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# Connecting at the edge: Cycles of commodification and labour control within food delivery platform work in Belgium

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## Abstract

In this paper we examine how commodification and labour control unfold within a digital labour platform, focusing on the connections between the platform, its users and workers. Based on a qualitative study covering couriers, clients, restaurants and the management of a food delivery platform in Belgium, we shed light on the complexity of commodification, explaining how the platform simultaneously empowers and disempowers all participants. We illustrate how the platform fosters commodification by granting access to transactions and fuelling competition, while at the same time increasing dependency through withholding information from users and workers. In so doing, we contribute to understanding how platforms exert control and create, extract and capture value by connecting users and workers with each other through the use of digital technology.

**Key words:** labour platform, digital technology, work, control, commodification, value, food delivery

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## **Introduction**

Recent studies on platform work – i.e. paid work mediated via on- and offline labour platforms – have turned their attention to the control processes involved (Griesbach *et al.*, 2019; Wood *et al.*, 2018), the role of new technology (Moore, 2017), platforms' abusive use of the self-employment status (Cherry and Aloisi, 2017) and the emergence of platform worker activism and representation (Tassinari and Maccarone, 2020; Vandaele, 2018). Several studies have highlighted the coordination and intermediation processes between different parties as key to understanding how labour platforms work (Heiland, 2021; Langley and Leyshon, 2017). Intermediation is based on platforms collecting and processing vast amounts of data to track and predict transactions and activities, bringing workers and users together in ever-changing constellations for the execution of a task (Van Dijk *et al.*, 2018). Arguments in the literature claim that the way in which platforms steer workers and users through the use of technology is at the core of 'platform capitalism' (Srnicek, 2017). In addition, it is claimed that these mechanisms underpin value creation, extraction and capture by digital platforms (Zysman and Newman, 2006).

Sociological and labour studies have examined the implications of digital platforms for labour subordination and control, pointing to the importance of algorithmic ratings, monitoring and financial nudges prevalent in these platforms (Gandini, 2019; Shalini and Bathini, 2021). Wood *et al.* (2019) refer to a process of commodification when explaining how platform capitalism

achieves control by subordinating labour through exposing workers to market forces. While these studies are clearly important, they fail to account for the complexity of the labour arrangements generated by platforms (Richardson, 2020). We argue that, by focusing solely on a platform and its workers without considering the entirety of relationships involved in platform work – including the users which we define here as both individual clients and businesses such as restaurants –, labour study scholars are limiting the contribution that they can make to understanding the complex forces underpinning commodification.

Drawing on scholars who use Marxian theory to locate platforms at the centre of “digital economic circulation” (Langley and Leyshon, 2017: 13), we attempt to uncover the complex nature of these forces by examining the relationships between platform workers and users. In so doing, we reveal what we call the empowerment and the disempowerment cycles connecting a digital labour platform, platform users (i.e. restaurants and clients) and workers (i.e. couriers), showing how they serve the logics of valorisation – which we here define as value creation, extraction and capture – within platform capitalism. Our study explores how platforms foster commodification by fuelling competition through the use of digital data and metrics to boost efficiency in managing transactions between workers and users, and simultaneously create dependency through withholding information. This suggests that commodification occurs through both competition and information asymmetry, and that the joint occurrence of these forces enhances platforms’ power to control and valorise. The two questions are thus: 1) how do labour platforms commodify relationships between workers and users; and 2) what practices do they use in the service of valorisation?

Examining digital data and metrics is key to understanding how ‘new’ modes of capital valorisation and labour control occur (Srnicsek, 2017). Shapiro (2020), for instance, refers to dynamic price-setting as a calculative technique allowing platforms to optimise efficiency at the expense of other market participants. Attoh *et al.* (2019) show how Uber workers’

subordination occurs through their participation in the production of digital data. Digital data and metrics are deployed within the platform-worker-user relationships to reduce transaction costs (Lehdonvirta *et al.*, 2019), concealing the social arrangement behind the platform interface (Richardson, 2020). This is because “valuable data is generated when customers browse their apps and rate the services provided, or when restaurants fulfil orders” (Van Doorn and Badger, 2020: 1476). We complement this literature by pointing to the empowerment and disempowerment cycles and explaining how platforms use digital data, metrics and algorithms within these cycles to commodify and valorise. Based on a qualitative study<sup>1</sup> within a food delivery platform (FD-Plat – an anonymised acronym) in Belgium, we illustrate the platform practices accounting for the complexity of commodification. We argue that empowerment and disempowerment create dependency, in turn enabling platforms to control workers and users while denying them access to the digital data they generate, as well as restricting workers’ access to income and social security. In so doing, platforms extract value within the labour process by controlling labour power. Moreover, they capture value from users (particularly restaurants) who are monitored by the platform through client and worker ratings.

The paper has three sections. In the first, we frame our argument within existing theoretical debates. In the second, we present the research design and the methodology underpinning data collection and data analysis before going on to present the findings. In the third, we discuss and conclude.

### **Commodification and platform work**

Commodification is the theoretical term used by Marx (1867) to indicate how labour is embedded in market relationships of competition, hence generating the “exchange value” of a

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<sup>1</sup>Data collected includes interviews with workers, clients and the platform management, secondary data and participatory observation as a client.

service/good for somebody “for whom it serves as use-value” (Marx, 1867: 131). Analysing transactions underpinning use / exchange value between users, workers and the platform is thus essential to grasp commodification in the platform economy. While self-employed platform workers and clients exist ‘independently’ of each other, they are brought together ‘on-demand’ by the platform to buy or to sell a service (Wood *et al.*, 2019). Current definitions refer to labour platforms as technological tools organising interactions and transactions between workers and clients online. This is often referred to as the ‘triangular’ platform work relationship (Lehdonvirta *et al.*, 2019; Schörpf *et al.*, 2017), where digital technology and algorithms play a key role in bringing labour supply and demand together (Graham and Woodcock, 2018). Accordingly, labour platforms establish social arrangements between workers and users (Richardson, 2020). Valorisation processes within the platform economy are based on intermediation practices and capitalization processes between platforms, workers and users (Langley and Leyshon, 2017).

