

Power in the Age of Platformization : A Foucauldian Analysis of Deliveroo

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Résumé

Comme l'illustre le néologisme "uberisation", les nouvelles formes de travail intermédiées par les plateformes numériques suscitent de plus en plus d'inquiétudes. Si ces plateformes numériques de travail ont d'abord été perçues comme des organisations fonctionnant selon les principes du marché, des recherches récentes se sont attachées à montrer la prépondérance d'un management algorithmique. Les plateformes "de type opératrices", telles que Uber, sont de plus en plus décrites comme des outils de surveillance infaillibles. Notre recherche contribue à cette approche du management comme pratique du pouvoir (Courpasson, 2017) en se concentrant sur les perceptions et les mécanismes de réappropriation que les travailleurs des plateformes développent. Alors que la sophistication croissante des outils numériques tend à raviver le fantasme d'une organisation scientifique du travail, notre ambition est de montrer que ces espoirs sont souvent déçus. En mobilisant la microphysique du pouvoir de Foucault, nous mettons en avant (1) les raisons pour lesquelles les livreurs consentent en partie au management algorithmique dont ils font l'objet et (2) en quoi les techniques de disciplines mises en place par les plateformes n'empêchent pas des mécanismes de résistance. Afin d'enquêter les interprétations qu'élaborent les travailleurs à propos du management qui s'exerce sur eux, nous avons mené une étude de cas qualitative auprès de la plateforme idéal-typique Deliveroo. Nous avons conduits 21 entretiens semi-directifs ainsi que des observations semi-participantes de réunions de collectifs de livreurs et de l'observation en ligne de groupes Facebook de livreurs. Notre principale contribution est de montrer que les livreurs Deliveroo adhèrent en partie à la gouvernementalité de la plateforme et se sentent libres malgré le management algorithmique. D'une part, Deliveroo participe à la construction de ce qui est considéré comme "normal" par les livreurs et de l'autre, les livreurs apprécient l'autonomie permise par la plateforme en comparaison d'avec leurs emplois antérieurs souvent peu qualifiés et réalisés dans le cadre d'organisations fortement hiérarchiques. Enfin, le concept de "dispositif de pouvoir/savoir" permet également de mettre en avant l'ambivalence de la surveillance opérée par Deliveroo car, ces dispositifs étant incomplets, ils contiennent en eux des possibilités de résistance individuelle ou collective.

Mots clés : crowdwork; gig economy; digital labor; gouvernementalité; dispositif de savoir/pouvoir

Abstract

As illustrated by the neologism “uberization”, there is increasing concern over new forms of work intermediated by digital platforms. If these crowdwork platforms first have been perceived as market-like organizations, further research pointed out how management is still prevailing in algorithmic governance form. “Operator-type” platforms, such as Uber, are increasingly depicted as flawless tools of a surveillance capitalism to which crowdworkers meekly obey in fear of penalties. Our research contributes to this approach of management as a practice of power (Courpasson, 2017) in focusing on reappropriation and resistance mechanisms crowdworkers may set up. As advanced digital tools revive the temptations of scientific work organizations, our point is to show that hopes of omniscient or “panopticon-like” management are often deceived. Using Foucault's micro-physics of power, we intend to present an understanding of why crowdworkers consent to the management they are subject to and how disciplinary techniques set up by platforms do not prevent reappropriation mechanisms. We conducted a qualitative case study of the ideal-typical model Deliveroo so as to enquire interpretations crowdworkers made of their situation, coupling 21 semi-directive interviews, semi-participatory observations of riders’ meetings, online observations of riders’ Facebook groups. Our main contribution is to show Deliveroo riders partly adhere to the platform’s governmentality and report feeling free despite algorithmic management, as their experiences with the platform gives them greater autonomy compared to previous jobs done in highly hierarchical organizations. The concept of “power/knowledge” dispositif also helps us understand the ambivalence of Deliveroo’s surveillance which, as functioning through incomplete devices, contains the seeds of its individual and collective resistance.

Keywords : crowdwork; gig economy; digital labour; governmentality; power/knowledge dispositif.

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INTRODUCTION

Since the 1980's and what Davis (2016) announced as "the vanishing of corporations", the organizational landscape has endured deep transformations. The development of outsourcing and project-based jobs appeared as the first step towards digital-intermediated ways of working. As Uber now has more "driver-partners" in the United States than General Motors has employees (Davis, 2016), platform-based organizations receive growing attention in the scientific community. Yet, it is still unclear how to precisely define these new platform-based ways of working. "Crowdwork" (Cherry, 2015; Prassl and Risak, 2015; Davis, 2016) seems so far to be one of the most accurate concepts to approach this organizational innovation and could be defined as all activities, carried out online or offline, mediated by digital platforms. These activities, as diverse as riding passengers with Uber or micro-tasking on Amazon Mechanical Turk, present nevertheless several common features. Tasks are micro-defined and remunerated on a piece rate basis without any job security associated, workers coordination is carried out by algorithmic governance, and freedom or flexibility is promoted as the main advantage of getting involved. However, the concept "crowdwork" is still not widely accepted in the literature and is sometimes downsized to consider only its online aspects (Kittur and al., 2013). The "crowdwork" concept also appears similar to the "Digital Labour" (Scholz, 2017), "on-demand economy" (Cockayne, 2016) "sharing economy" (Schor and Attwood-Charles, 2017) or "gig economy" (Huws and al., 2017) ones. Along with Kenney and Zysman (2016, pp.62-63), we believe that "the proliferation of labels is simply a reflection of the recognition that platforms are already having powerful consequences for society, markets, and firms, and that we are unclear

about their dynamics and directions”. Thus, there is an urge for new research on this topic in order to think and ensure an inclusive digital society for all.

The question of power is crucial to understand what is at stake. Indeed, digital platforms set up more horizontal forms of organizations that first commentators (Sundararajan, 2015) regarded as hybrids between markets and hierarchies. However, an expanding field of literature has emerged and underlines that the coordination of crowdworkers is essentially made through algorithmic management. Facing these new forms of management, traditional concepts in organization theory such as “leadership” or “bureaucracy” have become obsolete. A conception of management as a practice of power (Courpasson, 2017) is thus returning to the forefront, with “algorithmic governance” proponents (Rosenblat and Stark, 2016) exploring the power asymmetries and disciplinary effects of digital technologies. Crowdwork platforms are increasingly depicted as flawless tools of a "surveillance capitalism" (Zuboff, 2015), reviving Taylor's greatest dreams of a Scientific Management which would rid human hazards. Yet, there is a gap in understanding of how crowdworkers perceive and respond to the platforms' management, which we intend to address using Foucault's rich contribution. While platforms - such as Uber - are increasingly depicted as pure disciplinary devices to which crowdworkers meekly obey in fear of penalties, how can we understand both consent to power and the persistence of reappropriation mechanisms?

