PLATFORMS HAVE THE POWER...
AND PEOPLE CAN TAKE IT

EDITED BY BENVEGNÙ, CUPPINI, FRAPPORTI, MILESI, PIRONE
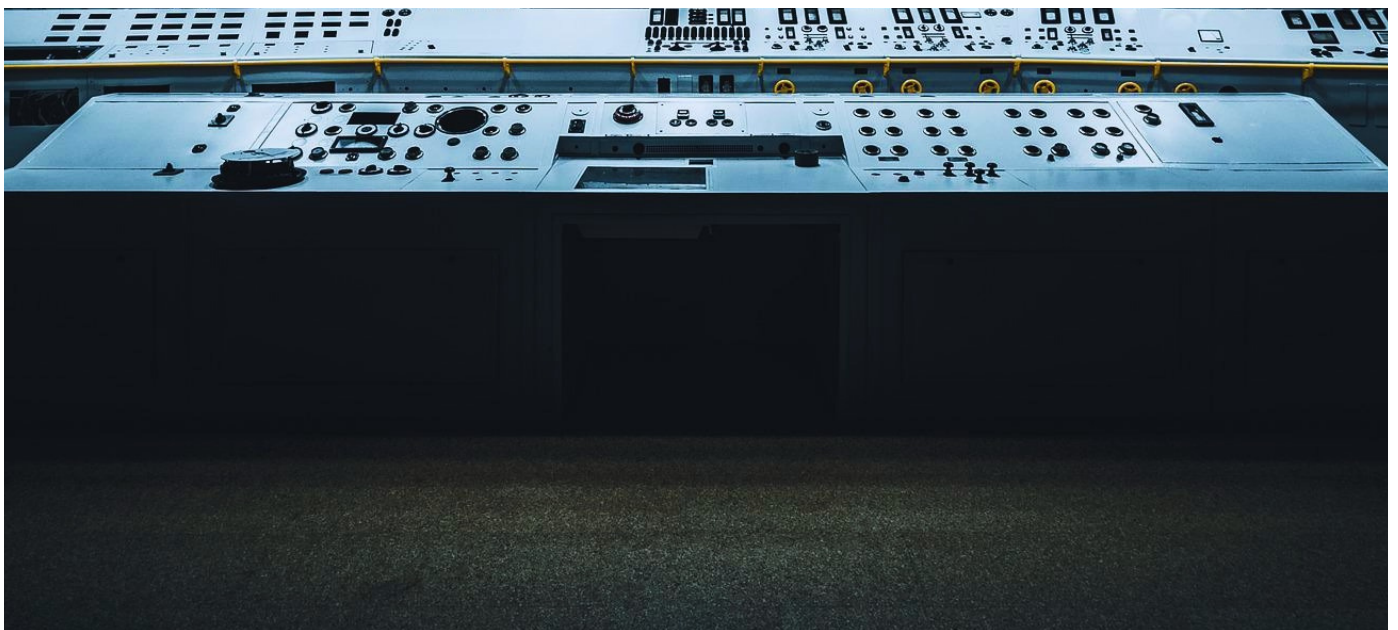
DEPARTMENT OF THE ARTS | UNIVERSITY OF BOLOGNA
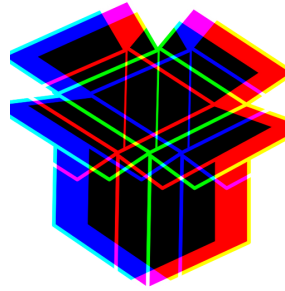
PLATFORMS HAVE THE POWER... AND PEOPLE CAN TAKE IT

EDITED BY CARLOTTA BENVEGNÙ, NICCOLÒ CUPPINI, MATTIA FRAPPOTI, FLORIANO MILESI, MAURILIO PIRONE

i quaderni di into the black box

INDEX

Platforms as assets and as a battleground

Andrea Fagioli

Saturday, 14 December 2019. In the Recoleta cemetery area, a tourist destination and meeting place for many riders, it is a sultry late afternoon. Mario comes from the west of the huge Gran Buenos Aires, has travelled an hour by train, cycled a couple of kilometers and is waiting for the first delivery of an evening that, for date and climate, promises to be tough but good.

After losing his job in a logistics company, he accumulated a lot of experience in the field of platforms. He has been an Uber driver - 'but it doesn't pay off if the car isn't yours' - and has active accounts in three

different food delivery apps operating in Buenos Aires: Glovo, PedidosYa and Rappi. Today he works for the latter, because it is not necessary to book a shift[1].