Positioning platform work within the social arrangements underpinning ‘platform capitalism’ (cf. Srnicek, 2017) requires an understanding of platform work as a capital-labour relationship (Moore, 2017; Stewart *et al.*, 2020). One insightful example is Joyce’s (2020) work on the ‘cash nexus’ between platforms and workers, “deprioritising the legal conceptions of employment that frequently dominate discussions on platform work in favour of a more sociological approach” (Joyce, 2020: 6). Joyce (2020) refers to subsumption as the Marxist term describing the historical process whereby capital comes to dominate labour processes. We argue that pointing to the capitalist nature of the production relationship within platform work also requires focusing on commodification, control and valorisation as equally relevant Marxist concepts. They need to be examined within the context of the triangular platform-worker-user relationship in order to better understand how labour platforms coordinate ever-changing constellations of workers and users. Stanford (2017) compares platform work with the ‘putting-

out' system in early capitalism, where companies subcontracted work to workers who assembled items (such as shoes, clothing) in their homes. This system illustrates a historical form of capitalist valorisation through coordination where commodification by the conversion of consumption goods ('use value') into monetized commodities ('exchange value') was facilitated by controlling independent workers outside the factory walls.

Recent studies suggest that labour platforms have extensive control over the compensation for and the organization of work, as they can hire workers by task and thus instantaneously adapt the workforce to their needs (Woodcock and Graham, 2020). Platforms impose the conditions under which a fragmented workforce connects with users (Wood *et al.*, 2019) and limit workers' and users' capacities to access information which they could use for their own advantage, thereby exercising control through 'information asymmetries' (Rosenblat and Stark, 2016; Shalini and Bathini, 2021). This happens in a context where platforms shift economic risks to workers, providing no social protection and requiring workers to use their own resources (De Stefano, 2016). Hence, critical labour studies support the assessment that the labour relationships underpinning platforms are intrinsically commodified. Studying how commodification and control occur is essential to understand how platforms have come to dominate labour processes.

### **Control and platform work**

Labour platforms use algorithms and other technology to collect and process large amounts of data generated by users and workers (Vallas, 2019; Van Dijck *et al.*, 2018). Platforms then prevent workers and users from accessing this data (Helmond, 2015). Recent studies refer to 'algorithmic management' as a control system where self-learning algorithms assume responsibility for making and executing decisions affecting work (Möhlmann and Zalmanson, 2017). However, considering algorithms as a source of control may risk reifying algorithms at

the expense of underplaying the importance of the overall dynamics of the capital-labour relations underpinning platform capitalism (Moore, 2018). This is because it is not the use of algorithms that accounts for platforms evaluating and assigning work (Duggan *et al.*, 2019), but rather it is the power of capital over labour – and the complexity of the underlying social arrangements – that explains how platforms use technology. Accordingly, all players need to be simultaneously coordinated in order for control through an algorithm to be effective (Richardson, 2020). This has two implications for the study of platform work.

First, labour platforms repurpose and fence off capitalist relations in a new environment where workers and users are constantly monitored (Schor and Attwood-Charles, 2017; Schörpf *et al.*, 2017). Data appropriation for value extraction and capture go hand in hand with data expropriation and value creation (Van Doorn and Badger, 2020). Second, commodification of workers' and users' activities results from the continuous coordination by the platform through metrics (e.g. ratings, performance statistics) (Langley and Leyshon, 2017). Platforms use metrics to govern access to and exert control over data and information which are a relevant source of value (Jabagi *et al.*, 2019). As we will explain, platforms engage in valorisation by not only easing access to transactions, thereby fostering the conversion of use value into exchange value through commodification, but also by withholding information from users and workers. This also increases their capacity to exert control. Thus, in line with Gandini (2019) we contend that platforms are a 'place' where control is deployed to respond to the logics of capital valorisation. We illustrate how this happens at the interfaces between workers, users and the platform, using the empowerment and disempowerment cycles of commodification.



## **Research Design and Methodology**

### *Context*

Digitalisation has fostered deregulation in Belgium (Basselier *et al.*, 2018), in turn potentially undermining trade union power and the encompassing system of collective bargaining and social protection (Van Gyes *et al.*, 2009). Notably, the ‘De Croo law’ allows officially recognized platforms to use the so-called ‘peer-to-peer’ employment status. As of 2018, peer-to-peer workers were able to earn up to €6340 (the 2020 figure) tax-free and exempt from social security contributions, though the Belgian Constitutional court recently overturned this scheme and a 10.7% tax rate will apply from 2021 onwards (Paelinck, 2020).

Food delivery platforms have exploited Belgium’s quite generous tax regulations to grow rapidly while circumventing workers’ bargaining rights and employment protection. The conditions under which Belgian workers engage in food delivery work differ widely. While a large share are young students, economically dependent on their parents, others combine platform work with a job as an employee or in self-employment and yet others rely on platform work as their sole source of income. Most food delivery platforms do not offer employee status, meaning that couriers’ access to social protection depends on whether they have other regular employment or financial support (Drahokoupil and Piasna, 2019). Peer-to-peer couriers are often migrant workers with no stable source of income, generating concerns about such workers’ lack of protection and social rights (Graceffa, 2018).

FD-Plat, the food delivery platform under study, hires couriers under various self-employed statuses or under the peer-to-peer status. Originally, all were paid by delivery, i.e. receiving a fixed amount for picking up and delivering the food and a variable amount depending on the distance to the client. In response to the Belgian tax authorities challenging the classification of couriers under the peer-to-peer status, FD-Plat switched from a variable to a fixed delivery fee for peer-to-peer workers in October 2019 and eliminated their possibility to see the client’s

location before accepting an order and whether or not the client has tipped them. FD-Plat has grown substantially over the past few years, expanding to new cities and restaurants. When setting up business in Belgium, FD-Plat prioritized collaborations with restaurants that didn't yet have a delivery service. Recently, FD-Plat has also started working with restaurants with their own delivery service in place, allowing them to choose between using their own or FD-Plat's equipment and workforce.

