation of UK participants, and more generally from the Global North. We screened for participants who had used platforms as clients and with several years of experience, making our sample skewed to these savvier freelancers. Future work should engage with freelancers from the Global South to gain richer perspectives on approaches to support online freelancers, given that workers from these countries might experience heightened precarity [4]. Finally, while we hope elements of our speculative features can inspire future technology development, further empirical research is needed to understand the implications of designing tools to support online freelancers. We suggest researchers work closely with all stakeholders (i.e., freelancers, clients, and platform leadership) to develop a deeper understanding of how new tools may impact online freelancers’ experiences.

## 6 CONCLUSION

As flexible, remote work has become increasingly popular, online freelancing platforms have emerged a source of work for millions of people internationally. Prior research has started to examine the challenges freelancing platforms create for the future of work. Yet, the elements that freelancers appreciate from platforms has been understudied for developing future design interventions. To address this gap, we have created *Freelance Grow*, a design fiction that embodies gig economy literature recommendations to visualise a freelancing platform that supports freelancer

development. We have engaged with 23 online freelancers across five online focus groups to explore the concepts presented in Freelance Grow. Our qualitative findings suggest that freelancers appreciated Freelance Grow's features aimed at supporting their status as independent workers, fostering career opportunities, and developing entrepreneurial skills. Conversely, our findings highlight how some recommendations from previous work, even when applied to a fictional scenario, can be seen as a threat to freelancers' autonomy and individual success. Based on these findings, we propose three opportunities and considerations for designing interventions to improve the online freelancing work experience. Importantly, we further illuminate avenues proposed by prior literature and provide insights on what freelancers view from such recommendations.

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## A DESIGN FICTION

### A.1 The Freelance Grow Website

Please scroll down to see our annotated screenshots. Visit [freelancetech.design](https://freelancetech.design) to engage with the Freelance Grow website.

FW
Getting Started | How we work | Features | Fees & Benefits

# Freelance Grow


## A freelancing platform made by freelancers.

Our mission is to help you advance your freelance career. We are a cooperative – all freelancers have a say on how we operate.

### What differentiates us from other platforms?

We put people first. At Freelance Grow, we value your work and believe that excellent peer support leads to outstanding results. Owned and run by freelancers, we attract and develop talent with training, benefits, and transparency. Together, we're constructing the future of freelance work.

Rather than competing with other freelancers for jobs, our platform seeks to establish peer support connections to help each other grow. We match clients with talent that meets their project needs so that freelancers don't spend endless hours writing proposals and bidding for projects. Finally, our members can access unique benefits, such as paid time off and reimbursements for their work equipment. Scroll down to learn how to get started!



**We are for you if you are:**

- Tired of applying to hundreds of jobs with no response.
- Working on platforms take too much commission for your work and tell you virtually nothing about how they operate behind the scenes.
- Sick of investing too much time developing a reputation that is constrained by a specific platform.
- Anxious about your reputation being ruined by an incompetent client.

Fig. 2. Freelance Grow's landing page aimed at marketing its benefits to online freelancers.

01/05

## Getting Started

**Apprenticeship Programme** (1) Apprenticeship Programme, Table 1.

New freelancers join a paid apprenticeship period, consisting of completing three paid projects. This programme helps us assess your expertise. Also, it enables you to get familiar with how we operate and help you decide if we're the right fit for you. Upon completing the apprenticeship programme, you'll become a member and be assigned to a level (see "How we work" below for more details about our levels).

**Bring your reputation from other platforms** (5) Portable Reputation, Table 1.

Suppose you have developed a reputation with another freelancing platform. In that case, you may be eligible to skip the apprenticeship programme and become a member right away. You'll have the option to share your other profiles during the sign-up process.





**Aisha Lo**

Super Peer ♥

Aisha's Super Peer Badges

📄

🗓️

🗨️

I'm struggling with this client's content.



Talk me through the problem, we'll work it out!

**Super Peer Support** (2) Super Peer Mentorship, Table 1.

Peer support is what makes our platform stand out from the competition. Once you become a member, we match you with a Super Peer – a freelancer in your field with experience on our platform. Super Peers can support you in accessing resources, giving you feedback on your portfolio, talking through problems, and many other things! We encourage you to set up regular catch-ups with your Super Peer.

