

Platform-mediated Markets, Online Freelance Workers and Deconstructed Identities

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ABSTRACT

We advance the concept of deconstructed identity to highlight how online workers' identities are being reshaped, diminished, and controlled by the rise of gig-work and digital labor platforms. Doing this extends current concepts of online identity construction, performance, and management by focusing on freelancers using online labor platforms. We do so to advance current understanding of the ways in which online workers construct their identity, while adhering to the standards imposed by online labor platforms. Findings illuminate how online freelancers' identity is framed by the structuring of their profile, ratings and client feedback, the algorithms used by the digital platform, and controlled by the terms of use. Data show that the freelancer's profile is focused on skills, reflecting the realities of competing in labor markets for work. Panelists report the centrality of client and platform ratings of their work, and the need to manage client feedback and ratings as a core part of their identity. Taken together, these findings highlight the algorithmic control which platforms enforce on freelancers online. Coupled with use policies and evolving platform designs, this control creates a form of indentured servitude. We further note the ways in which online freelancers both recognize and resist this deconstructed identity control.

CSS CONCEPTS

• Human-centered computing ~ Human computer interaction (HCI) ~ Empirical studies in HCI • Human-centered computing ~ Human computer interaction (HCI) ~ HCI theory, concepts and models

KEYWORDS

Gig economy; online identity; algorithmic control; identity management; platforms; freelance work; Upwork

1 INTRODUCTION

We advance the concept of deconstructed identity and highlight ways workers' identities are being reshaped, commodified, and controlled by the rise of project-based or gig work and digital labor platforms. To support our conceptualization, we report data from a longitudinal panel study of 50 Upwork freelancers who do various types of knowledge work, including administrative, creative, and technological projects. The panel study involves two rounds of data collection using interviews, surveys, and secondary data from a carefully developed sample of freelancers, as discussed in more detail in section 3.

The rise of digital platforms has helped to transform the ways workers find new employment opportunities and carry out work tasks [52]. Combining extensive and sustained data collection with machine-learning algorithms, these platforms now broker work between millions of employers and workers, serving as market-making intermediaries for digital labor. Human-Computer Interaction (HCI) and Computer-Supported Cooperative Work (CSCW) scholarship showcases some of the opportunities and challenges of the gig economy and the role of digital labor platforms [12,16,24,30,38]. We also draw on relevant scholarship from labor studies, labor economics, and organization studies to guide our analyses and discussion.

More broadly, conceptualizations of identity continue to be an important concept for HCI and CSCW scholars as we seek to understand the role of design and technology in the process of developing one's self-representation. Lingel, Naaman and boyd note that "identity work provides a focal point for investigations of the role of technology in shaping the construction of the self, where a number of technological practices are deployed in everyday tasks related to identity" [44]. Research on identity has focused on faceted identities [25,28]; collective or shared identity [36,69]; and identity work among different groups [26,31–33,44]. More recently, research has also highlighted ways that identity characteristics have been increasingly scrutinized with the increase of uses of big data, machine learning and artificial intelligence systems [62].

Building from this, we focus on how platform-mediated work has impacted online workers' identity development and management to advance our current and limited understanding of platform-mediated worker identity. To do this, we focus conceptual and empirical attention to two research questions:

RQ1: What are the ways in which platform features, use policies, and underlying algorithms shape identity work online?

RQ2: What are the ways in which individuals respond to platform opportunities and constraints for identity development and management?

The decision to study freelance worker's identity stems from our ongoing research. We have learned about the commodification of worker's skills, knowledge, and perspectives. Freelancers often rely on online platforms like Upwork to gain access to work. These platforms, in turn, rely on structured worker profiles and job listings; track all platform activity; use proprietary algorithms to identify, rank and rate workers; and update features, policies and interfaces to reflect what they learn about workers and behaviors in order to maximize revenue and retain market control.

As detailed below, online labor platforms have substantial market power, allowing them to control the ways in which worker identities are constructed and used. Freelancers must agree to allow this as a condition of participating on the platform, ceding control of their identity from the structured template of their profile to the platform's construction of a digital identity based in large part on the freelancer's bidding efforts, job completion ratings, and client ratings. While there is clearly a power imbalance, our data also illuminate how freelancers respond to and resist this usurpation of their identity control, suggesting both the importance of this concept and the contested terrain of its use in online labor markets.

2 RELATED WORK

2.1 Knowledge Workers

While much of the research on labor platforms has focused on how digital work is mediated and controlled by the platform in lower-skilled gig work such as ridesharing [54], food delivery [68], and microtasking [29,30,59], relatively less attention has been paid to platform-mediated knowledge work and its workers, which is our focus.

By knowledge work we mean labor that involves a greater reliance on conceptual skills and cognitive abilities [11,57]. This form of work tends to be project-based and usually calls for some degree of creativity, adaptation, and problem-solving skills [5]. Knowledge work also relies on exchanging tacit knowledge and establishing shared meanings through extended contact among workers and customers [8]. Online freelancers are unique in that the exchange of tacit knowledge and shared meaning is mediated by the digital platforms. This means mechanisms for connecting online

freelance knowledge workers must be more complex than are mechanisms for delivery of other common gig-economy jobs that tend to be the focus of so much of contemporary gig-economy scholarship [38,41,70].

Existing studies of platform-based knowledge workers have covered a wide range of topics, including algorithmic control of work tasks [2], occupational communities [63], labor market characteristics [56], career orientations [12,46] and employability [9]. This work noted, we lack a clear understanding of how online freelance workers' identities, an important component to knowledge work, are constructed, performed and managed [45].

Traditionally, freelance work involves establishing and managing social relationships with clients [71]. So, online freelance workers undertake 'strategic relational work' with clients aimed at 'forging intimate and close relationships and of securing a favorable position in online relational infrastructures' [3]. This noted, research to date has not clearly demarcated how identity is played out on digital platforms. The work reported here builds on existing concepts of online identity construction, performance, and management by focusing on freelancers using online labor platforms. We do so to advance understanding of the ways in which workers are shaping their identity online. And, in doing this, we contribute insight about the ways in which online workers are resisting identity commodification.

2.2 Non-Standard Work Arrangements, Online Labor Markets and Labor Platforms

The rise of knowledge work and its ability to be disconnected from physical locations, combined with shifts in thinking about labor as an organizational cost rather than as an organizational asset, have helped fuel the growth of contingent and nonstandard work [39]. Powell [58] calls this "decentralized capitalism" to demarcate the ways in which work is being organized and governed. One of the catalysts of decentralized capitalism has been a change in organizations themselves. What has replaced these vertically integrated corporations are "web-page" enterprises that rely on technologies, not employees [22]. With this shift has come an increased reliance on independent contractors and companies that focus on tasks rather than jobs [23].