### *Data collection*

Data collection and analysis followed an abductive approach, moving iteratively between data and extant theory (Blaikie, 2007). Under this methodological approach, researchers depart from a review of the relevant literature, but challenge their understanding of the phenomenon under study by puzzling over the experiences and perspectives emerging from the empirical material. The objective is to construct theoretical ideas by making ongoing sense of the tension between the extant literature and unexpected research findings (Timmermans and Tavory, 2012). While our investigations were by and large performed from a Marxist theoretical perspective – in particular our interest in commodification, valorisation and control –, the abductive method enabled us to deepen and revise our understanding of these concepts in the platform economy based on unexpected empirical findings.

We started our fieldwork with an interest in how platforms commodify and control labour. We conducted three rounds of interviews with 37 workers between December 2018 and March 2020 (see Appendix 1 for an overview of the respondents). The respondents were recruited through different channels, using social media, personal networks, workers' meeting points and snowball sampling. In order to acquire a comprehensive understanding of how the platform fosters commodification and control, we distinguished respondents by employment status, the extent to which platform work was undertaken in combination with other employment, as well

as a migration background. The interviews were conducted in Leuven, Brussels, Antwerp and Ghent, cities with varying degrees of urban concentration. Reflecting the demographic composition of Belgian food couriers (Drahokoupil and Piasna, 2019), most respondents were men in their 20-ies, though we also included five women and older couriers. Conducting multiple rounds of interviews with couriers enabled us to observe how the platform intensified competition by enlarging its workforce and how it increased information asymmetries, especially for peer-to-peer workers. Moving back and forth between data and theory, we inferred how these observations related to labour control and commodification, while cross-checking our explanations with new data. In making sense of the practices underpinning commodification, we found that they occurred within the ‘triangular’ platform-user-courier relationship. Hence, we felt that data from the other participants would be crucial to fully understand these phenomena.

Interviews with restaurant managers, clients and platform management were conducted in early 2020. Clients were students or workers who used FD-Plat, and sometimes also other platforms, to order food. To explore differences regarding transactions with restaurants, we selected restaurants offering different kinds of food and with a business relationship of varying length with FD-Plat (between one month and four years), some of which also used other platforms. The information provided by platform management was important to understand valorisation processes and the platform’s use of digital data. Interviews with restaurants and clients yielded deeper insights into the complex relationships and transactions between the different participants. Interviews lasted between one and two hours and were transcribed verbatim for analysis.

To complement and verify the information gathered in the interviews, we used participatory observation, with one of the researchers becoming a platform client and using the payment and rating system. Our research also benefited from secondary data collected between June 2019

and January 2020, especially the platform's website for workers and a social media community used by workers.

### *Data analysis*

Both primary and secondary data were analysed and encoded, moving back and forth between data, concepts and categories (Blaikie, 2007). The coding was carried out by the researcher who conducted the interviews and was double-checked and extensively discussed with the second researcher to ensure the inclusion of key topics and to formulate hypotheses about the relations between them.

Drawing on the concepts of control and commodification, the analysis started by identifying the various ways through which the platform controls workers and the transactions happening within the platform. In their interviews, couriers described the controls they faced (e.g. statistics, sanctions), but they also highlighted experiences of autonomy, for example influence over their working hours. As further data on the platform, restaurants and clients was collected, we revised and extended the coding scheme, adding more codes on the practices implemented between users, workers and the platform (e.g. rating mechanisms, monitoring). This resulted in a list of fifty-three first-order topics that came up repeatedly in the interviews. These topics showed that all players benefitted from access to transactions (e.g. 'saving time and effort' in the case of clients, 'increasing sales' in the case of restaurants), but also faced constraints when accessing transactions (e.g. 'problems during delivery' in the case of clients, '(limited) availability of orders' in the case of couriers).

In the second-order analysis, we reframed and rearranged the empirical findings in an 'empowerment cycle' and a 'disempowerment cycle'. This enabled us to theorize about the unexpected coexistence of practices supporting and constraining participants, as we could now see that they fundamentally related to each other, reflecting the platform's commodification

strategies. As the analysis progressed, we suspected a relationship between information asymmetry and the platform's capacity to exert control, leading us to go through the empirical material again to verify this link. We also returned to the literature to deepen our understanding of the intermediation processes connecting different participants in the platform economy. Simultaneously considering this literature and our data enabled us to see that these processes fundamentally underpin valorisation and control. The resulting second-order coding reflects empowerment through access to transactions and disempowerment through withholding information, as well as the platform's use of technology and contextual factors. Links to the analytical concepts of commodification and the resulting processes of valorisation and control were added in the coding scheme. An overview of the coding scheme can be found in Appendix 2.

