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THE CONSEQUENCES OF VISIBILITY AND OPAQUENESS FOR PLATFORM WORKERS

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Digital technologies can considerably increase the visibility of people's behaviours and activities, and therefore researchers should pay more attention to visibility and opaqueness in organisations. This paper focuses on visibility in terms of the information given or mediated to workers. The aim of this paper is to examine consequences of visibility for workers who carry out work tasks through digital labour platforms. The research will focus on how visibility or opaqueness in practice promotes or hinders workers' capacity to act and to make informed choices in their work. The visibility paradoxes of connectivity, performance and transparency are used as methodical lenses. The same platform operations can have both empowering and marginalising consequences for workers. While labour platforms continuously improve visibility to workers, they may also hide, inadvertently or intentionally, key information.

Keywords:
autonomy paradox, digital labour platform, performance paradox, platform workers, transparency paradox, visibility, visibility paradox

INTRODUCTION

While digital technologies make people's behaviours and activities increasingly visible to others and themselves, academic research needs to better examine how visibility is manifested in organisations, and with what consequences.[1] Digital labour platforms are a distinctive and growing part of the digital economy, connecting businesses and clients to workers and transforming labour processes, with the organisation of work becoming more

[1] Leonardi–Treem 2020.

decentralised than in traditional employment organisations.[2] Transparency and visibility have rarely been guiding themes in approaches in empirical studies of concrete practices of platform work, however. This is surprising because digital labour platforms are in the vanguard of algorithmic management.[3] This exploratory study attempts to fill this gap.

Visibility can create digital trust[4] between strangers. Through their algorithmic and AI systems, digital labour platforms obviously gain information about platform users (workers and clients), increasing the workers' visibility. This paper, however, examines visibility from the worker's perspective: Visibility here means that a worker, in practice, can visually see (or not see) information or clarifications about platform operations provided by the labour platform. The visibility or opaqueness caused by a labour platform affects workers by enabling or hindering their capacities to act in the platform environments. These workers' experiences of being enabled or hindered are referred to in this paper as the consequences of visibility and opaqueness. Simultaneously, this practice-based study aims to shed light on the social contexts and embeddedness of visibility of digital labour platforms.

By studying workers' experiences in the platforms' algorithmically managed working environments, the aim is to identify and describe visibility and its consequences by using a methodical framework of visibility paradoxes.[5] Our interest in paradoxes is prompted by an attempt to consider both the benefits and harms brought by digital visibility. The data is drawn from interviews of freelancers on a global online platform and couriers working for food delivery companies, all of whom reside and work in Finland. The different sets of data, consisting of interviews with expert workers in online platform work and with food couriers in on-location platform work, enable us to see similarities and differences across platform contexts.

First, the main features of visibility are presented, together with visibility paradoxes of connectivity, performance, and transparency. Similar paradoxes exist in platform work gaining new content and synergies. After describing the data and methods of the study, the core elements of matching and evaluation concerning two of the different labour platforms of the study are presented. The following section describes visibility and opaqueness on the platform as experienced by workers and interprets them in the light of the three paradoxes. Finally, the paradoxes of visibility in platform work are discussed, focusing particularly on their empowering and marginalising consequences – that is, how visibility and its paradoxes may promote or hinder platform workers' agency and learning.

2 Vallas–Schor 2020.
3 Wood 2021.
4 Sundararajan 2016: 60–65.
5 Leonardi–Treem 2020.

VISIBILITY

Visibility is a precondition for seeing and knowing. It involves two sides, that of seeing and of being seen, and it affects and can be controlled by both the observed party and the beholder. Visibility, as a double-edged sword, can be empowering, as is the case with marginalised groups gaining visibility and recognition. However, visibility can also be disempowering, as for example when people who are accustomed to being visible suddenly find themselves haunted by visibility, e. g. in political scandals.[6]

Stohl, Stohl and Leonardi (2016) define visibility as a construct consisting of three interrelated empirical attributes: 1. the availability of information, 2. "approval to share information", and 3. the accessibility of information.[7] Here, availability refers mainly to actions turned into data and storage in some way. Approval refers to legal obligations, norms or social consciousness to make data or information available and public. Besides availability and approval, visibility also requires the receiver of information to have knowledge about relevant directories and classifications, and makes necessary effort to read and understand the information. In other words, visibility or opaqueness is influenced by the actions of many human and non-human actors in social contexts and networks. Even more concretely, visibility in this study means that a worker can see (or not see) (as a text, picture or video, figures or orally spoken) information or clarifications from the labour platform that help them exercise their autonomy and craft their work according to their motives and interests.