Unsurprisingly, the number of independent contractors, or "freelancers," has increased significantly since 2005, although estimating how many are in the labor force is difficult. One report shows that independent contractors grew from less than 7% of the workforce to almost 10% from 2005 – 2015 [43]. The "Freelancing in America 2020" study commissioned by the Freelancers Union and Upwork report [67] significantly higher numbers: about 37% of the U.S. workforce (roughly 55 million people). Whatever the exact numbers, evidence suggests there are more people doing online freelance work. And, it seems as if this form of working is likely to be a larger portion of the future workforce.

The increased reliance on project-based work, and growth in the number of contract or freelance workers, sets the stage for the new work ecosystem that relies on online platforms, brokering the employer-worker interaction. The past 10 years bear witness to the rapid expansion of digital platforms that enable employers and firms to find project-based workers more efficiently [38,54,55,70]. The global market for online labor grew approximately 50% from 2017 to 2020, with an estimated 56 million online freelancers globally [42,64]. These markets are seen as providing opportunities for both workers seeking flexible employment arrangements and for organizations to help absorb market shocks [27,30,40].

2.3 Digital Platforms as Market-Making Intermediaries

Online labor platforms are proliferating in a highly competitive, lucrative, and unruly space. To a first approximation, it is a digital free-for-all with very little regulatory oversight. Employers seek talent, workers seek jobs, and online labor platforms seek profit. This means the types and uses of data, algorithms, and the features of these platforms are the primary source of competitive advantage. No platform owner would want to give up their competitive advantage, something we must appreciate even as we want to better understand these negotiating spaces, per Allan [4].

The rise of online labor markets is premised on market mechanisms [1,21,65]. This means the work to be done - the project or gig - becomes a transaction between an employer and a worker. These platforms use the data from workers, employers and jobs to guide and structure what both market participants see. That is, these platforms provide the structure of the market. And in doing so, these platforms rely on a market-making architecture that is opaque (if not invisible) to the market players but is also fundamental to the market's operation, per Bar [7].

The market-making ability of labor platforms is made partly visible through the human-computer interactions that define these two-sided labor markets. Freelancers and employers interact through the different interfaces provided by the market-making platforms. These interfaces provide the negotiating space for freelancers and employers to come together. The exchange that is at the center of this transaction is, thus, both market and interface. The platform's features and functions serve as both the structure of the market and the negotiating space for participants. At the heart of the negotiating space is identity, and more specifically, identity that is mediated through digital platforms. As market intermediaries, digital platforms are commodifying the labor process by transforming the way freelancers and clients interact. This commodification is accomplished through the fragmentation of labor processes into tightly packaged tasks

to be distributed across the network through algorithmically enhanced arm's-length market transactions [70]. Such arm's-length transactions are shaped, controlled, and accomplished on - and by - the platform.

This conceptualization of interfaces as negotiating spaces makes clear that the algorithms behind these interfaces serve two functions. First, they are the core of the market's architecture even as they are also dynamically evolving by using the data being collected. Second, this means the interface/market continues to adjust, building on Taylor's [66] prescient insights into the roles of interfaces as the negotiating space between what the users seek and what the systems can offer. Therefore, interactions within and with the digital platform create new opportunities and challenges to online freelancers as they demarcate their identity.

2.4 Identity

Online labor platforms serve here as a living laboratory for gaining insight into the roles that individuals, platforms, and other forces play in the construction and management of workers' identities online. They also allow us to gain greater understanding of the levels and strategies for resistance to identity control on such platforms.

There is a rich and complex body of identity research, and with it many ways of understanding identity [20]. For this paper, 'identity' refers to a person's subjectively construed understanding of themselves. Identity helps to answer questions such as 'Who am I?', 'How should I act?' and 'How shall I relate to others?' [6,14]. Literature on identity is often concerned with the self-perception of being, including one's "identifications with particular categories or demarcations" such as race, gender, career, socioeconomic status [20]. However, given that identity is complex, there are ongoing debates and tensions in the literature about notions of agency, stability, coherence, positivity and authenticity within identity construction and management [14]. Here, we focus primarily on tensions of agency and control.

A central contention within identity research is the types of forces which have agency and influence in the process of identity construction. Identity work research often concentrates on individuals' agency to engage in a range of activities, including forming, maintaining, and repairing their self-identity construction [6,14,32]. Some of this work highlights that individuals typically have choice and intentionality in their identity construction [6,10]. Other scholars argue that an individual's life is 'inextricably interwoven' with their social world. So, one's identity cannot be understood outside of the nuanced conditions and processes in which an individual is embedded [18].

Forces such as organizational agents, normative discourses, and other societal, cultural, and institutional patterns can be perceived as agents in identity construction [6]. For example, drawing on the work of French philosopher Michel Foucault, post-structural scholars have examined the role and disciplinary power of employers in normalizing and controlling acceptable employee identities [6,10]. Similarly, Brown [14] argues that an organizational member's identity may be perceived as 'manufactured' or 'engineered' by organizational leaders. This sense of prescribed identities can be attributed to the power of normalizing different social and organizational practices using authority structures. Collinson [18] notes that "As a form of power that disciplines the self, normalization constructs identity and knowledge by comparing, differentiating, hierarchizing, homogenizing, and excluding."

The concepts of normalization, control, and power are central to identity scholarship. For example, scholars have sought to understand the role of power relations and mechanisms for identity construction and management in work organizations. Alvesson et al. [6] argue that "identity control can be understood as a critical element of the employment relationship" as organizations may exert control over worker's identities through managerial discourses, and processes such as induction, training and corporate education (p. 16). Yet, as forms of employment change, and platforms and algorithms emerge as forces facilitating work relationships, there is an opportunity to reflect on our understanding of the processes of identity construction, management, and resistance online.

2.5 Online Identity

Research about online identity has focused on the ways in which digital platforms have become ever more "sophisticated regarding user expression" [34]. Individuals have various ways to represent themselves online, including through profiles on social networking sites (SNSs) such as Facebook, Instagram, and Twitter, as well as on other online platforms which are facilitating an array of processes in our daily personal and work lives (e.g. LinkedIn, Pinterest, and Etsy). Drawing on philosopher Judith Butler's work on the performative aspects of identity is useful in understanding of online identities. Butler [15] argues that individuals perform their identities according to cultural demands for recognizable, unified, and coherent norms of identity. This performative identity framework allows us to think about the ways in which individuals also perform their identities when they articulate themselves online, for example through designing and maintaining various online profiles, contributing to online discussions, and engaging with other online information [20].

In addition to the cultural demands for performing identity, the online platforms themselves become an agent that can exert control in identity construction and performance. That is, one's online identity is largely influenced by and limited

by the features and affordances of platforms. These features, combined with the various platform policies, create a standardized expectation for what can be provided as part of one's identity. For example, popular sites such as Facebook require individuals to display 'authentic identities' by using their real name, phone number and other personal details. These and other standards "generate problems for certain users, especially those with non-normative or marginalized identities" [34]. For instance, online sites typically have specific options for self-identification, such as categories for self-selecting one's gender identity (i.e., male, female, non-binary), limiting the ways in which individuals can represent themselves online.