## **Findings**

### *Cycles of commodification*

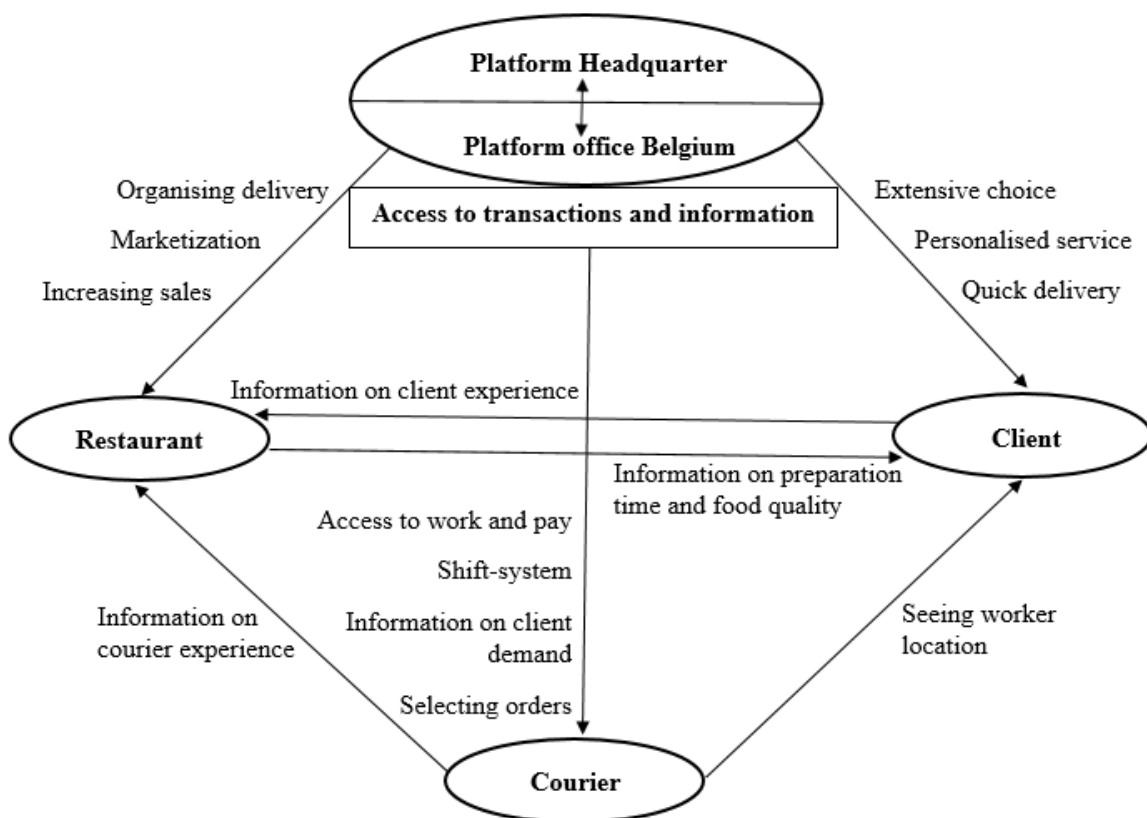
FD-Plat collects and processes vast amounts of digital data on users and couriers. Data is collected through three digital applications - one for clients, one for couriers and one for restaurants - which monitor all activities, choices, locations and contact details of these players. The data collected is processed in two ways. First, it is analysed by the platform's back-office staff, accumulating an increasing amount of information which is then used to make strategic choices and can be transferred to restaurants and clients. Second, it is fed into a self-learning algorithm which makes increasingly accurate predictions of users' and couriers' behaviour as more and more data is collected, with a view to improving delivery efficiency. Data collection and processing are at the heart of the platform's market expansion, as FD-Plat uses data to foster competition by sanctioning and rewarding users and couriers. In doing so, the platform facilitates commodification, as couriers, clients and restaurants connect with each other at

minimal transaction costs. At the same time, the ability to commodify relies on the platform's capacity to withhold information from participants. This tension indicates the way in which the platform enhances its power to control and to valorise, as both information asymmetries and the disclosure of data are used to enhance dependency on the platform, which is also a source of control. Hence, digital technology conceals the underlying labour arrangements empowering and disempowering users and couriers.

*The empowerment cycle*

As shown in the upper right-hand side of Figure 1, FD-Plat offers an extensive choice of meals to clients, deliverable quickly at any time of the day.

**Figure 1: The empowerment cycle**



The collection of client data allows the food selection to be personalised, with the choice of meals, options and special offers tailored to a client's preferences and location. One client describes FD-Plat's online menu as:

“Its psychologic beauty is overwhelming (...) Sometimes I don’t know what to eat, should I eat sushi, should I eat a pizza, and then I check all the restaurants, I have lots of choice (...) An application that is always there for you. (...) One touch gets you anything you like.” (Client 1)

This extensive choice is made possible by connecting clients with a large number of restaurants at minimal transaction costs. Following a market expansion strategy aimed at maximizing the diversity of food offered, FD-Plat added about one thousand restaurants to the client application in 2019-2020, supported by the platform’s analysis of data on client demand and restaurants within different urban areas. This is how FD-Plat fosters competition between restaurants and gains a competitive advantage over other platforms:

“By logging on to [name platform] I can get food from many different restaurants in Brussels (...) I feel like the restaurants I order from are in a much larger radius around me. This is different from other platforms which work with restaurants that are close by and where delivery is even slower” (Client 3)

In addition, the client application discloses real-time information on food preparation times in restaurants and on the courier’s location and trajectory to the client. As shown by the client → restaurant arrow in Figure 1, clients can evaluate restaurants using a five-star rating system and possibly adding a comment on the quality of the delivered meal and the timeliness of preparation. The platform processes the collected data and transfers it as ‘use value’ to clients:

“Usually, I choose food from restaurants that have 4.7 or 4.6 stars and I’ve never been disappointed by them.” (Client 3)

The platform → restaurant arrow shows that FD-Plat supports restaurants by organising the delivery service on their behalf. The platform provides restaurants that don’t have their own delivery service with the couriers, infrastructure and the equipment needed to deliver food, including food packaging and a tablet containing the restaurant application, which allows restaurants to choose the dishes and prices shown to clients as well as to manage incoming orders:

“We help with the implementation of group orders, subscription to the internet (...) We also sell special packaging that is good for the delivery process. Our vision is that restaurants should just cook the food and otherwise do nothing.” (FD-Plat management)

Restaurants that already have a delivery service in place may keep working with their own equipment and workforce, while using the FD-Plat application. As a result, restaurants gain access to a large pool of new online clients:

“I agreed to work with [name platform] because so many students order through [name platform]. I’m getting lots more orders from students now.” (Restaurant 5)

In addition, the platform processes data on client ratings and produces additional statistics, such as the ‘preparation time statistic’ or the evolution of external sales, which it transfers as ‘use-value’ to restaurants. The upper left-hand side of Figure 1 shows that FD-Plat empowers restaurants by providing targeted marketing advice based on data analyses and exchanges between the platform’s back-office staff in Belgium and the company’s corporate headquarters (see circle at the top of Figure 1). As one FD-Plat manager explained:

“For example, we tell the restaurant ‘Have you heard of this new dish, the poke bowl? It’s popular in France, and will be coming to Belgium as well. Don’t you want to include it in your menu?’” (FD-Plat management).