When individuals can see people directly, they do not have to make inferences about what activities were conducted and how. However, when activities are made visible through technologies, audiences are often left to infer what kinds of activities the behavioural information is based on.[8] Digital technologies, data, and algorithms, also known as "digital architectures", extract and encode data from social life and work into certain data points, aggregate, compile, and sort data points to more abstract categorisations, and compute them into scores and measures.[9] Reduced to its essentials by digital architectures, information "takes new shapes; their richness and origins may be backgrounded or missing altogether, and the historical, political and other social forces shaping them may be overlooked or taken for granted".[10] The new knowledge, represented as scores, measures, or visualisations, take part in, shape, and influence human and social activities in different ways.

6 Brighenti 2007.
7 Stohl et al. 2016.
8 Leonardi–Treem 2020.
9 Flyverbom 2022.
10 Power 2022.

A paradox, a concept introduced into the literature of management and organisations in the 1980s, is defined as "contradictory yet interrelated elements that seem logical in isolation but absurd and irrational when appearing simultaneously.[11] Based on research, which mainly took a socio-material approach, Leonardi and Treem (2020)[12] identified and described three visibility paradoxes that arise as people's behaviours in traditional work organisations became increasingly visible through digital architectures. With paradoxes, these authors emphasise that increasing visibility can bring both benefits and disadvantages for organisations and actors. In the following section, the connectivity, performance, and transparency paradoxes will be presented.

The connectivity paradox

"The connectivity paradox occurs when actors who fear being disconnected from the organization begin to use new technologies to establish a connection that is so intense that they have to devise practices that enable them to disconnect." Such fear may hampers the benefits of remote work, such as flexibility and the ability to avoid distractions. The connectivity paradox arises because people may feel obliged to remain connected to the organisation due to either a group norm or to meet a colleagues' expectations.[13]

The connectivity paradox is linked to individuals' need for autonomy. In a study of knowledge professionals using mobile email technologies, Mazmanian, Orlikowski and Yates (2013) found that while the professionals viewed the technology as an effective way to enhance their autonomy, they simultaneously were observed to become increasingly engaged with their work and organisation so that they ended up working everywhere and all the time.[14] The authors call this the autonomy paradox.

The performance paradox

The performance paradox means that those who dedicate the most resources to task performance may not make those performances visible to others due to a lack of ability, opportunity, or inclination. This paradox occurs especially in organisational contexts such as knowledge-intensive or professional service jobs where the work carried out does not speak for itself, but actors still need to communicate about work so that organisations or clients can assess their performance. Paradoxically, the resources dedicated to communicating about work lead to less time and effort being spent on active work.

[11] Lewis 2000: 760, REF. in Hardgrave – Van De Ven 2017: 322.
[12] Leonardi–Treem 2020: 1613–1617.
[13] Mazmanian 2013.
[14] Mazmanian et al. 2013.

In a study on IT technicians who used entries into a shared knowledge management system to help determine appropriate job assignments, it was found that those technicians who were more strategic in crafting their communication in the knowledge management system were more likely to be seen as experts in their area of work.[15] The perception of expertise was not based on their actual performance of work tasks, but assessments were made based on shared, visible communication about the work.

The transparency paradox

Both visibility and transparency connote the ability to see,[16] but transparency is often used in a more value-based sense of organisations or actors being accountable to others.[17] The use of digital technologies increases visibility and transparency. However, transparency and visibility do not always imply that things can be seen and known.[18] This is the basis for the transparency paradox.

Opacity through transparency may take place inadvertently or strategically.[19] First, efforts by organisations to provide greater transparency can obscure and obfuscate organisational activities. Increases in transparency can produce a great volume and wide diversity of communication and information, which can make it more difficult to find and understand any single piece of communication. This leads to what is called unintentional or inadvertent opacity.[20] Secondly, strategic opacity means that organisations may espouse transparency, but in fact, they may make information visible in a manner that is ambiguous or difficult to understand. Transparency can also deflect attention from what is kept hidden or obscured.