Within CSCW, scholars have stressed the importance of understanding identity work, researching identity exploration, identity architecture, and impression management online. Studies have addressed the ways in which mediums such as social media and email allow individuals to enact and reaffirm their identity [28,51]. Farnham and Churchill [28] argue that individuals find online identity management difficult (as compared to face-to-face), as users must balance identity performance and social context despite a lack of control over their audience. And, while research in CSCW and beyond have conducted extensive research on identity management, little is known about the impact of online labor market intermediaries on freelancer's identity work.

Building from existing concepts of online identity construction, performance, and management by focusing on freelancers using online labor platforms, we contribute insight about the ways in which workers are resisting these commodified identities, as workers maintain agency in their ability to construct their identities. Barros [10], for example, notes that while there is a high degree of focus on control within identity research, more attention is necessary to develop the connection of identity work with resistance processes.

3 RESEARCH DESIGN, DATA COLLECTION AND ANALYSIS

The study supporting this analysis is designed as a longitudinal panel of freelancers and combines interviews, surveys, and secondary data collection efforts. The focus is on workers using the digital platform Upwork. Upwork is the dominant platform and largest online labor market, accounting for more than 40% of all such work online [42]. The advantage of the panel study is collecting data from the same people at multiple points in time. For this study, we have collected interview and survey data during two rounds. Our first round of data collection was conducted February 2020 to April 2020, and the second round was conducted December 2020 to March 2021.

3.1 Recruitment

Using a purposeful sampling framework, this panel involves 50 freelancers, carefully assembled to provide for a representative sample of participants. The four selection criteria are: 1) responsibility for their own career, 2) having completed work (earned money) on a platform over the past year, 3) engaged in knowledge-based work organized as temporary gigs or projects, and 4) demographic characteristics such as gender and amount of experience. These criteria reflect what is known in the literature (e.g., there is gender parity in the gig economy in general even as rideshare platforms are skewed towards males) [37]. And, freelance workers span the entire range of ages [50], so age was not a selection criterion. [Table 1](#) summarizes the sample's demographics.

To encourage continuation and acknowledge we are working with people who get paid by the hour, the online freelancers were compensated \$35 for their participation for each round of data collection. We recruited and compensated the workers on the Upwork platform directly. We also stay in contact with the panel participants between rounds of data collection: sharing with them useful resources and other updates.

Table 1: Freelancer demographics

	Round 1 (Concluded April 2020)	Round 2 (Concluded March 2021)
Gender		
Female	47	28
Male	27	22
Occupation		

Administrative	32	19
Creative	28	24
Technology	12	7
Education		
Less than high school	1	1
High school graduate	1	0
Some college	6	3
Associate degree	3	2
Bachelor's degree	33	22
Post-graduate degree	30	22
Upwork Freelancing Status		
Primary source of employment	40	30
Additional source of employment	35	20

3.2 Data Collection

Primary data collection relies on a combination of surveys and semi-structured interviews. These data are complemented by extensive secondary data collection about the online platform and the larger online labor ecosystem. These secondary sources include LinkedIn profiles, Reddit threads, Facebook groups, and other sites that our participants suggest to us. The goal is to situate Upwork within the larger context of its market space in order to better understand how it adapts what is offered to employers and freelancers. The survey and interview instruments build from two other recently completed studies.

In addition, we did a careful walkthrough of the Upwork platform to understand how identity construction is crafted. We mimicked the creation and establishment of profiles and the searching and hiring process with researchers assuming the roles of clients and freelancers. Throughout the process, we kept detailed notes of the process, with a focus on identity creation including the interface's layout, options, design, textual suggestions, and breakdowns. These observations are summarized in section 4 below and provided useful insights in understanding the freelancer data.

3.3 Data Analysis

The panel study design allows for both cross-sectional and longitudinal analysis, at both a detailed and aggregated level of granularity. We rely on both grounded analysis of the data and guidance from extant literature. The grounded analysis is done by building up from the themes identified through careful comparative analysis using DeDoose (a common text analysis tool that is available online; this has allowed the research team shared access). Themes were organized hierarchically and interrogated within the context of our research questions. The questions build from what is known, allowing us to gain greater insight on how these data being collected align with patterns others are seeing.

The platform walkthrough builds from Taylor's [66] concept of interfaces as negotiating spaces. This analysis focuses on describing sets of features, choices, and arrangements. This analysis effort is the core to advancing insight into both the platform (and market) architecture [7] and the ways in which this is realized through interfaces [66].

4 THE WALKTHROUGH: UPWORK PROFILE AND STANDARDIZED FREELANCER IDENTITY

Understanding identity construction on online freelancing platforms such as Upwork begins with acknowledging the affordances that such technologies provide its users to represent themselves. Scholars have noted that identity construction on online platforms, including social networking sites, is driven by user profiles [13,19,20]. Profiles provide individuals tools for producing and articulating a coherent and unified identity. This includes basic features to perform

traditional identity categories, such as age, gender, education, as well as through inclusion of a profile image and biographical statements [20].

Similar to other online platforms, identity is mediated primarily through a person's profile. The profile is also the primary tool that clients can use to screen and decide on which freelancers to hire. As such, profiles are not only about representing one's identity, but they are also the first step to being a successful online freelancer. When freelancers set up their profile on Upwork, they are prompted to add various elements to their profile. According to Upwork¹, the freelancer has agency in whether and how they complete their profile; however, Upwork profiles are standardized and somewhat restrictive in what freelancers can include based on the platform's affordances. For example, Upwork provides a list of standardized skills that freelancers can highlight in their profile. The company also has guidance on what is appropriate to use in a profile photo and has determined specific service categories freelancers can choose to identify with.

Moreover, the platform has both requirements and metrics to determine how complete a profile is (with the goal of achieving a 100% complete profile). To achieve a complete profile, Upwork considers 10 essential elements²: (1) Title and URL, (2) Profile photo, (3) Profile overview, (4) Skills, (5) Employment history, (6) Hourly rate, (7) English proficiency, (8) Education, (9) Experience level, and (10) Service categories.

From this list, a profile photo, title, overview, employment history, and at least one skill tag is required to have a minimally "complete" profile. Doing this gets a freelancer 60% of the way toward a complete profile. To complete the remaining 40% of the profile, individuals can add from a combination of items, including: portfolio items³, employment history, education, a profile video, link accounts, list certifications and skills tests, and provide other experience items. Upwork weighs each of these elements differently and limits on how much of each element counts toward profile completeness.