As illustrated by the courier → restaurant arrow in Figure 1, couriers evaluate the delivery process, based mainly on their waiting time when picking up food at a restaurant. The platform transfers this data to restaurants, helping them to optimize food preparation and courier collection and further reduce transaction costs. All these things combined allow restaurants to boost their sales, while increasing dependency on FD-Plat:

“External sales account for an extremely high share of our turnover, 22.2%, a share that is rising exponentially (...). Last year alone, this share rose by 90%” (Restaurant 4)

At the same time, as shown by the platform → courier arrow in Figure 1, FD-Plat provides couriers with access to work through an almost unrestricted recruitment system. In principle,



all adults permitted to work in Belgium can register and download the FD-Plat courier application onto their smartphones. Couriers usually access work through an online shift system, reserving timeslots for the upcoming week. Incoming orders are assigned to couriers by FD-Plat's algorithm, based on real-time data on client demand, restaurants' and couriers' availability and location. According to the management, the use of this system allows FD-Plat to:

“ensure that couriers can access work while riding, (...) guaranteeing a certain revenue per hour” (FD-Plat management)

In addition to the shift system, the courier application has a feature allowing couriers to login outside their timeslots, providing them with information on whether client demand in their delivery zone is covered. If this is not the case, they can start receiving orders from the algorithm:

“You can work anywhere, as long as there is space – you see, when this bar is green, that means there is space available in this zone (...) [Name platform] defines the limit of couriers that can work at the same time and when this limit is reached, the zone is closed, no other couriers can login.” (Courier 22)

When receiving an order, couriers can see the restaurant and – in the case of self-employed workers – the location of the client who ordered the food. Based on this information, couriers can either accept or cancel an incoming order and even have the option of cancelling orders during the delivery process, resulting in the order being automatically assigned to another courier. This system empowers couriers by providing flexibility:

“It's a decentralized system. You register remotely, you don't have to interact at all, and then you just start. (...) You can cancel as many orders as you want. You can just pick the ones that you want and that's it.” (Courier 15)

Pay for self-employed workers is calculated by the algorithm, taking into account real-time data on the street and traffic situation and hence allowing couriers to figure out how to maximize their earnings:

“It’s based on performance, if I go fast then I can do more orders, I can earn more than with a system paid by hour” (Courier 21)

### *The disempowerment cycle*

At the same time, FD-Plat’s ability to commodify restaurants’ services through an attractive online menu relies on transforming restaurants’ ‘unique’ offer into a product displayed in a standardized way for all restaurants on FD-Plat’s client application. This involves withholding some information from clients, for example when special options available in the restaurant can’t be displayed. Restaurants report disadvantages resulting from this lack of information for clients, which become particularly visible in the case of restaurants that have their own delivery service alongside FD-Plat:

“For our own clients, we don’t deliver below €50 outside the city centre. But when clients order through [name platform], they sometimes order for €15. I’ve taken this up with [name platform]. Because for €15, I don’t want to send my workers so far to deliver. I’ve complained several times: ‘Please notify the client – not below the €50’, but they don’t understand my problem.” (Restaurant 5)

Moreover, empowering couriers by letting them choose which orders they accept is only possible at the expense of clients and restaurants not knowing which courier delivers the food, obscuring relationships between users and couriers. In the case of clients, this sometimes prevents them from tipping couriers when placing an order:

“I think the tipping system is weird because you have to give it beforehand. So I think ‘I don’t know if he is going to ride quickly’, that is why I don’t tip” (Client 2).

Restaurants have to deal with delivery delays without knowing what caused the delay:

“Sometimes the dish just stays there, no-one picks it up, and in the evening we have to throw it away. And no client has called us in the meantime, so we don’t know what happened. (...) Sometimes we call [name platform], they know if that particular order has been cancelled by a courier.” (Restaurant 3)

FD-Plat’s rating and monitoring system guides client expectations regarding preparation time and the state of the food on delivery. At the same time, it generates expectations among couriers for the food to be ready when arriving at the restaurant. Thus, empowering clients and couriers goes together with restaurants facing the risk of negative ratings as well as the risk of couriers cancelling the order and leaving the restaurant if waiting times are too long:

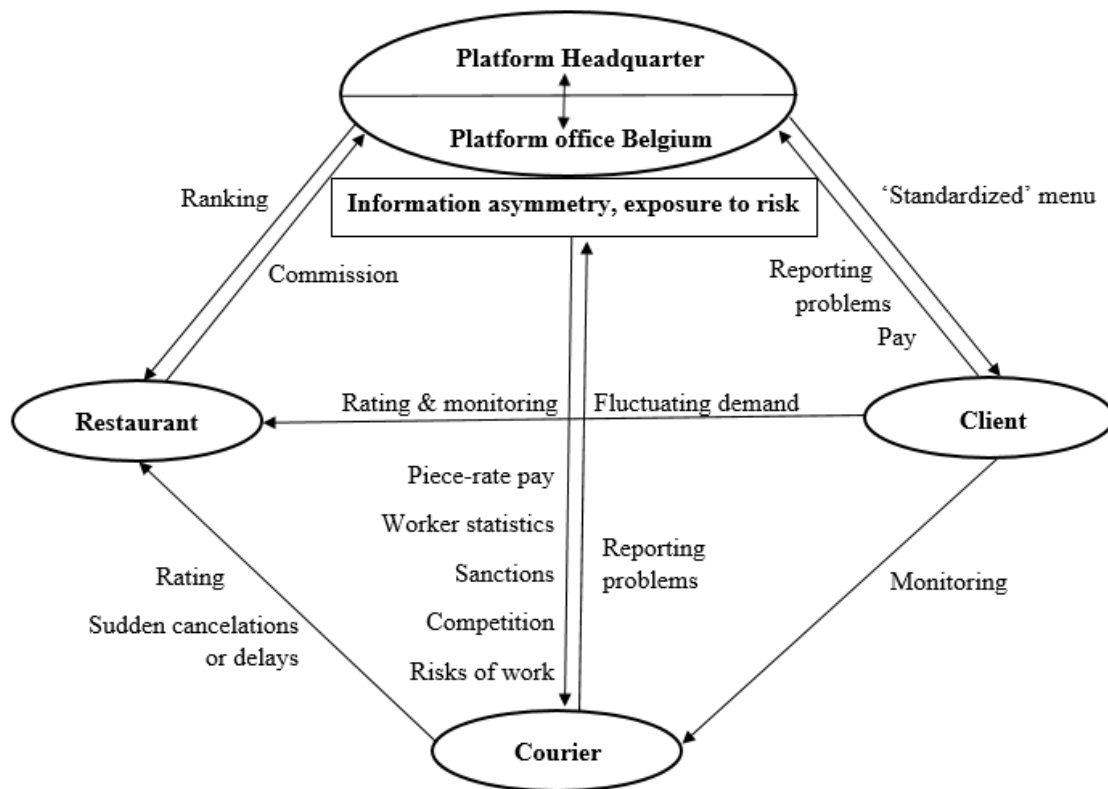
“Waiting times differ a lot between restaurants. The restaurants where I often go, for example, [name restaurant], never take long. (...) But then at [name restaurant], you always have to wait 15 minutes, it’s never ready (...) Once, I actually ended up waiting 45 minutes (...) I never go there now.” (Courier 37)