In strategic opacity, actors who wish to make certain information hidden from view but who are bound by norms and regulations can produce opacity by strategically making so much information visible that unimportant pieces of information will take so much time and effort to sift through that the receivers will be distracted from the central information the actor wants to conceal. For organisations, strategic opacity can be a way to simultaneously comply with expectations and hide important information.[21] While the original transparency paradox is viewed as an issue of organisations, this study examines it and its consequences from the perspective of platform workers.

15 Leonardi–Treem 2020.
16 Stohl et al. 2016.
17 Ball 2009; Christensen–Cheney 2015: 76; Ananny–Crawford 2018: 974.
18 Ananny–Crawford 2018; Stohl et al. 2016.
19 Stohl et al. 2016.
20 Stohl et al. 2016: 133.
21 Stohl et al. 2016: 133–134.

AIM AND RESEARCH QUESTION

Using concepts and insights from the visibility paradoxes described above, the study aims to shed light on the way that visibility is enabled or hindered by labour platforms is manifested in platform work and what the consequences for platform workers are in terms of their work experiences on labour platforms. The expectation is that this exploratory study on worker experiences as consequences of visibility will provide insights into how visibility or opaqueness in practice may shape platform workers' agency and autonomy in carrying out their work and gaining outcomes they want to obtain. The research question is: *How are the connectivity, performance, and transparency paradoxes manifested in platform work from the perspective of visibility or opaqueness to platform workers?* In the next section, the data and methods of the study will be described.

DATA AND METHODS

The data is drawn from 23 qualitative thematic interviews of platform workers that receive tasks or projects through two large-scale labour platform companies. *The expert platform* is a global site, which mediates skill-requiring online projects for freelancers. The *Delivery platform* is operated by an international company, but offers couriers on-location work where food is transported from restaurants to clients by car, bike, or scooter. 14 freelancers were interviewed during the years 2018–2019. Four of the nine courier interviews were carried out in 2017 and five in 2022. The interview guide, although somewhat different in the interview sets, focused on platform workers' experiences in their work, how the platform shapes workers' activities and the role of platform work in their career and life.[22] Previously, these data have been analysed from the perspectives of platform workers' resources, activity concepts, co-creation, fairness and digital agency, and more information on the collection and characteristics of data is available from corresponding publications.[23]

For this practice-based study, the data was first read many times. The aim was to be sensitive and to carry out the analysis in line with the topics and perspectives that the interviewees themselves perceived as being important. The preliminary interest was in fairness issues, and therefore the first coding was done with fairness values expressed in the interviewees' talk. ATLAS.ti software was used in the coding. The value codes used were access, accountability, autonomy, communication, fairness, and transparency, with transparency featuring the most frequently. This prompted me to return to the literature on transparency and visibility. A new coding of "transparency and visibility" yielded 106 episodes. It was expected that workers would experience the visibility of their work and behaviour to the platforms as problematic. However, this was not always the case.

[22] Example for the interview guide was taken from Anderson–Westberg 2015.

[23] Seppänen et al. 2018; Seppänen–Poutanen 2020; Seppänen et al. 2022; Seppänen et al. 2023.

Therefore, the analysis centred on interviewees' accounts on how platforms make (or do not make) things visible to them and with what consequences by using the connectivity, performance, and transparency paradoxes as interpretative lenses. Finally, it was decided that to maintain the practical and contextual nature of visibility manifestations, a narrative description of the findings, rather than a systematic examination of the consequences of visibility, would suit the aim of the study. This required that the operational contents be delimited. The aspects of matching and rating were chosen because they are central in binding together labour platforms' key functions, and simultaneously they greatly affect platform workers' activities. The next part examines the matching and rating operations on Expert and Delivery platforms that are relevant in shaping affordances and resources for workers' action potentials.