Freelancers have some flexibility in what they choose to include and exclude from their profile. Nevertheless, there are penalties for not following Upwork's guidance for a complete profile and adhering to their standards. Upwork notes that "Completing your profile doesn't just give clients the info they need, it also helps Upwork match you with more relevant projects⁴." Freelancers that fail to fulfill the requirements may not be able to establish a profile at all, and those without sufficient elements for a 100% complete profile are disqualified from receiving Rising Talent and Top Rated status (each of which are coveted badges that provide freelancers various benefits, including a lower service fee and personalized customer support). Having an incomplete profile may also impact how Upwork matches freelancers to projects. As such, freelancers are incentivized to have complete profiles based on the requirements, standards, and metrics established by Upwork.

Beyond the required and optional elements, freelancers can add their availability, languages, diversity certifications, testimonials (endorsements from past clients), and other experiences that help distinguish them from others. How each of these profile elements is used by the platform's internal matching algorithm or by the clients is not easy to assess.

Upwork provides support and resources to help freelancers build and enhance their profile via regular blog posts, reports, and freelancer-driven community discussions. Some of Upwork's best practices for freelancer profiles include: Focusing on showcasing skills; selecting a profile picture that makes clients trust you; creating an introduction video; listing certifications; linking to professional and social accounts; and, tracking reputation (ratings) and responsiveness score⁵. Though multiple resources exist to support freelancers on Upwork, the ever-evolving nature of technology may make it difficult for freelancers to keep up with the changes to the platform, including, but not limited to the changing and new platform features for profiles.

5 FINDINGS

In this section, we build on our understanding about freelancer's online identity by reporting the primary themes from our analysis of interview data. Analysis revealed five findings addressing the research questions for this study: (1) clients and algorithms as forces in identity formation (RQ1); (2) identity controlled by the platform's terms (RQ1); (3) freelancers deconstructed as a bundle of skills (RQ1, RQ2); (4) identity management through ratings and feedback (RQ1, RQ2); and (5) the role of resistance tactics in identity work (RQ2). We note the role of the platform, algorithm, and clients in driving the way that individuals represent themselves and the emphasis individuals place on platform-driven metrics as they think about their online identity and their success on the Upwork platform. We also provide insights into the ways

¹ <https://support.upwork.com/hc/en-us/articles/211063188-Create-a-100-Complete-Freelancer-Profile>

² <https://support.upwork.com/hc/en-us/articles/360016252373-Build-Your-Profile-Essential-Items>

³ In our walkthrough setting up the initial profile, we were unable to add portfolio items. The platform required creating an additional profile, which it calls a specialized profile, before a worker is able to add portfolio items.

⁴ <https://support.upwork.com/hc/en-us/articles/211063208-Sample-Profiles-and-Best-Practices>

⁵ <https://support.upwork.com/hc/en-us/articles/360016144974-Enhance-Your-Profile?accordion-link=add-profilevideo>

in which Upwork and other online freelancing platforms may be influencing freelancers in ways that reduce relationship-building with clients, and promoting a fragmented sense of self for online workers.

5.1 Clients and Algorithms as Forces in Identity Formation

The first finding highlights how several forces influence online identity construction. Freelancers we spoke to make clear that their own perceptions of self are not the only determining factors when considering the development of their identities in the online labor ecosystem. We find that identity work on labor platforms such as Upwork consists of a constant negotiation between the workers, clients, and the Upwork platform to ensure a market-efficient identity. While previous identity research places individuals at the center of identity construction and management (per Alvesson, [6]), our findings suggest that there is a dynamic interplay of forces that influence identity processes. The platform and norms about what clients expect have considerable control and agency in the identity construction and management on labor platforms. Further, norms including a desire to be seen as “professional” also impact the development and maintenance of a profile.

As noted above, the profile is one of the starting points for identity development on online platforms. Upwork freelancers must develop their identity while adhering to Upwork platform features and optimizing their presentation for the accompanying client-matching algorithms. As such freelancers are keenly aware of the importance that Upwork places on freelancers’ profiles. Nearly all the participants in our study discussed the importance of having a complete, professional, and/or strategic profile. They also acknowledge the effect that their presentation has on whether they are successful in this type of work or not and employ strategies to present themselves in a way that pleases the platform and clients.

“Profile-wise, I highlight things that are necessary for the profile... when you’re submitting a profile, it’s like submitting a resume... I’m strategic in what I say in my initial opening, the picture then will tell some things, and then you kind of go from there in terms of what you want to highlight.” (Freelancer 1, Male, Administrative)

Participants view the profile as a way to make an initial connection with potential clients, and as such their online identity on Upwork is driven by a desire to represent themselves in a way that meets the expectations of potential clients. For example, participants note the importance of consistency and simplicity in one’s profile for the sake of facilitating client interactions.

“Just try and build your profile. It’s very important for clients to see also. I think a lot of them are looking for consistency, and also looking at your profile there to see how many hours you’ve worked with Upwork, and just creating that connection with your client.” (Freelancer 2, Female, Administrative)

“You want the information, but you also don’t want to overburden [clients] to the point where they lose interest.” (Freelancer 1, Male, Administrative)

In discussing their online identity, freelancers emphasized ‘professionalism’ as a critical component of how they choose to represent themselves online. For example, the profile image that freelancers choose is one of the ways that freelancers convey a professional identity. Our findings are in line with prior research about the normalization, or expectations of how individuals must represent themselves online [18].

“There’s a certain look you go for... I say, ‘Okay, what’s professional and what’s not?’ I don’t want to give someone a wrong impression, so I looked at it and said, ‘Okay, what do I look like that will actually allow me to stand out but yet not look like I’m trying too hard and not being unprofessional?’” (Freelancer 1, Male, Administrative)

In some cases, participants believe that having a high-quality professional photo is more important than having a recent, more accurate or representative image. For example, one participant notes that they are afraid of the consequences that may occur if they decide to update their profile photo. They strongly feel their photo contributes to their success on the platform.

“My picture, I will say, my picture is getting really old now... It’s a little bit out of date, but I’m like, ‘This picture looks professional. It looks like someone who gets some sleep. It looks like a young energetic person.’ I feel like my profile picture, I think it kind of helps me... Part of me is scared to put an updated picture.” (Freelancer 3, Female, Administrative)

This pressure to present as professional through their profile image was common in participant responses. The professional profile image is so important for identity formation on platforms such as Upwork, and other professional platforms online, that clients may comment on freelancers' photos to prompt them to update their photo in instances when clients believed a freelancer's image was not up to certain professional standards. This reinforces our finding that clients influence the ways that participants develop and manage their identity on Upwork.

"[The photo] is 12 years old, but it was just high quality. I had used another one and a client through Upwork wanted me to redo my LinkedIn one. He said, 'This is not a high-quality photo or high res.' I said, 'OK.' I changed it to that one. Then I changed my one on Upwork too." (Freelancer 4, Male, Administrative)

"I think I've been seeing a lot of different pictures here for a profile. Someone said, 'Make it appear somewhat professional,' and stuff like that. I tried to choose the one that looks a little bit more professional than the one that I've had there before." (Freelancer 2, Female, Administrative)

This way of understanding identity in the context of work aligns with previous research about the dominant influences of power structures, as well as social and cultural forces, that uphold a prevailing version of what 'professional' means and its embedded relation to identity and work organizations [10,35]. In thinking about one's online identity, freelancers on Upwork have to not only consider the expectations of clients, but they also must represent themselves in a way that satisfies the Upwork algorithm. The information that individuals include in their profiles drives which type of work and clients the Upwork algorithm will match a freelancer with.