As illustrated in the upper left-hand side of Figure 2, client and courier ratings are used by FD-Plat to rank restaurants in the client application, meaning that highly-rated restaurants appear higher on the list within a certain food category. Ranking decisions are made by the platform, thereby exposing restaurants to risks and maintaining commodification by showing the ranking to clients:

“If we had a bad rating then we would no longer be on top of the list of restaurants. For example, if a client looks for spaghetti in the search engine of [name platform] and we would be lower down the list, then we would have a much lower chance of being selected by the client.” (Restaurant 4)

Moreover, ratings can impact the commission paid by restaurants on every order processed through the platform. As one platform manager told us, restaurants which receive bad ratings often see their commission increased, or the platform might even end the collaboration.

**Figure 2: The disempowerment cycle**



As illustrated by the client → restaurant arrow, the ‘on-demand’ nature of FD-Plat’s food delivery service means that demand for food delivery undergoes fluctuations, which restaurants can’t predict or monitor as FD-Plat keeps its technological system to itself:

“This varies every month. (...) Actually, at this moment, we don’t have many orders, whereas a few months ago, we had lots. (...) I really don’t know why. It also varies for the clients eating in, I don’t know if this is related.” (Restaurant 1)

This increases restaurant managers’ workload: they find themselves constantly updating their online menu, communicating with the platform and coordinating between incoming orders, clients and couriers. Some restaurants have digitalised their management systems, installing a software that automatically manages orders. Others have introduced food preparation priorities (e.g. first incoming orders, then seated clients) or hired additional staff that work at moments when clients place most orders. This contributes to maintaining restaurants’ dependency on the platform.

Information asymmetry also affects couriers' relations with FD-Plat, as they don't know how orders are assigned or what their next order or waiting time will be. Being paid per completed delivery, couriers are unable to predict their earnings:

“If you receive a lot of subsequent orders, then you can earn a lot of money, but sometimes things go very slowly (...) If you only earned €10 after three hours, then it's just not worth it. But on other days, you can make €40 in three hours and then it's worth it, so it really depends.”  
(Courier 30)

Peer-to-peer workers are further disempowered by having to accept orders without knowing the client's address, which is only provided to them once they have picked up the food at the restaurant. Even though tips are given beforehand, the platform doesn't provide them with information on whether or not they have been tipped until after the food is delivered. Peer-to-peer workers thus have to accept orders 'blindly':

“Now it's just €4.36 for everyone, regardless of the distance we have to ride. Plus, as a peer-to-peer worker, you don't see where you have to deliver the order. (...) For me that's not good, but I understand, if they wouldn't do this, then clients outside the city centre would simply not get food anymore, because we wouldn't accept the orders.” (Courier 12)

As illustrated by the courier/client → platform arrows in Figure 2, both can report delivery problems to the platform via a chat system, though both perceive this as largely ineffective as in most cases the answers given by the platform are standardized. The data collected through the chat is processed by FD-Plat to improve the delivery process, hence increasing the power of the platform vis-à-vis users and couriers.

As shown by the platform → courier arrow, ensuring a quick and timely deliveries goes together with the use of individual performance statistics for couriers, introducing competition based on data on attendance, cancellation of shifts and working during 'peak hours'. Decisions on statistics are made by a non-transparent algorithm, without courier involvement. For example, information collected from the social media community (secondary data) revealed

that couriers' statistics worsened after cancelling orders during a two-day storm. Bad statistics are sanctioned by deprioritizing access to the shift system:

“I have to register in advance for one-hour shifts, which I can choose myself. If I'm registered for two shifts from 2 to 4 am, then I have to do those (...) This shows up in the statistics, if I don't show up, I get bad statistics. And then I will be the last one able to book sessions in the next week.” (Courier 8)

The risks of this disempowerment strategy were particularly visible in 2018-2020, when FD-Plat recruited thousands of new couriers. In a situation of increased competition, couriers with bad statistics reported that they were often excluded from accessing any work at all. By recruiting under the peer-to-peer and self-employed status, the platform circumvents Belgian labour market institutions, while at the same time excluding couriers from social security. FD-Plat works with a technological insurance company that monitors workers online, only providing accident coverage when they are actually delivering food, and only covering them for personal injuries, not for any damage to their belongings:

“Recently I took a fall. My jacket was damaged, my bike was broken, but the platform didn't intervene at all. They only cover personal injuries, but not material damage, so it cost me €100 to repair my bike (...). I didn't get anything back, though I notified them through the chat system” (Courier 1)

### *Control and valorisation within labour platforms*

The cycles of empowerment and disempowerment are the result of strategic choices by the platform, which commodifies the relationships between couriers, clients and restaurants by exposing them to market exchange and simultaneously fostering information asymmetries. The joint recurrence of the empowerment and disempowerment cycles accounts for the way in which labour control unfolds as the basis for value creation and value extraction within the

platform's labour process. In particular, disempowerment by withholding information enhances the platform's power to control and to valorise.