MATCHING AND RATING ON LABOUR PLATFORMS

The function of a labour platform is to match workers with tasks offered by requesters or clients. Access to tasks is a central motive for workers' participation on the platform. Through using the platform, workers not only gain income, but also potentially have access to other opportunities that come with work tasks, such as learning new skills or building relationships with new clients. In general, platform workers, with their ability to influence their working time and possibly location, are seen to enjoy greater autonomy than employees,[24] and this is an often-cited motive for pursuing platform work.[25]

Besides matching, labour platforms most often evaluate workers or process worker evaluations to facilitate the matching process and to build digitally the necessary trust[26] between workers, clients, and possibly other actors in their ecosystems. There is a dynamic interaction between the platform and the assessment visibility of the people working on the platform. It should also be noted that Expert and Delivery platforms vary in their matching and rating operations.[27]

After a freelancer is accepted on the *Expert platform,* the freelancer must write a profile visible to everybody on the site. By clicking the profile, clients on the platform can read about the freelancer's competences, projects, and related feedback. After projects have been completed, both clients and freelancers rate each other. Based on the clients' ratings, the freelancer's activeness on the platform, and other parameters, the platform's algorithms assign a score (a percentage of success) for a freelancer that is visible in their profile. If freelancers enjoy success, they can obtain a badge as a visible mark of their good reputation.

On the *Delivery platform,* after receiving a working turn in the platform application, a courier goes to a starting zone and logs in to the app through their mobile phone,

[24] Pichault–Mckeown 2019.
[25] Pesole et al. 2018; Wood et al. 2019.
[26] Sundararajan 2016.
[27] Seppänen 2023.

linked to a GPS-based navigation system. After an order is received, the courier sees the restaurant's name and the customer's location and accepts the gig by clicking. A courier keystrokes into the app both the pick-up and drop-off of the food. When all parts of the task are completed, the courier is ready to receive the next order.

The Delivery platform conducts the matching between food orders and couriers. It collects data about couriers' tasks, the time taken to get from the restaurant to the customer, the couriers' working hours, etc. Based on these data, the company groups couriers into five levels at regular time intervals. Factors affecting the level include the number of deliveries per hour, no-shows or being late from their working turn, planned and actual hours, and other minor factors.[28] The better a courier's performance ranking is, the better the courier's ability to reserve working turns, and thus the ranking heavily affects a courier's access to work and earnings. The couriers on levels three to five have weaker possibilities for deliveries and income than the ones on the upper levels. The following section describes the findings, how visibility paradoxes are manifested on Expert and Delivery platforms, and with what consequences for the workers.

CONSEQUENCES OF VISIBILITY AND OPAQUENESS

The connectivity paradox

Expert platform. By connecting to the Expert platform, freelancers not only see a huge number of invitations for bids but also the histories and ratings of the requesters, which help freelancers in their selection. New freelancers entering the platform face the problem of how to get projects in the first place. As they have no track record on the platform, most requesters are hesitant to hire them. Freelancers often, especially new ones, stay connected and spend a lot of unpaid time making bids in order to be competitive in the platform marketplace. The competitiveness is made visible by the scores and the badge described above. In this study, an extreme case of connectivity was represented by an unemployed freelancer who spent many hours per day searching for projects, with practically no success.

As the Expert platform is global, requesters post their invitations at any time. This means that most freelancers must be attentive to searching for tasks or waiting for automatic emails they have requested from the platform to inform them about invitations for bids. Some freelancers may voluntarily follow up incoming email alarms at any time of day, in order to respond to them quickly enough.

Another narrative concerns connectivity. Freelancer 3 suddenly lost his badge on his profile. He immediately contacted the Expert platform to find out why. The reason, the platform representative told him, was not the poor quality of his work or dissatisfied clients,

[28] *Delivery platform's Induction Material* 2022.

but that some of his open-ended contracts with clients had not shown any activity (projects and transactions) for some time, which made the score go down and the badge disappear.

Excerpt 1

Freelancer 3: "I didn't know that if you have open hourly-based contracts with no projects for a while, it makes the score diminish. And in fact, it is not a score of client satisfaction but a score of job success. So, this makes the score and badge go down, which is totally weird […] Maybe, they have informed us about that in their webpage, but at least I was not aware of that."

Freelancer 3 immediately stopped all his open hourly contracts, and after a while, the badge was returned to him by the platform's algorithmic system. This narrative suggests that the platform, in order to connect freelancers more tightly to its operations, combines a follow-up of freelancers' activeness in their reputation scores. The consequence of the connectivity paradox for freelancers, besides involving them doing unpaid labour, is that if they want to remain competitive on the Expert platform, they must be active and stay connected to it.