"I do work on maintaining all of the work I've already put into being on Upwork and making sure that I'm represented in a way that people are going to find attractive, and also to help people who do send me invitations really understand what I offer so there are no misunderstandings or, you know, like they'll send me an invitation for something that's completely different from what I do. That doesn't happen very often anymore because I think I'm doing a pretty good job of making sure my profile is up to date and consistent with what kind of work I want to do." (Freelancer 5, Female, Creative)

"I redid my profile, edited my profile to be a little more specific of what I was looking for. As a result, I've gotten some more targeted requests." (Freelancer 6, Female, Administrative)

Maintaining a relevant profile to the best of their ability is critical. Freelancers on Upwork must achieve this self-presentation while balancing how they see themselves. Workers are engaging in constant identity work as they negotiate how to best represent themselves through the limited and standardized platform profile elements, and all while taking into consideration the expectation of potential and current clients as well as the Upwork matching algorithm to achieve the best results.

5.2 Identity Controlled by the Platform's Terms

Beyond the identity work of managing their profiles on online work platforms, freelancers face restrictions due to the platform standards, policies, and identity surveillance mechanisms. For example, Upwork employs identity surveillance mechanisms in order to ensure that freelancers are representing themselves accurately. Surveillance tools include location tracking and identity verification requests⁶, a routine identity review process that requires the freelancers to send government-issued identification for the platform to verify individuals' identity. Several Upwork freelancers with whom we spoke mentioned being required to update portions of their profiles. For example, one freelancer was prompted to verify the accuracy of the location listed on their Upwork profile.

"When I was traveling and I had my home base town in the description, and when I was working and using the tools where it tracks my time online, on screen, doing a job, they noticed that my IP address was overseas, and so they sent me an email saying, 'Hey, you said you are in Colorado but you're signing in consistently from Portugal, so what the heck?' And so, I had to talk to them and explain what was going on." (Freelancer 7, Female, Administrative)

Platform-enforced standardization means workers are beholden to the algorithm and the framework as set forth by the platform for their livelihood. One of the ways labor platforms are exerting control over worker's identity is through ranking and status imposed by features such as Top Rated, Top Rated Plus, Rising Talent, and other platform-driven badges that are used to promote certain freelancers and accomplishments. These badges are highly coveted as these

⁶<https://support.upwork.com/hc/en-us/articles/211067788-Location-Government-ID-Verification#:~:text=We%20routinely%20ask%20freelancers%20and,items%20to%20verify%20your%20identity>

distinctive markers are associated with benefits for the freelancers, such as lower platform fees, faster payments, and customized customer support. Freelancers also see the badges themselves as related to certain desirable identity traits, such as being perceived as a more competent, established, and effective freelancer. Several freelancers specifically noted how maintaining an identity of a 'reliable' worker was possible through platform ratings and badges.

"[My rating] has to stay high. Plus, it contributes to badges, which is another visual thing which makes people think this guy is reliable. 'He's got top rated badge.'" (Freelancer 8, Male, Creative)

"I'm one of the Top Rated people. I imagine that's an attraction... I like that they're trying to distinguish people more than just your general rating... But yeah, I think probably the badge stuff is, I think, the nicest addition that I've seen, that I think just to have different people distinguished more." (Freelancer 9, Male, Creative)

"Since I've been doing Upwork, I've obsessed over it... The reason why is because I know people and because I use that as a standard for myself to know that I am doing well." (Freelancer 8, Male, Creative)

Given their association to a freelancer's prestige and status, badges are relevant not only among clients' perceptions of workers, but they are also relevant to the platform that is facilitating worker-client relationships. These status demarcations among freelancers are important to help outstanding workers get more project invitations, and ultimately, more work. In our sample, the workers who had received platform badges felt that this form of platform-controlled prestige contributed to higher levels of success on the platform due to more relevant and higher amount of work they were able to secure.

"It seems to be something on a feedback loop. If you perform well, you get the badge. If you get the badge, you get more work. If you keep performing well, you get a higher rate... it's all this statistically driven stuff that I'm not an expert on it. But just like on Google, if a page is high ranked, it will show up first. Same thing ... if someone is looking for a translator, with my ranking, I would show up before other translators." (Freelancer 10, Male Administrative)

The steep value that is being placed on features like badges causes individuals to focus on these elements over other segments of their identity online. Freelancers use the badge as not only a measure of their success, but also as an influencing factor in their platform decisions. For example, the importance of badges has led some freelancers to regularly submit proposals, take on more work to maintain earning's requirements, remain active on the platform, and maintain a flawless job reputation.

"When people are searching, they are going to look for the top rated. That's just one consideration for me, when I contemplate taking some time off in the future. I'm like, 'Will it be easy to get back on the platform, or would I lose my status, or whatever?'" (Freelancer 3, Female, Administrative)

"I imagine [badges are] looked at, because if I was looking for someone, why wouldn't I want people in the echelon for that? Especially for someone like me, who's saying I'm a premier person. If I'm going to command a top price, then I need to be up there." (Freelancer 9, Male, Creative)

This focus on badges is problematic due to the lack of worker's agency in how Upwork measures such markers. The platform, rather than the freelancer, has control over what constitutes a Top Rated or Top Rated Plus freelancer. Workers are unsure about the specific formulas and calculations which determine these categories of outstanding freelancers. Furthermore, platforms like Upwork have the ability to add and remove badges, and make changes to the metrics that constitute such status demarcations. Participants provided several examples of the ways in which changes to the platform's calculations influenced their status, both negatively and positively.

"Upwork, thankfully, that was one big change I was so grateful that Upwork did, they stopped counting the ones that don't give you [a] review against you. I was about to go under 90%. I thought I earned that 100% and slowly but surely, I went all the way down. I was going to lose my Top Rated score. I was not going to be happy. Upwork changed that. I went back up to 96%." (Freelancer 4, Male, Administrative)

In addition to badges, the platform has other ways to deconstruct and control the identity of freelance workers, such as setting the terms for the ways in which a freelancer's income appears on their profile. For workers, their earnings are a means through which they represent themselves as reputable workers who provide a certain value. However, online labor platforms have agency as to how freelancers and clients see the platform earnings amount, standardizing the figure

versus showing the actual earned amount. This also highlights the complex and opaque nature of the inner workings of the Upwork platform.