To answer this question, we conducted a qualitative case study of the “ideal-typical” platform Deliveroo, coupling 21 interviews of crowdworkers, participatory observations of riders' meetings and non participatory observations of riders' Facebook groups. Throughout the content analysis, we confronted our empirical data with Foucault's explanatory frameworks of Power as we believe Foucault's plurality of concepts are of great use to unveil conditions of obedience to the managerial power.

Our main contribution is to highlight that, if Deliveroo indeed uses a variety of disciplinary techniques, riders do not simply obey the platform's managerial power in fear of sanctions. The surveillance operated by Deliveroo is ambivalent : while riders are maximally observed (through GPS, to-the-second timing of tasks, etc), in another respect they are maximally unobserved since a limited of managers are responsible for supervising the activity and face-to-face contacts with

Deliveroo staff are very rare. Because Deliveroo's disciplinary techniques are fallible, riders have some leeway for individual or collective reappropriation strategies. Moreover, our research shows that Deliveroo is engaged in a purposeful construction of the "normal" : riders partially embrace the platform's flexibility and efficiency rationalities, which drive them to adopt behavior consistent with Deliveroo's norms even while resisting the company overall policy. Finally, we will show how some elements of personal trajectory affect interpretations riders have of a same situation of dissatisfaction towards payments, leading them to adopt various reactions.

1. THEORETICAL BACKGROUND : ALGORITHMIC MANAGEMENT AS A DISCIPLINARY TECHNIQUE

1.1 From The Market Model To The Disciplinary Organization

New platform-mediated activities are hard to conceptualize because the term "platform" itself is confusing (Evans and Gauwer, 2016) and englobes a diversity of practices and business models. If we accept Evans and Gauwer's typology (2016, p.5), "crowdwork" refers only to transactional platforms, which aim to "facilitate transactions between different types of individuals and organizations that would otherwise have difficulty finding each other". Transactional platforms, also called "multi-sided markets", are accused of blurring borders between markets and organizations (Sunderarajan, 2016). Acquier (2017, p.93) calls them "organization-markets" and states that "with the power of digital technologies, companies such as Uber or Airbnb seem to provide the pure incarnation of the nexus-of-contracts firms", outsourcing all productive activities. Thus, as these digital platforms first have been perceived as market-like organizations, crowdworkers have been considered by national jurisdictions as being independent contractors, or "micro-entrepreneurs" in France.

As crowdwork platforms englobe a diversity of practices (Galieri, 2018), we cannot easily conclude that all of them mark the end of the firm and spotlight a new actor figure, the self-employed. Tomassetti (2016) observed how class actions filed in California precisely aim at

reevaluating this assumption that Uber and Lyft constitute “technology companies”, selling a market intermediary software to independent workers. Rather, the undertaken lawsuits seek to recognize Uber and Lyft as transportation companies and drivers as employees. Tomassetti highlights that platform companies such as Uber use this Coasian analysis in terms of transaction costs to gain legitimacy: they claim that their advanced technology lowers the costs of market exchange (searching for information, negotiating agreements, etc) and enables buyers and sellers to realize their economic interests without integrating into a firm.

At first sight, this narrative seems appealing for three reasons: (1) the metaphor of the “platform” evokes a neutral software that gives the control of drivers’ work to consumers; (2) algorithmic programming may be perceived as inscrutable tools which improve, without any human agency, the efficiency of invisible market mechanisms and (3) the spatially dispersed services that platform companies showcase tend to obscure the collective nature of production. “As a result, [Tomassetti concludes, p.6], we are more ready to believe that Uber intermediates a market, but a restaurant does not intermediate a market between buyers of hospitality services (diners) and sellers (waiters)”. Yet, Tomassetti (2016) underscores that Uber does not make the firm obsolete as the company operates within a certain centralized coordination through its application features and obstructs price negotiations or the drivers competition over customers. If we cannot explain the efficiency of Uber’s transportation service neither by spontaneous adjustments of behaviors in a free market, nor by direct hierarchical control, how can we characterize the new forms of work organization it sets up?

A growing literature on the “algorithmic management” (Lee and al., 2015; Glöss and al., 2016; Rosenblat and Stark, 2016) has emerged since 2015 and attempts to depict how digital platforms coordinate crowdworkers’ activities, although they are mainly focused on the example of Uber. This literature builds on Aneesh’s (2009) pioneer work on “algocracy” as a new governance system in which algorithms coordinate labor practice in the absence of direct bureaucratic control. Rosenblat and Stark (2016, p.3759) showed how “through tools such as dynamic, algorithmic pricing and a number of other elements of the Uber application’s design, Uber is empowered via information and power asymmetries to effect conditions of soft control, affective

labor, and gamified patterns of worker engagement on its drivers”. This new literature on “algorithmic management” finds synergies with several court decisions which stated for requalification of platform workers in employment contracts as this was recently the case, in France (November 2018), for a former Take Eat Easy rider.

Because the “algocracy” showcases digital tools which operate on a broad scale and in a real time setting, some commentators would describe the platforms as sprawling machines which are “crowdfleecing” (Scholz, 2017) workers for the benefit of an elite, or as invincible devices of a broader “surveillance capitalism” (Zuboff, 2015; 2019). In other words, digital platforms revive the phantasm of a flawless remote surveillance which tracks, quantifies and controls workers’ activities in an even more effective manner than Taylor’s Scientific Management. This emphasis on the disciplinary dimension of crowdwork platforms prompt us to wonder: do Uber-like platforms constitute new “electronic panopticons” (Lyon, 1993), in which workers have no choice but to obey its diffuse surveillance ?

1.2 Towards a Foucauldian Approach of Power

The “electronic panopticon” is an appealing metaphor, backed by empirical studies on algorithmic management which focused on the power effects of technologies. Bentham’s metaphor of the Panopticon was taken up by Foucault in *Discipline and Punish* (1975) in order to analyze the functioning of the modern penitentiary system. As it is aimed at training “docile bodies”, the Panopticon would be the prime disciplinary mechanism. Foucault sums up its effects as follows (1975, p.202) : “to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power. So to arrange things that the surveillance is permanent in its effects, even if it is discontinuous in its action; that the perfection of power should tend to render its actual exercise unnecessary; that this architectural apparatus should be a machine for creating and sustaining a power relation independent of the person who exercises it; in short, that the inmates should be caught up in a power situation of which they are themselves the bearers”. Three principles constitute the innovative mechanism of the panopticon : a diffuse

surveillance of atomized individuals, associated with a penalty system so as to encourage self-controlling.

Algorithmic management proponents then showcased how atomized crowdworkers conform themselves to gamified elements and diffuse surveillance, echoing Supiot's (2015) observations that individual "programming" is the new subordination. Supiot (2015) uses the term "programming" to illustrate how, in an organization where the central power is no longer easily localizable, individuals have to regulate their behaviors according to the different signals that they receive. We believe that Foucault's thinking is of great use to understand power mechanisms in non-bureaucratic organizations like crowdwork platforms as his main insights were that power cannot be possessed nor found in a specific location, but constitutes an ubiquitous flow which is exerted during every social interactions.