As you gain experience on our platform, you'll have the option to become a Super Peer for new members joining us. Being a Super Peer benefits you in adding to your professional competencies, accessing training sessions, and getting unique badges to display on your profile. Further, **Super Peers pay lower fees** in every transaction as active contributors to the community!

Fig. 3. The on-boarding page describing features to get support when signing up to the platform, including the Apprenticeship Programme and Super Peer Support Mentorship.





Fig. 4. Freelance Grow's Progression Level System.

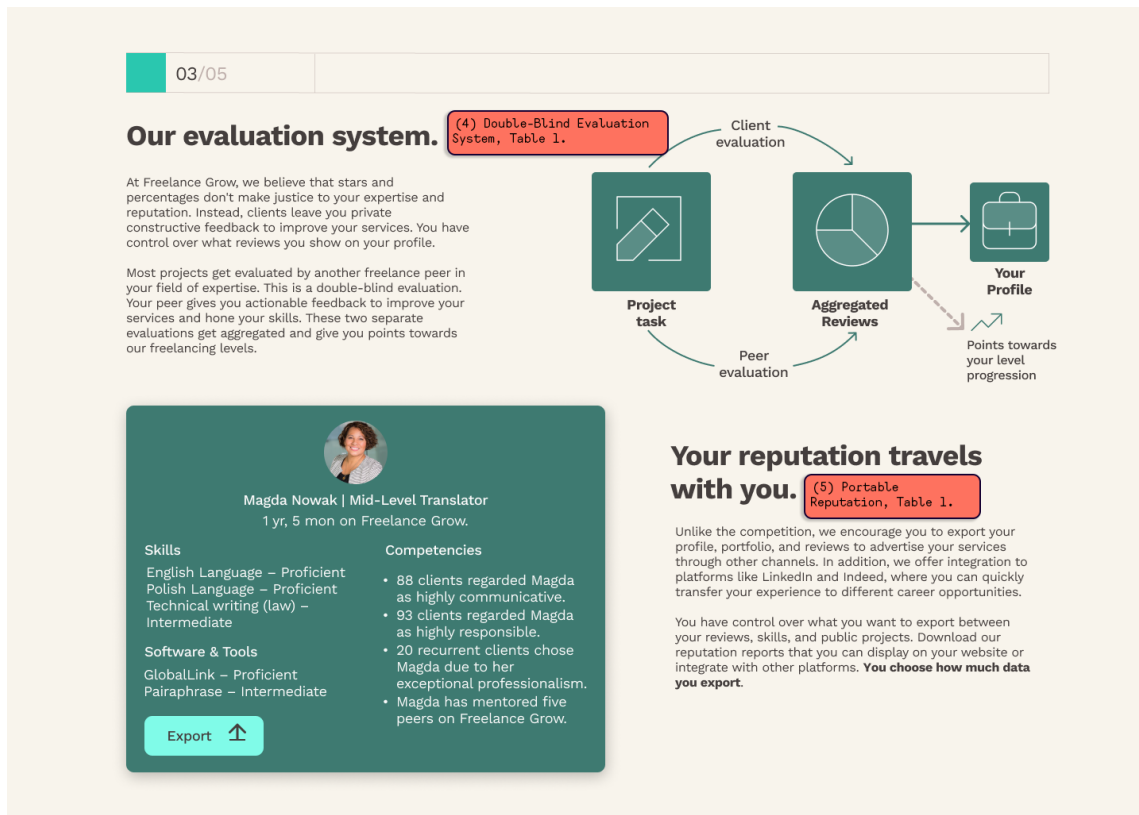


Fig. 5. Double-Blind Evaluation and Portable Reputation Features.

04/05


(6) AI Buddy: Features for Entrepreneurial Development and Wellbeing, Table 1.

## Unique AI-powered features.


Meet your freelancing **buddy**. This powerful AI partner constantly analyses our platform and helps you identify the freelancing services that are trending. Also, it nudges you to adjust your prices according to these market trends.

Your buddy also makes suggestions to your profile, such as sentence wording, trending elements to feature in your portfolio, and what keywords clients are looking for that match your skills.


Buddy integrates with your favourite project management and productivity tools, helping you and your clients track projects, share files, and get things done. In addition, buddy can nudge your clients to respond to your messages and take action.



**Determine Project Needs**



**Suggest Top Freelancers**



**Suggest Fair Price**

### Buddy Insights

Dashboard
Messages
Resources

**Trending words for translators:** Marketing, Wellbeing, Self-Help

These keywords seem to match your previous projects. We suggest you add them to your profile.