According to Mario, to do this job you have to know the platform, understand it. 'When you call technical support,' he says, 'they take a long time to answer and are often not helpful. They put people on the phone who have never done this work and when you explain to them what the problem is,

[1] A few months later, Rappi implemented the closed zone system, which ties the possibility of logging in certain zones and at certain times to the ranking.

they don't understand' (pers. comm. December 2019).

Natalia is Venezuelan, 21 years old, has been living in Argentina for two years and is studying Medicine at the University of Buenos Aires. She has done many jobs to support herself -baby sitter, call centre, etc.-, but among them, the rider is the one that pays the best and, above all, the one that best fits in with classes at the faculty, especially Rappi, which allows her to connect anytime and from anywhere. She is waiting for her mobile phone to announce the next delivery, in front of the large shopping centre opposite the cemetery. "Technical support never solves any problems," she says with conviction, "I only call them if the customer cancels the order and they give me a debt they shouldn't or when a wrong mileage appears" (pers. comm. December 2019).

The two riders agree that there are cases where the problem cannot be solved without involving the platform, especially when it has to do with the payment, refund and cancellation policy.

However, if the problem concerns the use of the app or obstacles that arise in the daily hand-to-hand with the operating system, riders resort to small tricks they know from experience and avoid communicating with technical support. "We have WhatsApp groups or call a few friends. "Look this happened to me or that happened to me". Above all, the new ones write to a mate or, at the limit, ask some rider they pass on the street' (Mario, pers. comm. December 2019).

My aim here is not to dwell on riders' discontent with the support they receive from platforms in carrying out their tasks; just as I do not intend to analyse the tension between two different categories of platform workers, call centre workers and riders. What interests me is to reflect on the great autonomy that riders have in organising the service that platforms offer and without which they could not offer it. An autonomy that increased even more during the 'social, preventive and compulsory isolation' - in force in Argentina from March to November 2020 - when riders had to manage two fronts: on the one hand, they had to work to avoid having problems with the protocol suggested by the platforms and, on the other hand, to avoid having problems with customers who sometimes rejected that protocol (Elbert & Negri, 2021).

The organisation of labour is a central issue in the framework of reflections on platform capitalism, in particular on the platforms that Nick Srnicek calls lean; those that appear to be 'asset-less companies', insofar as they do not own - in the case that interests me - bicycles, motorbikes or mobile phones, but 'do own the most important asset: the platform of software and data analytics' (Srnicek, 2017: 76).

In the debate on digital labour, riders can be placed, regardless of their relationship with platforms, in the framework of what has been called on-demand digital labour (Heeks, 2017; Casilli, 2019), characterised by the co-presence and articulation of an online and an offline dimension.

Both the former, managed through an algorithm that assigns orders to the riders according to logics that are not at all transparent and in perpetual change, and the extremely material level of the bodies moving through the city streets, entrusted in large part to the great ability of the riders to adapt to different situations, offer important things to consider. This double dimension must be taken into account

because it runs through the entire text.

Firstly, it must be taken into account that lean platforms, such as those of food delivery, could not exist without the separation and articulation of intellectual and physical means of production (see Nicoli & Paltrinieri, 2019). Put another way, on the one hand, platforms depend on physical means of production, owned and maintained by workers - without which the service could not be offered. On the other hand, it seems excessive to say that lean platforms do not possess much beyond their reputation (Hayns, 2016). On the contrary, it can be assumed that, if in Marx (1976) fixed capital consisted of machines, in platform capitalism software and algorithms can be thought of in terms of intangible fixed capital (Terranova, 2014; Vercellone, 2020).

Secondly, it can be argued that these platforms could not function without putting certain generic capacities of riders to work, capacities that they possess as potential beings, endowed with language and able to cope with a routine studded with contingencies of a different nature. And it is on this capacity that the service offered by food delivery platforms depends.

In the following pages, I will first discuss the theoretical framework within which my work is situated; then - as if to analytically isolate a technical dimension and a political dimension of on-demand digital labour - I will develop some reflections on the way in which algorithmic management feeds on what in Marxian terms can be called the general intellect; in the last part I will address the question of the political management of the workforce in food delivery platforms and how the knowledge required of

workers can constitute a key element in the subversion of power relations within platforms.