The "algorithmic management" framework has so far insufficiently explored how crowdworkers perceive and respond to the disciplinary power they are subject to. In the same way that Bain and Taylor (2000) emphasized call center's workers resistance to "electronic panopticon" tools, it is unlikely that crowdworkers will obey at the beck and call of Uber-like platforms. Bain and Taylor (2000) displayed several flaws in what was described by Fernie and Metcalf (1998) as a Panopticon-like system. Because a successful control needs intensive human time and energy that are hard to find in companies, and because experienced workers proved able to anticipate their supervisory controls, Bain and Taylor concluded that disciplinary managerial power cannot be perfect. Moreover, the call center's monitored and atomized work environment was not sufficient to prevent workers' collective resistance. While call center workers are subject to both tight software-surveillance and face-to-face surveillance, it might be unsurprising a priori that platform workers who have few face-to-face contacts with Deliveroo 's staff can resist at least as much. Not only the metaphor of the Panopticon might be too totalitarian (Brivot and Gendron, 2011), but it also distracts us from recognizing crowdworkers might adhere to a certain extent to their subjugation. Hall and Krueger's (2015) empirical work on and for Uber was reviewed critically (Berg and Johnston, 2018) because of serious methodological problems, but surely their

assertion that flexibility is appealing needs further studies and a serious consideration that crowdworkers see benefits to engaging in their activities.

In the current paper, we intend to use the full range of Foucauldian notions related to the concept of Power in order to better understand the stakes of the situation of crowdworkers. Even though Foucault has been much read in organization science, we believe his thinking is still very topical as his cross-cutting question was to explore, in many different areas, the conditions of obedience to Power. If a reductionist lecture of his work is generally established (Starkey in Hatchuel, 2005), using mainly the concept of Panopticon, we aim here to draw on the plurality of explanatory frameworks Foucault developed (Le Texier, 2011). How can Foucault's thinking help us understand the workers' persisting reappropriation and resistance mechanisms to real-time algorithmical management operated in crowdwork platforms?

The metaphor of the Panopticon itself does not honour Foucault's rich insights on what he himself defined as disciplinary techniques. Foucault viewed the Panopticon as a "power/knowledge" dispositif, as its efficiency relies on information asymmetries. In further comments, Foucault (1976) recognizes the incomplete nature of "power/knowledge" dispositifs: knowledge obtained through the observation of workers' activity is incomplete because it results from simplifications. Thus, instruments of power built from this knowledge are also incomplete, which give actors scope to operate. The concept of "knowledge-power" dispositif is then two-sided (Bert, 2011): Power is not solely seen as a pure constraint ("power over") but as something productive too. Power is also the power "to" produce knowledge on subjects so as to better normalize behaviors, or to create alternative knowledge in order to exploit the loopholes of the dispositif.

Power produces knowledge which can transform itself into "truths". This way, power also assumes the form of incentive mechanisms which usually do not act by direct disciplinary constraint. Through the concept of governmentality, Foucault (2004) points out how power tends to structure the individual's field of action, in which subjects act freely and therefore may engage in counter-behaviors. In order to prevent deviations from the norm, Power tries to naturalize some phenomena to ensure they won't be discussed by individuals, individuals who in turn are

shaped by subjectivation strategies. The focus here is on mechanisms of consent to Power, on voluntary obedience to norms. Individuals are no longer regarded as mere effects of disciplinary techniques, although coercion still is a mean of imposing norms. To summarize, governing is “a versatile equilibrium, with complementarity and conflicts between techniques which assure coercion and processes through which the self is constructed or modified by himself” (Foucault, 1993, p.204).

2. METHODS: A QUALITATIVE CASE STUDY

The aim of our research is to develop an understanding of how workers perceive and respond to the management practices set up by crowdwork platforms. We chose to investigate operator-type platforms (Galiere, 2018) as they attract the harshest criticisms, as we’ve exposed it before with the analyses scholars made of Uber. These platforms indeed set up the most developed management practices and thus are suspected to present strong power asymmetries. We selected the company Deliveroo as a case study, both to extend the analysis outside of the sole example of Uber and because Deliveroo became one of the biggest crowdwork platform, with 50 000 riders in the world¹. Although we conducted a single case study focused on Deliveroo riders, we pretend our analyses can be generalized to most food delivery platforms. Indeed, the large majority of the interviewed riders (as shown on Figure 1) simultaneously work on multiple food delivery platforms, and even more have worked with other food delivery platforms in the past. The data we collected also gives us information about Uber Eats, Foodora, Stuart and former Take Eat Easy platforms, which operate according to almost the same principles. To become more nuanced and subtle, we chose to restrict our detailed analysis on Deliveroo, as there are still minor differences in the algorithmic management set up by food delivery platforms. For instance, one key feature on Deliveroo is the measurement of three performance metrics (punctuality, reliability and participation during peak activity) which are correlated with the ability to book working shifts, while Uber Eats is more focused on ratings given by consumers as