Delivery platform. Once accepted, couriers start receiving tasks after entering the starting zone and opening the app. However, couriers who are not highly rated (that is, they are ranked among groups 3–5 out of five) may not receive as many working turns as they would like because the higher-ranked couriers in groups 1–2 have first choice of the turns they want. In this case, the lower-ranked couriers must stay connected to the app and wait for working turns to appear (Excerpt 2). Staying connected in order to get enough working turns is especially important for couriers who are economically dependent on the income from the platform.

Excerpt 2

Courier 20: "So, it is a moment of stress, if you are on level three and you want turns, so you are on call all the time on the phone to see if there are working turns available. And then you start learning that the turns for the next day can be there early in the morning or evening."

The connectivity paradox means that while doing remote work, people establish such an intense connection with the work organisation that they must develop practices to allow them to disconnect because they fear being disconnected.[29] The connectivity paradox arises because people may feel obligated to remain connected to the organisation due either to a group norm or in response to colleagues' expectations.[30] However, on the Expert and Delivery platforms, the "obligation to remain connected" does not stem from these reasons.

[29] Leonardi–Treem 2020: 1613.
[30] Mazmanian 2013.

Platform workers' urge to be connected, and thus their connectivity paradox, stems from their need to access work tasks. The connectivity paradox in platform work seems to be more directly related to the autonomy paradox, that is, it reflects the conflict between platform work's promise for autonomy and the requirement in practice to stay connected and spend a lot of unpaid time trying to find work. If the expectation of autonomy is high, as is often the case in platform work, staying connected, even voluntarily, does not favour such autonomy.

The performance paradox

Expert platform. As we saw above, scores and badges are important for freelancers on the Expert platform. Freelancers are empowered by the possibility of gaining platform-mediated visible scores of their work performance, and freelancers use them to enhance their work and business. The Expert platform seems to be inclined in its own strategy to support freelancers' own reputation and recognition through such visibility.

For freelancers, a consequence of performance visibility through rating is that they not only have to carry out their projects to the required standard: they also need to consciously follow, maintain, or improve their platform reputation (at least when they are not among the very top freelancers in their task categories).[31] However, there is also another side to the evaluation systems. While revealing the main factors leading to the award of badges, such as client ratings, income and freelancers' activeness, the Expert platform does not totally open up the complex and dynamic rating mechanisms to freelancers. Freelancers still face uncertainty stemming from the rating system (Excerpt 3).

Excerpt 3

Interviewer: "So, what would you like to change in Expert platform system?"

Freelancer 13: "It's tricky because I would say… the most difficult thing is the rating system because it's so mysterious, but at the same time, I have a 100 per cent rating and it helps me, so I can get more jobs. But when it doesn't work out in my favour, they lower my score, I don't understand why, it seems very random to me, or unfair."

It appears that Freelancer 13 (Excerpt 3) benefits from the rating system in the form of better access to future project opportunities. The "mystery" can be read as opacity, which is contrasts with visibility. The platform, through a mysterious combination of client ratings and other things, may lower a freelancers' score without her being able to understand why. Without such understanding, freelancers may lack the means to improve their work performance – that is, their ability to respond to the factors that

[31] Seppänen–Poutanen 2020.

determine their success is limited.[32] The consequences for a freelancer can be uncertainty and a marginalising feeling of unfairness.

Delivery platform. As noted earlier, the Delivery platform ranks couriers in five groups according to their performance. Compared to the ratings on the Expert platform, the nature of the task and its outcome are more routine and standardised, and therefore more explicit performance and rating criteria can be formulated and made visible to the couriers. However, couriers face uncertainty about how one is ranked in the groups for reserving working turns (Excerpt 4).

Excerpt 4

Courier 20: "At least when couriering by bicycle, first, you are unable to plan far ahead, if you will be able to obtain working turns or not, especially in summer. Because you don't know, first, what will your level be, because the Delivery platform decides how many workers go into the first and second levels, and it always varies. So, you never know whether you have been good enough for the first level. And you can guess, okay, if I'm on the second level, probably there will not be enough turns for me, because the couriers on the first level will take them all next [time]."