"I was kind of surprised to see that I'm approaching the figure of \$15,000 that I've earned on Upwork. At the time, to be more specific, I think it was \$13-600 maybe. I was surprised to see that, because on my personal profile, it said \$10,000+ that I had earned. I don't know, maybe with Upwork, they just don't put like \$11,000, \$12,000, \$13,000, maybe it's just when you hit the \$15,000 mark is when they would put that. I just thought that if you got \$11,000 or \$12,000, they would put that up there. I kind of wish they would, actually." (Freelancer 11, Male, Creative)

5.3 Freelancers Deconstructed as a Bundle of Skills

In the process of identity construction on a transaction-driven work platform, we have also found that one major component making up an individual's online identity is their skill set. Freelancers are aware that rather than focusing on their offline identity, which may include their education, profession, and other attributes, it is more strategic to focus one's identity around specific marketable skills on labor platforms. For example, several of the Upwork freelancers mentioned that part of their strategy for their profile is to highlight their primary skills through the incorporation of keywords.

"[My profile] highlights the specific keywords that somebody would use to find me. So, if there's a WordPress plugin like WooCommerce or something, I make sure that that word is in the profile somewhere and that I highlight that in my portfolio so that people can see what kind of websites I've built with that plugin, because it's just specific enough that somebody is going to want to only hire somebody who's done it before." (Freelancer 5, Female, Creative)

"Use a few things like buzz words to help people find you. Focused is the word I would use. If you just say, 'I do it all,' you're going to get stuff that you can't do or won't do. You want to focus on things that you are strong on. Article writing in my case." (Freelancer 12, Male, Creative)

This focus on skill bundles is visible in the affordances/features of the Upwork platform. For example, a client typically can search for freelancers through a basic or advanced search, which may include keywords, service categories, English level, and languages-- all of which point to the importance of a freelancer's specific skill. On the freelancer side, Upwork features allow individuals to set up specialized Upwork profiles, tailored to a niche skill set, which further reinforces the value of representing freelancers on the platform as a bundle of skills. When freelancers have various sets of skills, they may choose to have niche profiles that fragment their identity into specific sets of their skills.

"I have a general profile and then I have a website design profile. They're basically the same. But the website design one, I think, includes a lot more keywords of specific tools I use..." (Freelancer 5, Female, Creative)

"I have one with my administrator for data entry profile, then I have one a proofreading and editing... The blurb is different, and the hourly rate is different." (Freelancer 3, Female, Administrative)

"The advice and the powers that be are all saying niche down, niche down, niche down, find something that you're good at and just write that." (Freelancer 7 Female, Administrative)

Freelancers recognize that their skill set is what helps them get hired. So, they have to do their best to highlight these skills, even at the cost of diminishing other aspects of their identity. Not all skills are valued equally, with some skills being more in-demand than others and some being more lucrative than others on work platforms.

"I do feel, and I hope it's not hubris on my part, that I have a unique set of skills that I bring to the table. I'm fluent in 3 languages. I'm really fluent in them and understanding the nuances of them. For example, with translation, balancing accuracy with idiomatic language, which is a very difficult balance, that is the name of the game. I feel these are skills that are hard to acquire and take a lot of time to develop. They should be compensated fairly. But at the end of the day, you have to work with what's out there." (Freelancer 10, Male, Administrative)

"Five years ago, everyone started getting into search engine optimization. They were obsessed with it even though no one knew how to do it, everyone claimed to know. When I caught wind that every business

owner got it in their head that I need to optimize my site for search engines in order to make money, I just went back and added 'I also do SEO' to my profile." (Freelancer 8, Male, Creative)

"This kind of takes an autodidactic attitude to be a good freelancer I think because you have to determine what skills can be helpful to me in my area of freelancing and how can I acquire them. You might be able to acquire them through a book or something like that. Or acquire them through some YouTube videos." (Freelancer 10, Male, Administrative)

5.4 Identity Management Through Ratings and Feedback

Data make clear the importance of ratings and feedback to freelancers' identity management on Upwork. Freelancers recognize that being perceived as competent and trustworthy is driven by the rating and feedback given by clients. Freelancers see ratings as strongly correlated with both compensation and their long-term success on Upwork.

"It's a lot easier for me to get clients because of my profile and my reviews and how much money I've already made off Upwork; I tend to get invited to a lot of jobs... Yet one crappy review if your client is being ridiculous can set your whole profile back, and it can affect your income." (Freelancer 7, Female, Administrative)

"One of the key things they did was that I just had a bunch of clients ghost me. I don't know what happened. I ended those contracts, but they never provided feedback. They just went away. That was factored into what Upwork calls its job success score so that negatively affected me." (Freelancer 13, Female, Creative)

For freelancers who are new on the platform, the lack of ratings puts them at a disadvantage. To boost their ratings, some resort to taking lower pay so that they can establish a history of feedback and project success. For some, ratings become the most important identifier. It becomes their identity, and they resort to groveling for ratings from clients.

"I had a client; I'll even name him. No, I won't. [Laughs] God bless him, they hired me like 12 different times. They did not give me a review once. I would ask them. I would ask them. I would ask them, and they weren't going to do it... That is the problem with smaller jobs and even some big jobs, you cannot force a client to review you. Yes. I watch that rating very close. Every day. They only update it every two weeks, but I look at it every day." (Freelancer 4, Male, Administrative)

"I have a feeling that it makes someone more willing to hire me. It seems like when clients are searching, it seems like one metric they search on. I've had someone before, like I went down from a 100% to 96%, and I had a potential client ask me about it, why it wasn't 100%. They are searching. They click the button for Top Rated, or they click the button for higher than 90% proficient or whatever." (Freelancer 3, Female, Administrative)

As a result, the platform has created a five star or nothing framework with a focus on objective metrics as identifiers. The five star or nothing framework not only centralizes the power to platform rating systems but creates a significant power imbalance between the freelancers and the clients who rate them. The power imbalances can result in losses of revenue and additional work taken on by the freelancers with the primary goal of maintaining the high ratings.

"I have had a couple of clients who, one client I love. I've worked for her for a long time. She couldn't give perfect scores. She felt like there's no such thing as perfection, so she would only give me 4.5. I'm like, 'Thank you.' [Laughs] She would give me a glowing review afterwards, later, but they [other potential clients] are looking at only the stars. I'm thinking, 'That's not helpful.'" (Freelancer 4, Male, Administrative)

"There was just one time I'm going to say this was the client's fault. I'm going to say she was crazy. I was like, 'This is not going well.' I just ended the contract without payment, because I was like I don't want her to give me a bad review. I don't want this on my profile. That was a consideration I made, although even I think just even closing the contract took the rating down. I don't know. That was one time where I was like, 'I'm going to get a bad review for this, so I'm just going to close this out without taking payment'." (Freelancer 3 Female, Administrative)

5.5 The Role of Resistance Tactics in Identity Work

Findings up to this point highlight some of the mechanisms of identity development and management through adaptation to the platform standards, terms, and norms. Our data also highlight the focus on the role of resistance in online identity work. While the Upwork platform may be influencing and regulating freelancers' online identity, individuals in our study noted various tactics to address the limitations of one's platform identity. For example, most freelancers we spoke to believed that having a 'professional' identity is important for success on Upwork. However, a few of the workers instead seek to stand out in ways that are unique on the platform.