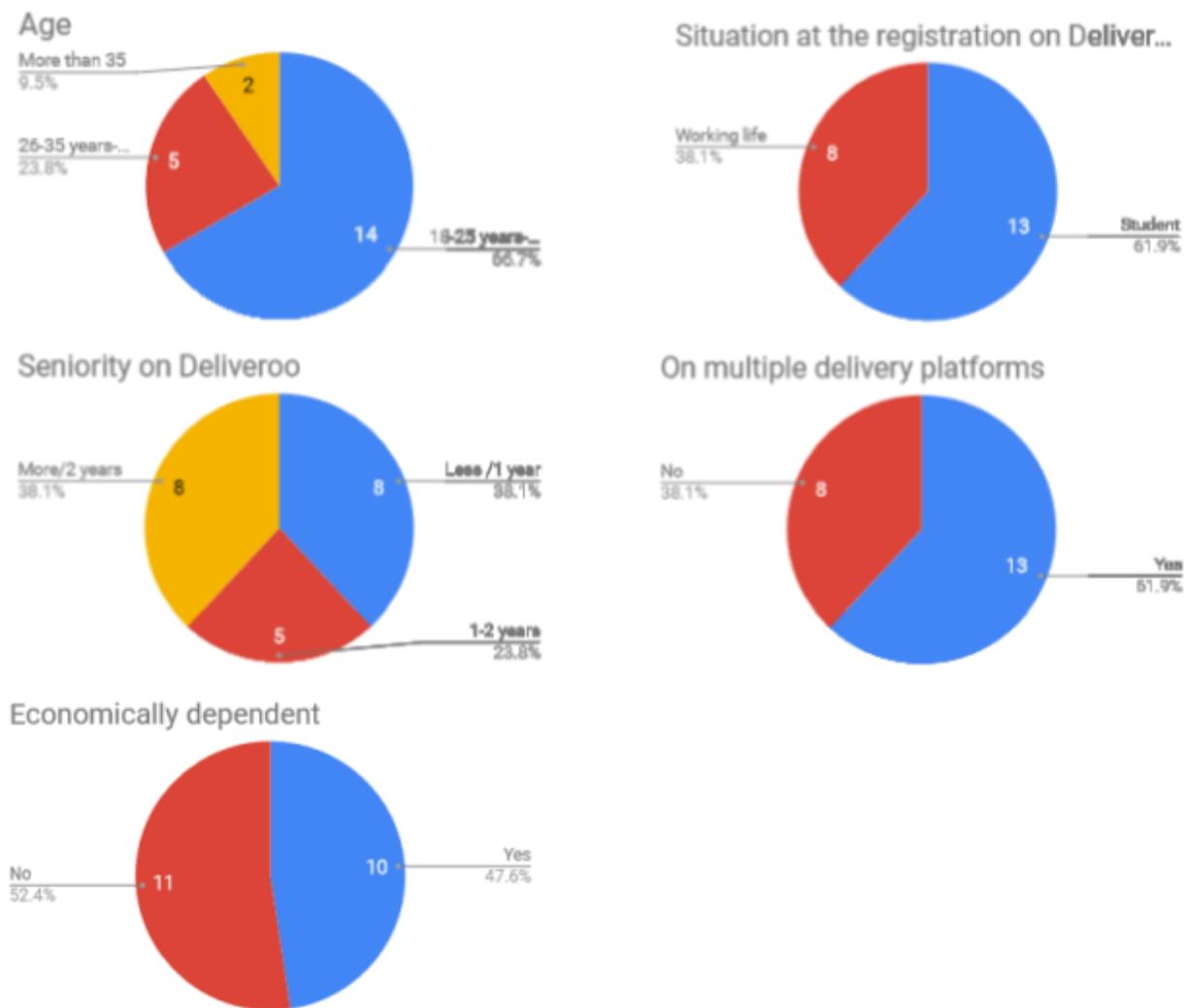
well as cancellation rates which are automatically sanctioned by temporary deactivation of riders' accounts.

Our epistemological framework is interpretative (Geertz, 1973), which means we consider reality is a social construct built by intentional actions and interactions of a diversity of actors. In accordance with this epistemology, we intend through our empirical study to comprehend the social facts and meanings attached to them, in a particular historical context. We then developed a qualitative method based on an exploratory inductive case study (Avenier and Thomas, 2015), adapted for the production of new ideas. In our quest for "truth-adequacy" (Allard-Poesi and Perret, 2014), we sought to build knowledge that appears credible and consistent with the actors' lived experience. To obtain "thick descriptions" (Geertz, 1973), we realized 21 semi-directive interviews with Deliveroo riders with an average length of one hour, that we coupled with semi-participant observations of riders' meetings, online observations of riders' Facebook groups and documentary sources in a secondary support. Through our methods of data collection and content analysis, we tried to focus on the motivations, intentions and significance Deliveroo workers attached to their activity. For instance, our interviews usually started by asking riders to show us the Riders' application and to comment every tabs and features and then to detail their last day of work. We intended to ensure Sandberg's (2005) reliability and validity criteria. In order to avoid "biased subjectivity", we made sure to note our feelings after each interviews or observations and asked multiple follow-up questions during them so as to prevent misinterpretations. We also counted recurrent interpretations and paid particular attention to what seemed surprising or contradictory to us, for instance when riders expressed feeling like entrepreneurs despite their involvement in collective actions against Deliveroo. One limit of our study is that we mainly rely on declarative discourses, which does not provide enough attention to discrepancies between people say they do and what they actually do.

The data collection period extended from April to November 2018 (8 months), so as to gain the ability to enquire topical issues: application changes, riders meetings, social movements, etc. This way, we could collect a variety of perceptions on these points. The recruitment process of interviewees was made for diversifying their profiles (especially according to their seniority on

Deliveroo, cf Figure 1 below): to that end, we approached them during riders meetings, via social networks (Facebook, LinkedIn) and through the “snowball” method. We also paid attention to interview “atypical” profiles, for instance: one rider who appeared in a Deliveroo advertisement, one unionist who became a public figure, one rider who created a renowned Facebook groupe, one former Deliveroo rider who created a delivery cooperative, etc.

Figure 1. Main characteristics of our 21 interviewees sampling



3. MAIN FINDINGS: ADHERING TO THE HYPER-MERITOCRATIC RATIONALITY AND RESISTING UNILATERAL DECISIONS

3.1 Deliveroo's Riders Application as a Fallible Disciplinary Technique

During his “genealogical period”, Foucault focused his interest in defining what disciplinary techniques are. We have seen that disciplinary techniques are aimed to constrain the bodies of individuals through an unflinching mechanism that Foucault (1975) named - after Bentham - Panopticon. We can summarize the Panopticon apparatus as follows : atomized individuals are being monitored in a diffuse way and subjected to sanctions, which contribute to internalizing behavior constraints. There is a great temptation to compare crowdwork platforms such as Deliveroo with the Panopticon mechanism. Indeed, we find the principle of workers atomization: each rider has their own personal application and is assigned individual missions, although he might meet other riders in the streets or in front of restaurants while waiting for commands. Plus, the application sets up a diffuse surveillance : the delivery mission is divided into micro-tasks which are assessed with quantitative performance measures, but only part of these measurements are displayed in a transparent manner to the riders. Furthermore, the managerial power tries to build knowledge on its subjects so that Deliveroo riders will be more easily manageable, with a co-existence between transparent forms of surveillance and of more opaque and uncertain forms, where it isn't known who is watching and who is watched. Officially, Deliveroo evaluates its riders according to 3 performance metrics that everyone can see on the app (“examination” type of surveillance in a Foucauldian language): attendance rate, late cancellations and participation in activity peaks. These measures are associated with a gamified system of rewards/sanctions, conditioning the possibility of reserving work shifts in advance. These statistics constitute management tools which nudge riders to work in a way that it ensures the proper functioning of the delivery service, as desired by Deliveroo's central services. Lastly, the feeling of diffuse surveillance is reinforced as the relationship between riders and Deliveroo officials is highly asymmetrical : it is difficult for riders to reach the management team, while the management

team benefit from a full range of possibilities to contact a worker (via phone, e-mail, mail or social networks).