In Excerpt 4, Courier 20 explains why food delivery by bike as a full-time summer job is uncertain and untenable on the Delivery platform. Many bike couriers want to work as much as possible in summer rather than in the cold and snowy Finnish winter time. In summer, the competition between couriers becomes "cutthroat hard". Sometimes even being in group 2 does not guarantee getting enough working turns to obtain a satisfactory level of income, which shows the performance paradox in platform work: better performance does not necessarily lead to a better level and improvement in a worker's social positioning on the platform. There is uncertainty about the amount of demand at any given moment, and the company's tactics to counter this, according to Courier 20, are to flexibly regulate the number of couriers in each group level to balance the supply and demand of deliveries. The upside for couriers is that they can complete tasks ("gigs") during their working turns. The bad side is that they must compete with each other for the turns, and to do so, they must constantly maintain or improve their ranking in the level groups. The consequence of the performance paradox for workers is uncertainty and perhaps an unwillingness to continue doing platform work. It is also important for couriers how "gigs" are distributed during a working turn (Excerpt 5).

Excerpt 5

Interviewer: "Do you know how a gig is selected just for you?"

[32] Rahman 2021: 945.

Courier 23: "No, there's no information about that, we have tried to ask, actually nobody knows what the selection is based on. Obviously, it is related to distance. I have sometimes pondered if it is related to ranking, someone sometimes claimed that, this is all rumour. […] I don't know and probably even those app guys don't know, because that app has been developed somewhere abroad and it can be there in the code somewhere. Maybe nobody knows. But I think it would be fair to clarify it."

Couriers are unaware what the grounds for distributing gigs are. Excerpt 5 reveals how not knowing this basis has produced uncertain claims and beliefs, and the real knowledge is far "abroad" and "in the code somewhere", indicating an opaque, "smokescreen"[33] visibility. Many couriers have tried to ask the delivery company about it, with unsatisfactory results. According to Courier 24, knowing the logic of gig distribution would help couriers choose their optimal location when waiting for new gigs, and thus improve their performance.

Despite their ignorance about these issues, couriers know the basic logic of their evaluation and ranking. They know that speed and activeness – how many gigs they complete in an hour, and e.g. the number of working hours – are important criteria in their ranking into group levels. This pushes them to be quick, to complete as many gigs as possible, and to work long hours, implying haste and stress. Overall, the Delivery platform has considerably improved the visibility of its operations to freelancers through new digital technologies. This is especially clear between interview data sets carried out in 2017 and 2022.

Rating and ranking systems differ significantly between the Expert and Delivery platforms. Freelancers' scores have a great impact on clients, and their main objective in terms of visibility is to *help clients* in their selection of workers. The couriers' ranking, in contrast, is managed by the platform algorithms, and its main function is to allow visibility about a courier's performance *to the platform*. Despite these differences, there are also similarities. Both the Expert and Delivery platforms use ratings to balance the task market, and freelancers and couriers can influence their ranking and scores through their performance. Couriers also need to follow, maintain or improve their platform ranking and reputation, and not only to carry out their tasks properly. A similar consequence, a mystery surrounding rating and ranking, producing uncertainty, exists on both platforms. Labour platforms may need to keep their evaluation systems opaque for business confidentiality reasons or because, otherwise, users might game the system.[34] If systems can be easily gamed, there would be little variation in scores and ranking, which would make it difficult for the platform and clients to differentiate between workers.[35]

The ambiguity and the paradox are that the scores and rankings are both beneficial and harmful for workers. This paradox is certainly related to performance, but it is not quite the same as the performance paradox described by Leonardi and Treem (2020). Instead of the worker having to write down her achievements – and the paradox being between

[33] Harness et al. 2022: 6.
[34] Cedefop 2020:49.
[35] Rahman 2021: 949; Tadelis 2016.

working and writing about that work –, workers can influence their rating more directly through their work, but after that, the scores and rankings fall largely outside the workers' control, being moulded by the platforms' complex algorithms in a way that is partly opaque to workers. The performance paradox in platform work seems to be qualitatively different from that in traditional work.