"I guess I just want to present myself as being unique and different, out of the box, not your typical drafter or renderer, you know. I'm not going to be boring. Like having a resume on there, it's not going to be like, 'This is my da da da da da.' I want it to grab people's attention and make them curious or make them think. I guess that's my strategy." (Freelancer 15, Female, Technology)

"I did update my intro on Upwork to tell more of a story, which was something new that I finally felt comfortable doing; I just wasn't sure what I was doing with myself with that. So I talked a lot about who I am and my journey... It's more unique, just because it feels more like me." (Freelancer 9, Male, Creative)

While these freelancers use resistance to the norm of professionalism as a strategy to be unique and stand out, another participant showed more uncertainty about whether veering off the platform expectations would benefit him or not. Yet, workers may still make the choice to be different, even when there are costs related to rejecting the norms or dominant ways of representing an identity online.

"I also kind of did my own thing. I don't know if this is good or bad, but I started with a quote. I've always felt that a powerful quote is really engaging... I don't know if that's a smart move, but that is just what I have on there. Then I talk about what I believe the value is that I bring to the client. My guess is that it could probably be improved but I really wouldn't know how to improve it. I'd probably outsource that to someone younger than myself." (Freelancer 10, Male, Administrative)

In addition to implementing tactics that depart from the typical professional profile on Upwork, sharing documents and links to external websites is another way for freelancers to resist platform-imposed identities. For example, workers may share links to personal websites, online portfolios, or social media profiles as a way to expand their personal identities. For example, one participant discussed the various profiles they have established across various online platforms.

"My own website; that's the main hub... Then I've got, like, I'm on Google, my business; Yelp; my Yahoo profile. There are so many little itty-bitty ones that I just did to be there. I did just enough so that if somebody Googles my name, they'll see my website first, but then the first page will be filled with all of the other profiles – which they never look at, you know, so they're like, 'Oh, she's got a reputation. She's been here a while to have the first full page of Google,' but they'll go to my website." (Freelancer 5, Female, Creative)

6 DISCUSSION

This work focuses on the ways workers' identities are being reshaped, diminished, and controlled by the rise of gig work and digital labor platforms. Our qualitative approach contributes to our current and limited conceptualizations of platform-mediated identity and builds on existing CSCW scholarship on the gig economy and identity work [12,16,24,38,49]. Our data show that labor platforms play a central role in the identity development of freelance workers. Digital platforms are altering the labor process by transforming the way freelancers and clients interact. One outcome from this increased reliance on digital platforms mediating labor relations is that the workers lose control of their identity due a digital architecture that emphasizes (1) a commodified identity, (2) opaque but central algorithmic controls, (3) a constantly evolving set of platform-specific features and use policies, and (4) a ratings and reward framework that indentures the worker to the platform through the control of identity and ownership of reputation mechanisms. We discuss each below.

6.1 Deconstructed Identity: Digital Architecture that Commodifies Identity

To ensure an efficient and matching environment and to undermine the workers' abilities to build leverage through differentiation, the platform standardizes how a worker can be displayed on the platform. The implication to the workers is that they can only express their identity through predetermined criteria and categories. The result is that worker identity is deconstructed, or commodified. Workers are not seen as they would be in the offline world, but instead, are seen as bundles of skills and resources. We term this fragmentation of self representation a "deconstructed identity".

Findings show that some workers use a deconstructed identity to their advantage, by hyper-specializing their skill set through multiple identities. The hyper-specialty allows the worker to identify themselves as an expert on esoteric tasks which otherwise they may not have been able to differentiate because of the architecture of the profiles through which workers are displayed. Workers, thus, voluntarily portray themselves as a bundle of marketable skills and not a personal identity. Ironically, the hyper-specialization that workers see as a smart tactic, is only strengthening the control the platform has. As workers further continue to deconstruct their identities into skills, the more transactional the work becomes, and the more transactional that work becomes the greater the control the platform is afforded in the labor process. Thus, the concept of deconstructed identity highlights the tension of platform-imposed control disguised as flexibility and opportunity, a tension that has been observed in other CSCW research about the perceived advantages of freelance work [12,16].

6.2 Algorithmic Control of Identity

The engine behind these digital labor platforms are algorithms that help coordinate the market intermediary functions. At the most fundamental level algorithms control which profiles clients see when searching or browsing for workers [17]. But even when visible, algorithms are involved with other characteristics of the visible profile that are outside of the worker's control [53]. For example, when a worker's profile is marked "Rising Star" it is given greater visibility to clients, even though the worker cannot control if and when they are identified this way. In this example, *without consent*, the algorithm has changed the worker's identity. Platforms are also using algorithms to collect and display ratings and other metrics in real-time, again affecting the worker's identity without consent [60]. Loss of control of identity has implications beyond identity management, because whether and how online workers are viewed affects their access to resources and employment opportunities. This type of invisible algorithmic control is also embedded in other work practices and economic systems. Through the concept of algorithmic authority, Lustig et al. [48] identify additional ways algorithms increasingly mediate individual's routine engagements, arguing algorithms have the power to "manage human action and influence what information is accessible" (p.1057).

6.3 Platform Features and Practices Constraining Identity

Data also make clear that constantly evolving and changing practices have implications to identity and identity management. Many times, these changes were implemented without advance notice or explanation. Over the course of this project's lifecycle, we explicitly documented changes to the platform's policies and practices in which there were many. For example, in March 2020 the platform purged nearly 700,000 profiles, including profiles of some of our research staff. The change happened overnight without any prior indication or knowledge. In another change, the platform adjusted their policy in how they dealt with freelancers who completed a job but did not receive a review from the client. This change affected the aggregate "job rating score" that the system assigned workers, which has a ripple effect in how they're displayed in the system and perceived by workers. Recently, the platform introduced a series of talent "badges" and was a topic of great interest to our respondents. Badges identify workers as more qualified freelancers. This identifier differentiates the worker from other workers with similar skills and are coveted because of this. The worker cannot identify themselves with specific badges, instead the platform grants a worker this badge based on publicized but somehow ambiguous criteria (e.g., "proven-track record"). This ambiguity is one form of invisible mechanisms that create a "technological unconscious" for users who must trust the platform's predictability, while remaining "vulnerable to the invisible effects" of this technology [47] (p.744).

Additionally, Upwork's platform developed a feature in which potential clients can filter and search for workers who have been given these badges. Items like badges and ratings (which we will discuss below), we argue, is an expropriation of the worker's identity. The platform is moving away from data provided by the worker, to structuring and emphasizing the data they provide about the worker. In essence, the platform is converting personal identity into a commodified metric driven system that strips identity management from the worker.