We summarized in Table 2 the main features of the Deliveroo platform that evoke a disciplinary technique. Still, crowdwork platforms such as Deliveroo rather appear as “power/knowledge dispositifs” than “electronic Panopticons”, as their disciplinary components present many flaws :

- The nature of the delivery job renders the atomization of individuals ineffective in reality as riders often meet and discuss with each other while waiting for orders. These informal conversations might result in a sense of community, fostering the creation of numerous ways of exchanging on their activity (e.g. on social networks). J., 49 years-old, 3 years experience on multiple food delivery platforms, relates how this informal sociability between riders lead to the organization of the first collective actions, before Take Eat Easy’s bankruptcy:

“We are all waiting at [X] square, we are waiting for the starting gun and, yes, while we wait for the first commands, which sometimes are slow to arrive, we talk ! Very soon... At first, we chit chat, we laugh you know. “Yeah, yesterday I delivered food to a girl, oh la la, she was in a bathrobe ! She was wearing shorts !”. Here are the classic anecdotes. “I took a header”, stuff like that. And then, as the weeks go by, I observe that conversations are changing in the clan, actually. Obviously, you still have these anecdotes but, very soon, we noticed some new bugs in the application. Plus, long waiting times happen more often while it used to be very fast : we arrive at the restaurant, we leave. [...] So the situation becomes a little tense and, here, conversations change. Until Take Eat Easy, one day, decides to delete the guaranteed minimum races, the 5 races per shift. So, there, general outcry ! [...] We created a small Facebook group called “The druids of the highlands”. [Laughs] On this Facebook group, here as well, conversations were initially quite funky but it changed quickly and they became rather militant. I keep on following that and I see that the guaranteed minimums all disappear. Now, the guys want to make a petition and to negotiate at the office”.

- Another flaw is that the produced knowledge on workers is incomplete, hence Deliveroo's managerial and sanctioning power is fallible. Deliveroo disposes of both numerous data on each rider's performance and power to sanction them, as commercial contracts between riders and the company can be cancelled at any time and without specific justification. During our research, we interviewed several riders who received termination letters. However, Deliveroo's sanctioning power is strongly limited by lack of operational managers : senior riders elaborate an individual tacit knowledge about the application flaws, leading to diversion and circumvention strategies. For example, some experienced riders found that some performance statistics may weigh more than others, although this is not explicit on the application. Thus, some riders pick and choose which behaviours to adopt in order to avoid being spotted by Deliveroo's central managers. V., 25 years-old, 2 years experience on Deliveroo, has many tips on how to exploit the platform's flaws and, in order to continue diverting certain features of the platform, he makes sure to display an excellent acceptance rate as it seems to him that this is the most controlled indicator :

“The weekend [when there are guaranteed minimums] I have a technique to be connected on the app without getting orders. [...] Basically, the ambassadors have access to the "OS": Out of Service. When they have an info shift, they ask the support service... You say, "Hi, I have an info shift, can you double OS me please?". Basically, I don't have access to it but I tried once to ask them and for me it works, so I keep on doing it! That means that I am connected, as if I was working, except that I do not get orders! [...] At the moment, I have rotten stats and since I wanted to stay in the shadows so as not to get caught because of the double OS, I decided to accept every orders to get good acceptance rates and ... And so that I can still sneak quietly, you know. Since they mainly look at it, at the acceptance rate, and once you have bad acceptance rates they start digging a little bit more”.

Table 2.: Features of Deliveroo as a disciplinary technique and their deficiencies

Key features	Examples from our interviews	Significant deficiencies and associated risks
<p>Atomization of individuals :</p> <p>Riders need to work from their side if they want to maximize the number of potential deliveries</p>	<p>“For instance, if I wait at [X] square, as at [X] there are very few riders waiting there, I have orders around [X]. I have very few orders beyond [X]. So, if you ever have a lot of riders in the same place, I think that you reduce your chances of having orders”.</p> <p>The interviewer : “When you log in in the city center, do you go to the epicentre or do you get closer to one restaurant in particular ?”</p> <p>The interviewee : “Ah, yeah yeah. Well, I don’t stay with the riders in [Y] square. Ok, fine, you talk with them, it’s nice and everything, but if you want money... You’d better not stay there”.</p>	<p>Riders meet while waiting for orders: at the epicenter or in front of restaurants</p> <p>Riders create social networks groups to discuss their activity : Facebook Private Groups, Whatsapp or Telegram group messaging</p> <p>Risks : Politicisation of conversations and exchanges on work conditions which may lead to the organization of collective actions</p>
<p>Knowledge creation on individuals :</p> <p>Measure of 3 official performance metrics which condition the possibility of booking working shifts in advance</p>	<p>“Before, it was first come, first served. They were giving all the shifts on Tuesdays at 5:45 pm for everyone. Now, there is some kind of fidelity system. That is to say that there are three statistics: acceptance rate, your presence at the shifts you booked and your participation at the activity peaks. From these statistics, you have a score. They have it, you don’t have it. And this score gives you access to time slots: the first is at 11am on Monday, the second is at 3pm and the third is at 5pm. Me, I did a long break, so I’m at 5pm Monday. In fact, there are very few shifts left. And to have more ... For now I have a job, but in the future I will need to work on Deliveroo more regularly, and for that I must be present the weekend between 8pm and 10pm [the activity peaks]”</p>	<p>Deliveroo’s managerial team is small compared to the large number of riders: surveillance is imperfect and few sanctions are applied compared to other delivery platforms, which gives workers playing freedom.</p> <p>Riders, in an individual or collective way, build an alternative knowledge in order to reduce power asymmetries : they evaluate, by intuition or experience, what is tightly or loosely controlled, what are the flaws of the application, etc.</p> <p>Risks : Theories developed by riders about what is effectively controlled may lead to diversion and circumvention strategies and reduce the effectiveness of Deliveroo services (delays, “no shows”, sabotage...)</p>
<p>Diffuse surveillance :</p> <p>Real-time geo-tracking, segmentation of activity in micro-tasks and co-existence between transparent and opaque forms of surveillance</p>	<p>“You have a notification sound so you open the app and then, on Deliveroo, it’s like a slide to pick up on the phone. So you slide to accept it. And then it tells you “go to such restaurant”. Quite simply, you go there. When you arrive, you confirm that you arrived by sliding, again. It tells you what the order number is. You enter the restaurant [...]. You tell them: ok, I have this order number. [...] Then once you get the order, you load it, you slide again on the app to say that you got it. It sends you the delivery address of the customer. Then, you go there. If you do not know where it is, you can open Google Map or any GPS. Once arrived, you slide to say that you arrived, you go to the customer, you slide to say that you delivered the food. [Laughs] That’s going to be changed apparently. There will be an update, you will only have to slide once when you are at the restaurant and then at the customer’s, that’s good. Because now, on Deliveroo, I feel like I spend my time confirming everything I do. [Laughs, then takes a voice deliberately foolish] I confirm that I put a pedal stroke to the left, I confirm that I put a pedal stroke right ... [laughs]”.</p> <p>The interviewer: “Do you have a specific time for sliding ?”</p> <p>The interviewee: “On Deliveroo, I don’t think so. But, it would seem, some riders say, that you can be unassigned from an order if you don’t move for a while after accepting it. For example, you’re at [Y] Place, you’re chatting. You get an order, you accept it. You stay 5 minutes to end your discussion and after 5 minutes you may no longer have the order to collect”.</p>	<p>Deliveroo’s managerial team is small compared to the large number of riders: surveillance is imperfect and few sanctions are applied compared to other delivery platforms, which gives workers playing freedom.</p> <p>Riders, in an individual or collective way, build an alternative knowledge in order to reduce power asymmetries : they evaluate, by intuition or experience, what is tightly or loosely controlled, what are the flaws of the application, etc.</p> <p>Risks : Theories developed by riders about what is effectively controlled may lead to diversion and circumvention strategies and reduce the effectiveness of Deliveroo services (delays, “no shows”, sabotage...)</p>