The transparency paradox

The transparency paradox states that high levels of visibility may decrease transparency and even produce opacity. On the Expert platform, there is an abundance of information about invitations for bids for freelancers, which indeed creates a condition of transparency paradox for platform users. Freelancers are often empowered by the visibility of an expanded horizon of work possibilities. As one freelancer put it: "Now, I have the whole planet as my clientele." Offers are already formulated and visible on the platform, which those freelancers planning to start working as entrepreneurs consider an advantage in saving marketing time.[36]

Due to the large volume of information, relevant knowledge about suitable projects can be difficult to find. Therefore, the platform has created a sophisticated system of categories, filters, keywords, and alarm systems that the freelancers interviewed found relatively easy to use. As platform workers are typically independent, labour platforms must design their visibilities (e.g. user interfaces) and operations to be as easy and user-friendly as possible, which is often not the case in traditional work organisations.[37]

While the Delivery platform carries out matching between couriers and food orders, couriers' visibility to the platform and its market is much more limited than on the Expert platform. The transparency paradox is illustrated by an incident in courier work. The Delivery platform had recently made the fee of a delivery "gig" visible to couriers already in the first announcement before a courier accepts it. This was a welcome improvement to couriers' work, because it helped them to decide if a gig is worth taking.

This novel visibility was available only for couriers who agreed to change their old contract to a new one. The change of contract was offered voluntarily by email to couriers. This new contract included a change in the pricing system: the fee for each gig was higher than before, but an hourly wage paid during a working turn, which had existed in the old contract, was taken away. Couriers responded differently to the possibility of a new contract. The old contract offered more stable pay, while the new one promised better visibility, a courier said. Some couriers opted for better visibility, while others calculated the outcomes of the change in terms of income and decided not to change.

[36] Seppänen et al. 2019.
[37] Vairimaa 2023.

Excerpt 6

Courier 20: "Well, it [the platform through email] recommended changing the contract. It was not a question, more like, hey, now there is a chance to change into this. There was no talk… They made it look like a much better contract. But together with my brother, we calculated and looked at it and thought and talked about this contract change. The new contract is not better, in fact."

Strategic opacity, as part of the transparency paradox, means that organisations may espouse transparency, but they may make information visible in a manner that is ambiguous or difficult to understand. Labour platforms can and do improve visibilities for the benefit of workers. At the same time, they might tie these improvements together with other less beneficial changes, so that the latter may remain hidden, either strategically or inadvertently, from the workers. It is also possible that workers do not have the necessary skills to read or interpret the information, or that accessing the information requires too much effort from them. In these cases, the transparency paradox arises because visibility and transparency are not produced even though the platform uncovers information. The data does not allow this incident to be analysed in more depth, but still, examining it might help us grasp the processual and contextual nature of the transparency paradox formation and consequences in platform work.

The word transparency has connotations of accountability – that an audience can trace the path or process through which a certain decision or outcome was made in an organisation. In the performance paradox above, we have seen how couriers and freelancers in this study express their wish for transparency concerning how worker ratings, ranking, and scores are calculated. This relates closely to the performance paradox of platform work. At the same time, it is an example of a transparency paradox – platform workers need to know the evaluation logic and mechanisms, but platforms still hide them, at least partially. The consequences of the transparency paradox for platform workers are uncertainty and a need to maintain a critical attitude to and to question any suggestions for changes on the part of labour platforms, as Courier 20 (Excerpt 6) did.

Based on the findings, we can now formulate visibility paradoxes from the perspective of platform workers. Unlike the transparency paradox, a performance-transparency paradox is depicted.

The connectivity paradox is related to the autonomy paradox, that is, between workers' high expectations of autonomy and them actually having to spend a lot of unpaid time and to be continuously connected to the platform to find work. As their level of loyalty towards the labour platform is low, platform workers' urge to remain connected stems from their need to put effort into accessing work tasks and not from their commitment to the platform company.

Performance paradox: Platform workers not only have to complete their tasks satisfactorily, but also to observe and cultivate their rating, ranking and scores so that they improve or at least maintain their chances of obtaining work tasks in the future. The special aspect of the performance paradox on labour platforms is that the formation of the

users' reputation, and often also the datafication of their behaviour, is chiefly carried out, mediated, and made visible by the algorithms of the platform.

The performance-transparency paradox is between platform workers' need for visibility about the labour platform operations, and the platforms' difficulty or reluctance to make the information about their operation completely visible.

DISCUSSION AND CONCLUSION

This paper is an exploratory study into the practical consequences of visibility in work that is carried out via digital labour platforms. The visibility paradoxes of connectivity, performance and transparency were used as analytical tools for interpretation. Examining 23 qualitative interviews of freelancers on a global expert platform and couriers on a food delivery platform has demonstrated how these paradoxes, manifested in platform work, very much centre on the algorithmic nature of digital labour platforms.