Based on our data, value extraction within the labour process fundamentally relies on FD-Plat controlling the labour power of its couriers. This can be illustrated by the above-mentioned use of statistics. For example, couriers report that the 'peak hour' statistic induces them to ride on Fridays, Saturdays or Sundays between 19:00 and 21:00, the moments when client demand is highest:

"I get the impression that they decide for me which shifts I do, because I kind of get forced to work the busiest hours" (Courier 36)

Moreover, FD-Plat is able to control labour power through financial incentives, such as extra pay for 'double orders' or 'bonuses'. These enable further efficiency gains for the platform which makes extensive use of bonuses to recruit couriers in a situation of labour shortage (as was the case in 2018) and to incentivize couriers to work at moments when clients place most orders. Similarly, increased competition through enlarging the workforce disciplines couriers through market control, while enabling the platform to expand its services to new users. In an interview, FD-Plat management reported that the platform has two thousand workers on waiting lists. This large, 'on-demand' workforce allows the platform to extract value by efficiently adapting operations to client demand based on its analysis of digital data:

"We monitor both order demand and the supply of riders on a daily basis, with the data showing us that needs differ daily. For example, on Jan 1<sup>st</sup>, everyone is hungover and wants to order gravy food, like burgers (...) So we need a large workforce to deal with that (...)" (FD-Plat management)

Importantly, commodified labour facilitates value extraction. Through denying access to social protection, FD-Plat aims to avoid being qualified as an employer:

"We strongly believe that going for full flexibility is the way forward. Under the Belgian system, self-employed workers to some extent refuse protection. (...) In this Belgian context,

it is hard to give more protection. There is always the major risk of being qualified as an employer.” (FD-Plat management)

At the same time, the platform captures value from users. The conversion of ‘use value’ into monetized commodities through the use of digital data and algorithms enables the platform to engage in transfers with clients and restaurants. For example, the platform transfers information on restaurants’ quality and food offer to clients. Clients pay the full cost of the food and its delivery to the platform, which in turn pays the courier and the restaurant. Interviews with clients show that they consider FD-Plat’s delivery system quite expensive (a reason for some couriers not to become clients themselves):

“So I’m filling my basket with €40 worth of food and then I see that on top of that they put a € or € delivery fee! (...) I really don’t understand why this is necessary. Restaurants and [name other platform] will give you free delivery starting from a certain amount. I think that [name platform] could take over that small cost themselves.” (Client 3)

Transfers from restaurants are specified in the contract they sign with FD-Plat, which stipulates the responsibilities of both parties as well as the commission to be paid on every order processed through the platform. The commission is usually around 30% for restaurants using FD-Plat couriers, while restaurants using their own employees as couriers often pay a lower commission. As one platform manager told us, restaurants which have received marketing advice often see their commission increased, as the platform’s data processing has enabled them to boost sales. Finally, FD-Plat adjusts the commission to a restaurant’s market share to increase value capture:

“The commission might be a bit higher for smaller restaurants and a bit lower for example [name of a large restaurant], because they sell much more.” (FD-Plat management)



## **Discussion and Conclusions**

We have investigated how labour platforms commodify the relationships between workers and users by simultaneously empowering and disempowering them and how this contributes to control and valorisation. Our findings revealed the complex nature of commodification within a food delivery platform. Specifically, we have empirically illustrated how the platform fosters competition by granting clients, restaurants and workers access to transactions through an empowerment cycle. At the same time, the platform withholds information and reduces couriers' and restaurants' purported autonomy through a disempowerment cycle. These findings highlight that the platform's capacity to control and valorise is dependent on its ability to commodify by withholding information from participants. The empowerment and disempowerment cycles shed light on how platforms create dependency by establishing the rules and creating the conditions under which users and couriers connect. This dependency in turn increases the platform's power to control workers and users, while itself creating and extracting value.

The findings imply that exploring the complexity of commodification by revealing how and under which conditions empowerment and disempowerment occur is key to understanding how platforms handle valorisation. Platforms furnish the technology through which users and workers connect, hence reducing transaction costs. Users and workers use this technology to perform value-adding activities while competing among themselves, in turn generating more data that is reinserted into the production process. However, our research shows that increasing efficiency in labour allocation only tells part of the story of what happens within labour platforms. Valorisation also fundamentally relies on disempowerment through shifting risks to participants and fostering information asymmetries. In particular, the platform is able to improve its services targeting users and couriers as more data is collected, processed and withheld from those who have generated it. Thus, our analysis moves beyond assumptions

under which platforms merely ‘match’ workers and clients through technology (Harris and Krueger, 2015). We illustrate that the platform controls labour power and that this control is necessary to optimize efficiency within the delivery process.

Our analysis of the complexity of commodification has two implications for the way we theorise the platform economy. First, we show how the platform economy is able to leverage control while at the same time maintaining an illusion of autonomy (Reid-Musson *et al.*, 2020; Shapiro, 2018) by demonstrating that the empowerment of couriers and clients coincides temporally with the disempowerment of restaurants and vice-versa. We agree with the literature suggesting that algorithmic control systems take joint account of workers’ discretion over working time and of structural constraints, such as the limited availability of work (Lehdonvirta, 2018; Wood *et al.*, 2018). However, we add that elements often conceived either as ‘valuable’ (e.g. choosing working hours) or ‘disliked’ (e.g. power disparities) by workers (Malin and Chandler, 2017; Mäntymäki *et al.*, 2019) are two sides of the same coin, reflecting platforms’ strategies to exert control and achieve valorisation.

Second, our study shows that the use of a framework revealing empowerment and disempowerment as underpinning the complexity of commodification within labour platforms has analytical importance. On the one hand, it helps explain how workers and users become dependent on a platform, increasing the latter’s capacity to control and valorise. On the other hand, the framework sheds light on the ‘distinctive logic’ of intermediation in the platform economy (Langley and Leyshon, 2017), characterized by practices and mechanisms fuelling competition between and among workers and users.

Empirically, our study illustrates the added value of considering the entirety of the capital-labour relationships within labour platforms. While there is an increasing corpus of research addressing work in the platform economy, few studies have focused on platform users. We illustrate the specific role played by restaurants who become beholden to the platform,

generating a particular set of coordination and control practices. We would argue that fully understanding the implications of digital labour platforms requires examining the way in which platforms commodify the relationships between and among both users and workers.