3.2 When Crowdworkers Adhere to the Rules of the Game

In a second important part of his thinking, Foucault explored - in what he called “biopolitics - new ways of exercising power through incentives. Through the concept of governmentality, we have seen that Foucault (2004) focused his attention on the creative dimension of Power. Power in neoliberalism is no longer seen as pure constraint (“power over”), but also as the power “to” produce a new individual who would be an “entrepreneur of the self”. Mechanisms of subjectification would indeed structure the individual’s field of actions in naturalizing some phenomena, which wouldn’t be discussed by individuals. The “entrepreneur of the self” would then voluntarily obey to norms of competition or meritocracy, and try to improve his “human capital”. To summarize, governing is “a versatile equilibrium, with complementarity and conflicts between techniques which assure coercion and processes through which the self is constructed or modified by himself” (Foucault, 1993, p.204).

The concept of governmentality enables us to understand why many of the riders may not only obey to disciplinary mechanisms but also voluntarily consent to Deliveroo’s power. Indeed, thinking in terms of disciplinary techniques seems insufficient to us as we observed that 10 out of 21 of our interviewees chose to register on Deliveroo following advice from friends. If Deliveroo is a constraining Panopticon, we are left to wonder why riders would recommend to their friends to sign up and work on Deliveroo. Plus, the Public First’s (2018) survey for Deliveroo indicates that 84% of riders declare that they were happy to work on the platform. The first hypothesis would be that riders are attracted by the payment opportunities, as Ravenelle (2017) showed crowdworkers reject the collaborative and community ideals and mainly see themselves as being in search of remuneration. This hypothesis seems valid and our qualitative enquiry consolidates it : our interviewees unanimously reported that the pursuit of remuneration was their first motivation to register on food delivery platforms. Yet, we think this explanation is unsatisfactory as crowdwork is commonly described as offering precarious revenues (Cherry, 2015 ; Schor, 2016). As far as food delivery platforms are concerned, Jan (2018) underlines a

paradox : despite precarity and the fragility of the independent status which exacerbates power asymmetries, the interviewed riders report some satisfaction regarding their activity. We assume that riders consent to the management operated by Deliveroo because (1) they gain satisfaction from the flexibility Deliveroo enables compared to other low-skilled jobs and (2) they adhere to the “hyper-meritocratic” vision promoted by the company.

Even though riders might not all “embrace the entrepreneurial ethos” (Ravenelle, 2017), we observed that they were prompt to endorse the platform’s narrative of flexibility: half of our interviewees spontaneously brought forward the argument of flexibility to explain why they decided to sign up to Deliveroo, and 14 out of 21 mentioned the sense of freedom as the main reason when explaining why they appreciate their activity. Despite constraints (chances of working conditioned by performance indicators) and incentives (“exceptional pricing conditions” nudging riders to work on precise evenings), the interviewed riders feel free to work whenever they wish and without being subject to any form of management. Along with Jan (2018), we believe that riders appreciate this relative freedom because of their personal and professional trajectory. As most riders have experienced other low-skilled and low-paying jobs, working on Deliveroo appear as a more valuable option : riding on Deliveroo gives good pay and flexibility, and this activity benefits from a certain prestige related to sports (especially among young men). Table 3 shows the multiple forms flexibility riders appreciate on Deliveroo. Because of their personal trajectory, Deliveroo seems emancipating to most riders despite the precariousness of their legal status. This helps us to understand why Deliveroo riders are mostly suspicious about requalification in an employment contract as they see risks of reduced autonomy, especially regarding their working schedules.

Table 3. The Different Facets of Flexibility appreciated by Deliveroo riders

FACETS OF FLEXIBILITY	VERBATIMS TAKEN FROM OUR INTERVIEWS
Delivery activity as being accessible to everyone :	A. [24 years-old, Master student in Biology, 5 months experience on Deliveroo] : <i>“I knew it was working well in [my</i>

<p>limited selection process, no skill requirements</p>	<p><i>city], I often saw them riding around town and I asked myself, why not me ? I made inquiries and I was attracted by the fact that it was quite free, you don't have a boss on your back, you know. Registration was extremely quick. Actually, I preferred to register on Deliveroo than to send a résumé 8 months in advance without necessarily have an answer, or have negative answers... Actually, I think that lacks of flexibility, while here, on Deliveroo, within 3 weeks it was all over and I was already on the roads".</i></p>
<p>Increased control over time schedules : either to gain free time or to meet personal obligations</p>	<p>E. [34 years-old, freelancing in web design and photography, part-time salesman in a bike shop and with 2 years of experience as a rider] : <i>"Given that I have freelance contracts, sometimes I have to meet clients... When you have an employment contract, you can't tell your boss: 'Ah, this wednesday I won't work !' Deliveroo enables you to do it. That's why we say it's disguised employment: you're not really an employee but you're neither really a freelancer, you're somewhere in-between. It's really in-between, it's a new status that enables you to manage your working time but, let's not fool around, you're not an entrepreneur either !"</i></p>
<p>Absence of managers in everyday work</p>	<p>The interviewer : <i>"How would you describe your experience working on Deliveroo, in 3 words ?"</i> O. [25 years-old, Master student in Geography, 3 months experience on Deliveroo] : <i>"So... I won't say bike ! [Laughs] I would say money, sport and... Freedom. That is to say that you make money while being your own boss. You don't want to work, you don't work. And you ride around, and you work out all day long, and you get paid for that". [...]</i> The interviewer : <i>"Did you do other jobs before ?"</i> O. : <i>"Yeah, I did a lot of things... Receptionist, motorcycle delivery... As an employee, for all these... I worked in restaurant kitchens, I worked at [the supermarket], I did shelving..."</i> The interviewer : <i>"If you compare all the jobs you did, which one do you prefer?"</i> O. : <i>"This one! Ah, yes! I am happy to do it! We don't have any boss, we chose when we want to work, we go back home when we want to, you know!"</i></p>