6.4 Indentured Framework: Ownership of Identity and Reputation

The rating and review system is central to the platform framework and its prominence is driven in part by the importance of ratings in facilitating a smooth platform transaction. In a more traditional setting, workers are able to build their identity through several different mechanisms including word of mouth and within specific professional circles. In other words, worker identity is curated by the worker and is built over time. In platform-mediated work, clients and workers are strangers brought together by the platform [38,49]. So, identity is externalized to the framework provided by the platform and exists on the platform as accumulated ratings and reviews. The platform strictly controls how one's rating is defined, measured, displayed, and used, which in turn shapes the identity of the worker and how the worker is seen by the potential client. Our findings strongly demonstrate that the reliance on ratings and reviews as a de facto

identity, pushes the freelancers to do everything possible to maintain high ratings and accumulate positive reviews from their clients. This gives both the client and the platforms noticeable leverage in the transaction. We routinely heard of workers forgoing payment, or completing additional tasks free of charge, to protect their ratings. Through the rating system and other related policies and practices, the platform puts workers in a position of deference when interacting with clients and platform because any dissatisfaction can result in an immediate impact on their ratings and subsequently their ability to land new jobs or even continue working on the platform [16]. The outcome is that for many, their online identity becomes their ratings. Their online identity is formed and managed by the framework established and maintained by the platforms.

Beyond the expropriation of identity by the platform, the framework has created such a dependence that the longer the worker continues on the platform the more indentured the worker becomes to their platform created identity. This is because whatever a freelancer accumulates in terms of professional reputation and connections get lost if/when they leave the platform. This means that the message perpetuated by platform companies about freedom eventually becomes an illusion. And our data show that this is only compounded over time as user ratings and work histories are owned and controlled by the platforms. This creates an environment in which platforms can continually extract surplus value from workers who are dependent on the ecosystem created by the platforms.

6.5 Worker Resistance to Platform Control

At the heart of the platform's attempts to expropriate the workers' identities is control. Without a mechanism that controls "visibility", platforms wouldn't be able to leverage their architecture to commodify identity. Without a commodified form of identity, platforms aren't able to create the framework that allows the platform to assume the identity management of the worker. Our data supports the notion that some workers recognize the vice grip that platforms exert [48] and that tactics to usurp control away from the platform is how they're able to take back control of their identity. The platform engages in explicit and more opaque forms of identity surveillance, and resistance is usually directed at the surveillance. For example, the platform expects the freelancers and clients to keep all communications entirely on the platforms and monitors communications to police this. Communications that may suggest an off-platform discussion will trigger a warning and may ultimately lead to termination of service. The penalty of being kicked off the platform is severe because that means all their accumulated identity (e.g., review and ratings) will be lost. If a worker is able to establish a personalized identity apart from the platform-controlled identity, the worker's dependency on the platform is weakened. One example of how workers circumvent this surveillance is by embedding contact information in files that are attached to communications, and to job proposals. In this way, they're able to establish a line of communication that bypasses the platform's surveillance. Workers also talked about external links, like personal websites, they include in proposals and documents so that they're able to establish a stronger identity beyond what the platform allows.

We learned of different ways in which workers asserted control of their identity within the constraints of the platform. One way was using keywords to signal expertise. Workers also recognized that the portfolio section was an area in which the platform is unable to objectify and distill things down to a metric, allowing for greater identity expression. We also documented fluidity in resistance tactics. The longitudinal nature of our data allowed for us to see the evolution of platform control and the corresponding response of resistance by workers. What is clear is that the platform is constantly evolving, and the online freelancers are constantly responding: a difficult and important negotiating space. The constant changes mean that workers can never be certain about their identity. Even when they have established avenues of agency, freelancers are at the mercy of changes implemented by the platforms to maintain their market power.

7 IMPLICATIONS AND CONCLUSION

7.1 Implications for Identity at Work

We advance two implications for identity at work, each deserving additional attention, building from the findings and discussion reported here. First, the concept of identity is challenged by the market-based logics of contemporary labor arrangements. This logic relies on digital platforms mediating the market transactions. This means that a worker's identity becomes a standardized and structured set of fields and topics, digitized and independent of the worker. This deconstructed identity is surveilled and used as input to the algorithms of matching, ranking, badging and rating that - in turn - become the platform-imposed identity of that work.

This suggests that platform identity can be better understood as shifting from being a subjective and personal story to becoming an objectified, standardized, and controlled depiction of the bundles of skills and ratings that support market-based transactions. Such a shift in the conceptualization of identity deserves additional attention: both for the ways in which the expropriation of identity challenges contemporary thinking on work identity and for the thoughtful ways that

workers resist the commodification of their identity. This worker agency is visible in the efforts by freelancers to learn what the algorithm wants and what the client sees, and then to manipulate their data and activities to maximize their possibilities. The elemental tension for identity at work is that this concept becomes less about who you think you are and more about data that helps others select you.

7.2 Implications for Platform Design

Building from the findings and discussion, we raise two identity-related design possibilities for platform owners to consider as they continue to adapt and evolve the features, functions, and policies of use. First, we encourage digital labor platforms like Upwork to provide more guidance about how the material on a freelancer's profile is used for rating. And, in doing this, to provide feedback to freelancers on how potential employers read a profile. These are simple changes that do not alter the structure of, or drive to, standardize profiles. And these changes leverage the data collection being done by the platform to provide the online workers more agency.

Second, digital labor platforms could also enhance worker identity management by providing more transparent guidance on how ratings, badges, rankings, and other forms of comparison are assessed and assigned. As Bar [7] notes, markets work best when the elements used to decide on a transaction (such as skill, experience, wage cost and - increasingly - the worker's ratings) are clear. Rating and ranking transparency will help both employers and workers better understand the market and position themselves for success. Such a design change goes to a central insight for online labor platforms: the design of the interfaces - the features, functions, and policies around use - are also the design of the market. Platform owners will be careful to make design changes to weaken their market control, suggesting that some sort of regulatory oversight will be needed.

7.3 Conclusion

One outcome of the expanding role of digital platforms mediating access to work for project-based or freelance workers is the deconstruction of their identity. These workers are subjected to a process that leads to a standardized representation of themselves - imposed by the platform. This standardization of their identity allows it to be reshaped, diminished and controlled by the platform. In this paper we argue online freelancer identity is framed by client feedback and ratings, the algorithms used by the digital platform, and controlled by the terms of use. The result is a deconstructed identity in which workers are represented as a bundle of skills and a series of metrics that become a core part of their online identity. Taken together, these findings highlight the algorithmic control these platforms enforce on the freelancers. Coupled with use policies and platform design, this control creates a market space in which platforms continually extract surplus value from workers who are dependent on the platforms. Finally, we discuss several tactics of resistance to the ongoing control and surveillance from platforms at the core of online freelance work.

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