In this study, a paradox means that something may be both beneficial and harmful for platform workers, producing experiences that can be absurd and irrational from the workers' perspective. The three visibility paradoxes – connectivity, performance, and transparency – were identified based on observations of traditional employment between workers and organisations. While the network-like structure on labour platforms is clearly more complex and distributed than conventional work organisation, the visibility paradoxes found in platform work are also qualitatively different, and performance and transparency paradoxes are closely intertwined. We have seen that platform-enabled visibility helps workers in many ways. This study also suggests that unpaid labour, uncertainty, the necessity of being active on the platform, feelings of unfairness, constant attention by workers to their platform reputation and limited means to improve performance may all be consequences of visibility paradoxes for platform workers.

In this study, visibility paradoxes are considered especially from the perspective of the central and constitutive matching and evaluation operations of labour platforms, because they have consequences for people's access to resources, recognition, and opportunities.[38] The representativeness of the consequences of visibility paradoxes among individual platform workers would require a deeper and more systematic study. The findings suggest that the same features of platform operations can have both empowering and marginalising consequences for workers.[39]

The question of autonomy is central in platform workers' connectivity paradox. The autonomy paradox, involving a tension between the promise of autonomy and an expectation of commitment, imply that workers self-impose restrictions on their autonomy, and these restrictions are tied to various bureaucratic, concertive, cultural, market, or

[38] Kornberger et al. 2017.

[39] See also Deng et al. 2016.

technological mechanisms. Beyond this, the autonomy paradox implies that workers may experience their self-imposed restrictions as enhancing their autonomy.[40] The autonomy paradox may show and explain why platform workers invest and dedicate more time and effort to their work than their expectations of freedom and flexibility would suggest. The rating and ranking systems of labour platforms, evident in performance and transparency paradoxes, seem to push platform workers to this kind of voluntary dedication.

A sense of usefulness is one of the fundamental attributes of worker recognition,[41] and platform evaluations serve as means of recognition and identity building. It is therefore important that workers, on platforms and elsewhere, could be more associated with collective decision-making and action at work. "To be involved and have influence is not only a positive experience but also promotes understanding of the [ICT] systems' complexity and increases their acceptance."[42] Communication from the platform to workers, especially when it provides the grounds for changes, is an important form of involvement.[43] This is one practical implication of the study.

Algorithmic systems, and particularly platforms, can amplify actors' visibility at work. Visibility through platforms' algorithms may provide workers with more capacity to act through better self-knowledge.[44] Visibility paradoxes, in particular the performance-transparency paradox in this study, may enhance agency when workers are pushed to question, learn and act on their scores, opaque features or uncertainties caused by complex algorithmic systems.[45] However, it is also possible that digital visibility or opacity, instead of leading to questioning, will enhance conditions of voluntary servitude where algorithms may tell us how to act or what is a good attitude to have.[46] Complex visibilities in platform work not only fulfil the expectations or leave them unfulfilled, but also shape the formation of expectations of fairness. As the findings in the transparency paradox show, transparency and accountability need critical audiences, both inside and outside organisations.[47] As a practical implication, platform workers and others are encouraged to use available and new means to be critical audiences. When workers contact labour platforms and ask questions or make suggestions, it may seem to have little or no effect, but in the long run, there are examples of labour platforms making changes due to workers' initiatives.[48] The way algorithmic visibilities help or hinder workers' learning, and how visibilities shape their fairness expectations require future research.

Labour platform operations are dynamically changing. Digital culture's preoccupation with new things means that the systems we are engaged with today might be changed to

40 Mazmanian et al. 2013.
41 Dejours 1998.
42 Wurhofer et al. 2018.
43 Seppänen et al. 2022.
44 Bobillier Chaumon 2021.
45 Seppänen et al. 2023.
46 Bobillier Chaumon 2021.
47 Kemper–Klokman 2018.
48 Seppänen et al. 2018.

new ones tomorrow.[49] Platforms are able to draw upon vast quantities of data to learn from, and they optimise many processes and respond to different demands, not least to those coming from their competitors, authorities or shareholders.[50] We can imagine the huge possibilities either for visibility or opacity that labour platforms and other organisations have with their algorithmic and AI management systems.

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[49] Kemper–Klokman 2018.

[50] Van Doorn – Badger 2021.

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