In a further step, we observed that some of the application's features have been gradually naturalized and now provide frameworks for autonomous behaviors. For instance, performance

statistics and piece rate remunerations are nowadays rarely called into question, even voluntary supported by the newest workers as the performance system defines and rewards good workers, playing on the self-esteem of Deliveroo riders. In addition, piece rate remuneration echoes a rationality of competition and efficiency in which many relate to, pushing riders to elaborate exciting individual strategies to maximize their delivery rate per hour and thus their revenues. Because they believe their earnings are directly correlated to their sports performance on the roads, Deliveroo bikers might adopt risk-taking behaviours which are officially disapproved by the company and pose public health problems: running red lights or stop signs, etc. To optimize their earnings per hour, riders developed a fear of “dead time” which sometimes lead them to report to Deliveroo restaurants in which there are frequent waiting times, or to adapt their private life to their work, for example by only resting during the low activity hours. In general, any impediment is experienced with impatience as it is synonymous with unpaid time, as it is illustrated by the following quote of D., 29 years-old and Deliveroo rider since less than one year:

“From 7pm to 9pm, I’m in the city center, I log in and I get a ‘double order’ right away. That means that I get two orders to get in the same restaurant for two customers who live far from each other. I go to the restaurant, I get them, ok, very well. Except that the first customer indicated a wrong delivery address: she indicated that she lived 500m away from the restaurant but in truth she was far, a 12km trip. I don’t ride 12 km for 5€! So I send a message to the support service but then, the time they understand the situation, the time they answer, etc... The time they accept to unassign the order, half an hour already passed! And these idiots, when I tell you that they don’t understand anything... You see, I told them, well, it’s on this order that the customer indicated a wrong address, etc. They unassigned me from the wrong order! So, on the second order I was supposed to deliver! I had to spend time to tell them that I still have the other order in my bag, I still can deliver it, etc. They end up telling me [takes a silly voice]: “Well, no, it’s too late, you have to give it back to the restaurant because we assigned someone else to deliver it!”. So now it is 8pm, I had 0 order delivered, on a Sunday evening, you see! 0€ during rush

hour, all I had left to do is to blow my head off! So the next hour I just speeded from 8pm to 9pm, I delivered 5 orders. You earn 25€ per hour then you're happy! [Laughs]"

The interviewer: *"When you say that you speeded... You can't tell how many orders you'll get, do you ? But you try to speed for being marked as available on the app?"*

D.: *"Yeah, that's the exact thing. You can't tell how many orders you will get but you know that on weekends you have a lot of orders. So, a priori, you know that the faster you ride, the faster you deliver your order and the faster you'll get another one".*

4. DISCUSSION AND CONCLUSION: DELIVEROO AND THE CRITIQUE OF SCIENTIFIC MANAGEMENT DREAMS

In this paper, we tried to enquire the perceptions and the reactions that crowdworkers may have to the algorithmic management that they are subject to. The idea was not only to investigate the disciplinary effects of algorithmic management but also to understand how crowdworkers may reappropriate or resist it. To that end, we used Foucault's thinking to lighten the "ideal-typical" example of Deliveroo.

Our main goal was to critically examine observations that digital platforms may renew, through their sophisticated algorithms, forms of scientific management inspired by Taylorism (Acquier, 2017) which would get rid of human hazards. Crowdwork platforms such as Deliveroo have remote surveillance and performance measurement tools, as well as provide a strict separation between conceptual and practical workers and do wish for totally mechanized organizations where drones may replace bikers (Price, 2015). Yet, as much as algorithmic management revives the dreams of scientific organizational control, crowdwork platforms showcase the figure of the independent worker. Perhaps more surprising is that, all along our data collection period, Deliveroo riders claimed that they did not want to be salaried employees, making the platforms' narrative "be your own boss" their own. Our research highlights riders do not simply obey Deliveroo's managerial power in fear of sanctions associated with diffuse surveillance.

Deliveroo is also engaged in a purposeful construction of the “normal” : riders partially embrace the platform’s flexibility and efficiency rationalities, which drive them to adopt behavior consistent with Deliveroo’s norms even while resisting the company overall policy. Furthermore, Deliveroo’s disciplinary techniques are fallible, then riders may elaborate on individual or collective resistance strategies when facing prescriptions they consider to be illegitimate, in order to counteract power asymmetries. Collective strategies appear as always being fragile as riders are more likely to opt for individual reactions (neglect, exit, apathy). However, these points illustrate that hopes for perfect scientific management are always deceived as, even in the most dominated institutions (Goffman, 1961), social actors still have some leeway that may disrupt the organization.

However, just because we questioned the possibility for operator-type platforms to constitute Panopticons does not mean we overlooked the strong asymmetrical power relationships that prevail. If Deliveroo riders are free to choose whenever they sell their labour, freedoms are strongly limited due to the many nudging features that are opaque, pricing and working conditions are not negotiable and possibilities of working are attributed to riders’ performance rankings. Feelings of freedom seem to be relative to previous work experiences riders had, as it is both reported by Deliveroo-sponsored surveys (Public First, 2018) and academic research (Jan, 2018). The flexibility and autonomy of Deliveroo are appreciated because riders formerly experienced executing jobs in highly hierarchical organizations, leading them to think employee status is incompatible with schedule flexibility. Compared to other odd jobs, riding with Deliveroo appears as a more valued option. Still, Deliveroo appear as a temporary choice: work content might be pleasurable for sportier riders but power asymmetries and lack of social protections discourage riders with seniority. The most senior riders report continuing to work with Deliveroo mainly because of lack of career perspective and apathy, and wish to land a salaried job or to start a “biking-related” business.

References

- Acquier, A. (2017). Le capitalisme de plateforme ou le retour du ‘domestical system’. *Le Libellio*, 13(1), 87–100.
- Acquier, A., Daudigeos, T., & Pinkse, J. (2017). Promises and paradoxes of the sharing economy: An organizing framework. *Technological Forecasting and Social Change*, 125, 1–10.
- Aguilera, A., Dabanc, L., & Rallet, A. (2018). L’envers et l’endroit des plateformes de livraison instantanée. Enquête sur les livreurs micro-entrepreneurs à Paris. *Réseaux*, 212(6), 23–49.
- Aneesh, A. (2009). Global labor: Algoratic modes of organization. *Sociological Theory*, 27(4), 347–370.
- Avenier, Marie-José, & Thomas, C. (2015). Finding one’s way around various methodological guidelines for doing rigorous case studies: A comparison of four epistemological frameworks. *Systèmes d’information & Management*, 20(1), 61–98.
- Allard-Poesi, F., & Perret, V. (2014). Fondements épistémologiques de la recherche, in Thiétart, R. A. (2014). *Méthodes de recherche en management*. Dunod.
- Bain, P., & Taylor, P. (2000). Entrapped by the ‘electronic panopticon’? Worker resistance in the call centre. *New Technology, Work and Employment*, 15(1), 2–18.
- Bajoit, G. (1988). Exit, voice, loyalty... and apathy. Les réactions individuelles au mécontentement. *Revue Française de Sociologie*, 29(2), 325–345.
- Berg, J., & Johnston, H. (2019). Too Good to Be True? A Comment on Hall and Krueger’s Analysis of the Labor Market for Uber’s Driver-Partners. *ILR Review*, 72(1), 39–68.
- Bert, J.-F. (2011). *Introduction à Michel Foucault*. La Découverte.
- Brivot, M., & Gendron, Y. (2011). Beyond panopticism: On the ramifications of surveillance in a contemporary professional setting. *Accounting, Organizations and Society*, 36(3), 135–155.
- Cherry, M. A. (2015). Beyond misclassification: The digital transformation of work. *Comp. Lab. L. & Pol’y J.*, 37, 577.
- Cockayne, D. G. (2016). Sharing and neoliberal discourse: The economic function of sharing in the digital on-demand economy. *Geoforum*, 77, 73–82.