Theoretical Framework

The theoretical perspective from which I intend to tackle these problems is what, broadly speaking, we can call 'post-autonomist Marxism' (or 'post-workerism', or 'post-operaism'), because of the attention that certain authors belonging to that tradition devoted to the technological dimension of capitalism, which they analysed from a political point of view since the 1960s, from the first issue of the journal Quaderni Rossi (Red Notebooks) (see, for instance, Panzieri, 1980).

As Steve Wright (2002: 41) pointed out, in the 1960s the dominant view among Italian Marxists was that "technological progress somehow stood apart from class relation" and workerism can be thought of as the very first attempt to demystify technological rationality. The way of thinking technological innovation from the subjective class point of view, instead of from the objective point of view of capital, marks what Matteo Pasquinelli (2014a: 181) called "the passage from an organic composition to an organic antagonism". In this sense, from the operaist perspective, the will to dominate the rebellious hand of labour plays a key role in technological innovation.

It was mainly through reading the 'Fragment on machines' from Marx's Grundrisse that workerists questioned, in the 1960s, 'the supposed neutrality of science and of knowledge in general' (Virno, 1996: 266). That same text became fundamental, in the 1980s and 1990s - for the now 'post-workerists' - for thinking about post-Fordism and the knowledge

society; today, the 'Fragment on machines' is still useful for "thinking about the level of abstraction of the financial, securitarian, logistical and digital cosmopolis" (Pasquinelli, 2014b: 8) and, we might add, platform capitalism.

In those posthumously published notebooks, Marx (1973) was able to 'foresee' that, in the future, abstract knowledge would become the main productive force, a force that would relegate parceled and repetitive labour to a marginal position, marking the "destruction of the law of value" (Negri, 1989: 146).

While emphasizing the German philosopher's extraordinary capacity for anticipation, workerists filter Marx in the light of the history of capitalism.

Let us see in more detail. With the concept of general intellect, Marx alludes not only to scientific knowledge, but also to workers' knowledge expropriated from the workers and crystallized in the steel of machines. In the pages of the Gründrisse we read that 'the specific mode of working here appears directly as becoming transferred from the worker to capital in the form of the machine, and his own labour capacity devalued thereby [...] What was the living worker's activity becomes the activity of the machine (Marx, 1973: 704).

The reading of post-workerism authors emphasises that in contemporary capitalism there seems to be a reverse movement and, as Carlo Vercellone (2007: 29) indicates, "The principal 'fixed capital' becomes 'man himself'". And this is not because the ownership of work tools is increasingly in the hands of workers - a trend not only affecting riders and which the Covid-19 pandemic has taken to the extreme - but because of the capacities it incorporates.

In the words of Paolo Virno (1996: 270), in the framework of post-Fordist production 'the nexus between knowledge and production, in effect, is not exhausted in the system of machines; rather, it is necessarily articulated through concrete subjects [...] Within the processes of contemporary labour, there are entire constellations of concepts which function all by themselves as productive "machines," without any need for a mechanical body or for a small electronic soul'. It is therefore not knowledge that crystallizes into machines, but constellations of concepts that begin to function as machines.

Two issues should be emphasised here that help these reflections land in platform capitalism. The first is that that social knowledge which, with a particularly eloquent formula, Virno (1996, 2004) calls mass intellectuality is not only put to work in the advanced tertiary sector. On the contrary, whereas in the intentions of Ford-taylorism living labour was to be stripped of all knowledge, in contemporary capitalism labour power is required to fully live up to its definition: 'the aggregate of those mental and physical capabilities existing in the physical form, the living personality, of a human being, capabilities which he sets in motion whenever he produces a use-value of any kind' (Marx, 1976: 270).

The second issue to take into account is that it is not only workers' intellectual and linguistic capacities that are put to work - as cognitive capitalism theorists sometimes seem to suggest - and that labour is anything but disembodied. On the contrary, as the riders themselves demonstrate, "cognitive and affective labour is not isolated to specific organs but

engages the entire body and mind together" (Hardt & Negri, 2009: 132).

Michael Hardt and Antonio Negri (2000: 357) have repeatedly emphasised that labour is "productive activity of a general intellect and a general body". From this point of view, even when the product is immaterial - such as the data that platforms also collect thanks to workers like riders and put to value (see also Fagioli 2021) - "the act of producing remains both corporeal and intellectual" (Hardt & Negri, 2009: 132).