[Edit profile](#)

**Your hourly rate could be higher.**

On average, freelancers at your level are charging 15% more than you. We suggest you increase your rates.

[Pricing settings](#)

**Rob, from Acme Tech, hasn't updated the project scope. Do you want me to send a reminder?**

[Yes](#)
[No](#)
[Ask me later](#)

**You've had six hours of meetings this week. Do you want me to block your calendar for the rest of the week?**

[Yes](#)
[No](#)
[Ask me later](#)

### Buddy for clients

(7) AI Buddy: Features for Client-Freelancer Matching, Table 1.

Buddy works with clients to scope their project needs, short-list freelancers, and generate pricing insights. First, we use state of the art algorithms to help clients define their project needs. Then, our systems automatically suggest a small pool of freelancers that match the client's requirements. Buddy estimates a fair pay rate for the project, which is open for negotiation between the freelancer and the client.

Buddy uses metrics such as project timeline, expertise level, and hours required to match clients with potential freelancers.

Fig. 6. AI Buddy Insights for entrepreneurial development and wellbeing. AI Buddy for client-freelancer pre-screening and matching.

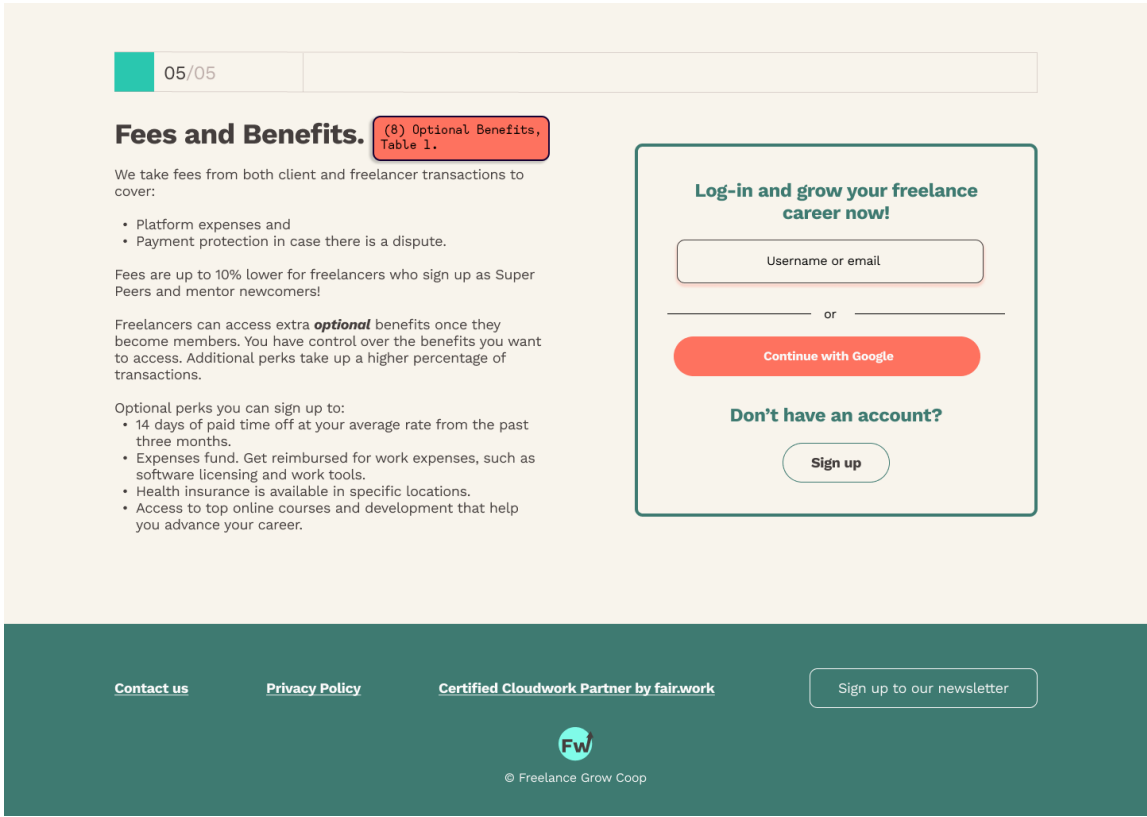


Fig. 7. A list of Freelance Grow’s fees and optional benefits.