Our argument is built upon one single platform within a single country, Belgium. This may sound limitative because of the ‘spatial’ aspect of food delivery work (Heiland, 2021). However, while confirming other research pointing to similar practices in different settings (cf. Lehdonvirta *et al.*, 2019; Mäntymäki *et al.*, 2019; Shapiro, 2020), our study indicates generalisability in the outcomes but also distinctiveness in shedding light on the tension between reducing transaction costs and fostering information asymmetries as underpinning the mechanisms of empowerment and disempowerment we uncover. Studying the cycles of empowerment and disempowerment in different institutional contexts, where workers are hired under different statuses (for example, the status of ‘hetero-organized independent workers’ in Italy) may help test our analytical framework while at the same time deepening knowledge of the commodification and valorisation strategies of labour platforms.

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## Appendix 1. Overview of interview material

<b>Courier interviews</b>					
<b>Courier</b>	<b>Gender</b>	<b>Age</b>	<b>City</b>	<b>Nationality</b>	<b>Status/ other employment</b>
Courier 1	Male	22	Leuven	Belgium	Self-employed
Courier 2	Male	20	Leuven	Belgium	Student
Courier 3	Male	19	Leuven	Belgium	Student, other job
Courier 4	Male	20	Leuven	Belgium	Student, other job
Courier 5	Male	21	Leuven	Belgium	Student
Courier 6	Female	20	Leuven	Belgium	Student
Courier 7	Male	21	Leuven	Belgium	Student
Courier 8	Male	22	Leuven	Belgium	Student
Courier 9	Male	21	Leuven	Belgium/ United States	Peer-to-peer, intern
Courier 10	Male	21	Antwerp	Belgium/ United States	Peer-to-peer
Courier 11	Male	25	Antwerp	Belgium	Student
Courier 12	Male	21	Leuven	Belgium	Peer-to-peer, student
Courier 13	Male	22	Leuven	Belgium	Student
Courier 14	Female	22	Ghent	Belgium	Student
Courier 15	Male	25	Leuven	Romania	Peer-to-peer
Courier 16	Female	31	Leuven	Romania	Peer-to-peer
Courier 17	Male	24	Leuven	Belgium	Self-employed, other job
Courier 18	Male	40	Brussels	Algeria	Peer-to-peer
Courier 19	Male	27	Brussels	Niger	Peer-to-peer, other job
Courier 20	Male	22	Brussels	Niger	Peer-to-peer, student
Courier 17 (contact round 2)	Male	25	Leuven	Belgium	Self-employed, other job
Courier 12 (contact round 1)	Male	22	Leuven	Belgium	Student-independent
Courier 18 (contact round 2)	Male	41	Brussels	Belgium	Peer-to-peer
Courier 21	Male	30	Brussels	France	Self-employed
Courier 22	Male	35	Antwerp	Portugal	Self-employed
Courier 23	Male	21	Ghent	Belgium	Peer-to-peer, student
Courier 24	Male	20	Leuven	Belgium	Peer-to-peer, student
Courier 25	Male	21	Leuven	Belgium	Peer-to-peer, student
Courier 26	Male	22	Leuven	Belgium	Student
Courier 27	Male	21	Ghent	Belgium	Student
Courier 28	Female	26	Leuven	Belgium	Employee, other job
Courier 29	Male	27	Leuven	Belgium	Employee, other job

Courier 30	Male	21	Leuven	Belgium	Student-independent, other job
Courier 31	Male	23	Leuven	Belgium	Peer-to-peer
Courier 32	Male	23	Leuven	Belgium	Peer-to-peer
Courier 33	Male	20	Leuven	Belgium	Student
Courier 34	Male	24	Leuven	Belgium	Employee, other job
Courier 35	Male	30	Leuven	Belgium	Unemployed, receives unemployment benefit
Courier 36	M	23	Brussels	Luxembourg	Peer-to-peer
Courier 37	V	26	Leuven	Belgium	Self-employed, other job

<b>Restaurant interviews</b>			
<b>Restaurant</b>	<b>Kind of restaurant</b>	<b>City</b>	<b>Platform use</b>
Restaurant 1	Brunch and healthy food	Brussels	Only FD-Plat
Restaurant 2	Coffee	Leuven	FD-Plat + other platform
Restaurant 3	Hawaiian restaurant	Leuven	Only FD-Plat
Restaurant 4	Pasta restaurant	Ghent	FD-Plat + other platform + own delivery service
Restaurant 5	Sushi restaurant	Leuven	FD-Plat + own delivery service

<b>Client interviews</b>				
<b>Client</b>	<b>Gender</b>	<b>Age</b>	<b>City</b>	<b>Platform use</b>
Client 1	W	22	Brussels	Private use (student), only FD-Plat
Client 2	M	29	Leuven	Private use (working), FD-Plat + other platform
Client 3	M	26	Brussels	Office account (working) + two other platforms (private use)

<b>Management interview</b>		
<b>Date interview</b>	<b>Managers interviewed</b>	<b>City</b>
24.01.2020	Head of Public Affairs + Chat with regional account manager	Brussels

## Appendix 2. Coding scheme

Categories		Sub-categories	Codes
<b>Valorisation</b>	<b>Commodification and control</b>		
Value extraction	Disempowerment	clients lacking information	tipping the worker problems during delivery lack of transparency and contact with the platform
		restaurants lacking information	'standardized' menu economic dependency on platform restaurant ranking waiting for the worker work intensification
		couriers lacking information	(limited) availability of orders monitoring subject to risks of work waiting time courier - contact with platform courier statistics sanctions bonuses double orders piece-rate pay
	Controlling labour power	clients accessing transactions	choosing food changing or cancelling order restaurant rating saving time and effort tracking food preparation and delivery 'treat' or special occasion
		restaurants accessing transactions	increasing sales marketization organising delivery process tracking and managing orders client rating worker rating
		couriers accessing transactions	income from work shift system no personal supervision rating the ride registration – easy process rewarding performance cancelling orders choice (not) to work combination with other activities influence over pace of work
Value creation	Empowerment		
	Use of technology	Data collection	data from client application data from restaurant application data from worker application
		Data processing	algorithmic decision-making integration local, regional, international level strategic decisions based on data
Value capture		Money transfers to the platform	client paying for delivery contract and commission
		Contextual factors	Belgian law and regulation changing payment system city expansion of the platform -adding new restaurants -increasing number of couriers