- Courpasson, D. (2017). Management as a Practice of Power. *The Oxford Handbook of Management*, 367–385.
- Davis, G. F. (2017). *The vanishing American corporation: navigating the hazards of a new economy*. ReadHowYouWant.
- Evans, P. C., & Gawer, A. (2016). *The rise of the platform enterprise: a global survey* (p. 30). The Center for Global Enterprise.
- Foucault, M. (1975). *Surveiller et punir: Naissance de la prison*. Gallimard.
- Foucault, M. (1976). *Histoire de la folie à l'âge classique*. Gallimard.
- Foucault, M. (1993). About the beginning of the hermeneutics of the self: Two lectures at Dartmouth. *Political Theory*, 21(2), 198–227.
- Foucault, M. (2004). *Naissance de la biopolitique: cours au college de France (1978-1979)*. Seuil.
- Gaventa, J. (1982). *Power and Powerlessness: Quiescence and Rebellion in an Appalachian Valley*. University of Illinois Press.
- Geertz, C. (1973). *The Interpretation Of Cultures*. Basic Books.
- Glöss, M., McGregor, M., & Brown, B. (2016). Designing for labour: Uber and the on-demand mobile workforce (pp. 1632–1643). Presented at the Proceedings of the 2016 CHI conference on human factors in computing systems, ACM.
- Goffman, E. (1961). *Asylums: essays on the social situation of mental patients and other inmates*. Anchor Books.
- Grima, F., & Glaymann, D. (2012). A revisited analysis of the Exit-Voice-Loyalty-Neglect model: contributions of a longitudinal and conceptually extended approach. *M@n@gement*, 15(1).
- Hall, J. V., & Krueger, A. B. (2015). An analysis of the labor market for Uber's driver-partners in the United States. *ILR Review*, 28.
- Hatchuel, A. (2005). *Gouvernement, organisation et gestion: l'héritage de Michel Foucault*. Presses de l'Université Laval.
- Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Harvard university press.

- Huws, U., Spencer, N., Syrdal, D. S., & Holts, K. (2017). *Work in the European Gig Economy: Research Results from the UK, Sweden, Germany, Austria, The Netherlands, Switzerland and Italy* (p. 60). Foundation for European Progressive Studies.
- Jan, A. (2018). Livrer à vélo... en attendant mieux. *La nouvelle revue du travail*, (13).
- Kenney, M., & Zysman, J. (2016). The Rise of the Platform Economy. *Issues in Science and Technology*, 32(3), 61–69.
- Kittur, A., Nickerson, J. V., Bernstein, M., Gerber, E., Shaw, A., Zimmerman, J., ... Horton, J. (2013). The future of crowd work (pp. 1301–1318). Presented at the Proceedings of the 2013 conference on Computer supported cooperative work, ACM.
- Le Texier, T. (2011). Foucault, le pouvoir et l'entreprise: pour une théorie de la gouvernamentalité managériale. *Revue de Philosophie Économique*, 12(2), 53–85.
- Lee, M. K., Kusbit, D., Metsky, E., & Dabbish, L. (2015). Working with Machines: The Impact of Algorithmic and Data-Driven Management on Human Workers (pp. 1603–1612). ACM Press.
- Lyon, D. (1993). An electronic panopticon? A sociological critique of surveillance theory. *The Sociological Review*, 41(4), 653–678.
- Naus, F., Van Iterson, A., & Roe, R. (2007). Organizational cynicism: Extending the exit, voice, loyalty, and neglect model of employees' responses to adverse conditions in the workplace. *Human Relations*, 60(5), 683–718.
- Ouishare. (2015). *La société collaborative. La fin des hiérarchies*. Rue de l'échiquier.
- Prassl, J., & Risak, M. (2015). Uber, Taskrabbit, and Co.: Platforms as Employers-Rethinking the Legal Analysis of Crowdwork. *Comp. Lab. L. & Pol'y J.*, 37, 30.
- Price, R. (2015, December 7). Deliveroo has discussed using drones for deliveries, Business Insider. From: [https://www.businessinsider.fr/us/deliveroo-ceo-william-shu-company-looking-at-dron e-deliveries-2015-12](https://www.businessinsider.fr/us/deliveroo-ceo-william-shu-company-looking-at-dron-e-deliveries-2015-12)
- Public First. (2018). *Freedom and flexibility: The relationship Deliveroo have with the labour market* (p. 32).

- Ravenelle, A. J. (2017). Sharing economy workers: selling, not sharing. *Cambridge Journal of Regions, Economy and Society*, 10(2), 281–295.
- Rosenblat, A., & Stark, L. (2016). *Algorithmic Labor and Information Asymmetries: A Case Study of Uber's Drivers*. Rochester, NY: Social Science Research Network.
- Sandberg, J. (2005). How do we justify knowledge produced within interpretive approaches?. *Organizational research methods*, 8(1), 41-68.
- Scholz, T. (2017). *Uberworked and underpaid: how workers are disrupting the digital economy*. Polity.
- Schor, J. (2016). Debating the sharing economy. *Journal of Self-Governance & Management Economics*, 4(3), 15.
- Schor, J. B., & Attwood-Charles, W. (2017). The “sharing” economy: labor, inequality, and social connection on for-profit platforms. *Sociology Compass*, 11(8).
- Scott, J. C. (1990). *Domination and the arts of resistance: Hidden transcripts*. Yale university press.
- Sundararajan, A. (2016). *The sharing economy: the end of employment and the rise of crowd-based capitalism*. The MIT Press.
- Supiot, A. (2015). *La gouvernance par les nombres: cours au Collège de France, 2012-2014*. Institut d'Études Avancées de Nantes.
- Tomassetti, J. L. (2016). Does Uber Redefine the Firm? The Postindustrial Corporation and Advanced Information Technology. *Hofstra Labor and Employment Law Journal*, 34(1), 1–78.
- Zuboff, S. (2015). Big Other: Surveillance Capitalism and the Prospects of an Information Civilization. *Journal of Information Technology*, 30(1), 75–89.
- Zuboff, S. (2019). *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. Profile Books.