The second aspect that it is important to reread in the light of the history of capitalism is that of the contradiction between a production process based on science and a unit of measurement of wealth based on the amount of labour incorporated in products, which makes Marx (1973: 700) say: "Capital thus works towards its own dissolution as the form dominating production". A century and a half after those pages were written, we can affirm, again using Virno's words (1996: 267), that 'the full factual realization of the tendencies described in the Grundrisse, without, however, any emancipatory-or even merely conflictual-reversal' and that new and stable forms of domination have come into being.

In any case, the reappropriation of fixed capital by living labour opens up horizons where new conflicts can and are in fact arising. On the terrain of platforms, forms of conflict are emerging between capital and labour in which the latter can direct against capital the knowledge it is required to put into work.

Algorithmic Management: putting the general intellect to work

Returning to the case that interests me, it should be noted that one of the main terrains of capital-labour conflict in food delivery platforms is that of the opacity of algorithms. In fact, as has been effectively pointed out in the framework of militant research, which focused on the case of Foodora, "The provisions paid for the order form a substantial part of the couriers' income at Foodora, and because of this, those who get more orders earn more. The courier however does not know how and why the algorithm distributes the orders to one courier instead of another. Apparently, the algorithm distributes orders to couriers it deems 'effective'" (Tammisto, 2018).

Crossing the Atlantic Ocean and the Equator, things are not too different; on the contrary, the dependence on orders is even greater, insofar as none of the platforms pays riders a fixed amount and the remuneration depends exclusively on the deliveries made, the rate of which varies according to logics that escape the workers and over which they have no possibility of intervening.

As Julieta Haidar (2020: 35) pointed out in a research based on riders in Buenos Aires during the pandemic, but extensible to many other realities and 'normal' times, "the large volume of information extracted by monitoring riders regarding the number of deliveries accepted and made, the hours and areas in which they work, the ratings of customers and shops, is used by platforms to evaluate them and place them in rankings that translate into a complex system of rewards and penalties designed to generate productivity-enhancing conduct".

In the debate, the formula algorithmic (or automated) management is used to indicate "the software architectures employed by the platforms allow for the

organisation of the labour process increasingly with little or no direct oversight of human managers" (Niebler, Altenried & Macannuco, 2020: 257). A group of researchers identified "four features of the app, which correspond to four different ways of controlling autonomy in this type of management regime" (Ivanova, Bronowicka, Kocher & Degner, 2018: 12).

Although this research is carried out in Europe, with Foodora and Deliveroo, the ways indicated by the researchers to control work and conduct - control through automated notification; control through monetary incentives; control through internal competition for shifts; and control through information asymmetry - can also be applied to local platforms.

If food delivery apps aim at conducting riders' pipelines or, put another way, at managing the flow of workforce according to their needs, the condition of possibility of algorithmic management is the putting of specifically human capabilities to work. Algorithmic management can externalise a number of tasks and decisions, only because what we have called mass intellectuality includes a certain familiarity with different communication systems, an understanding of artificial languages, but also "local knowledges, informal 'linguistic play,' as well as certain ethical preoccupations" (Virno, 1996: 270).

Let us look at this in more detail. As has been stated from a Turin-based research, "technology-intensive capitalism extracts value from the collective intelligence [...] but also through the continuous valorisation of human labour in both its physical and affective engagements with the social environment of the metropolis"

(Rossi, 2019: 1428). It is not, as one might *prima facie* think, a question of valorising a specific skill or prior knowledge, such as knowing how to move in the city where one grew up.

Andrés and Andrés, a Venezuelan father and son working together in the Palermo neighborhood, for Glovo and PedidosYa respectively, seem to confirm this hypothesis. "With GPS, you don't lose a blind person or a deaf person," claims Andrés father. 'If I went to Berlin tomorrow and the day after tomorrow to Shanghai, beyond the language problems, I could work there immediately too,' adds the son (pers. comm. October 2019).

What seems to be decisive is the ability to adapt to situations, to know how to build, fit in and move within a network of human relations, which is fundamental for solving problems.

"When you do this job for a while you know the App, you know what the problems can be and you prevent them," says Mario, "for example, if you don't get to the shop on time the platform sends you a message and 'frees' you, so I don't wait to arrive to let you know I've arrived, 7/800 metres before I already let you know, so I avoid the risk. Another example he gives - and which partially contradicts what Andrés claims, about the little influence of city knowledge[1] - is that of weighting the acceptance of deliveries. 'Here,' he shows the screen on his mobile phone, 'the platform tells me where I have to go to pick up the order. When you have experience in the area you know the distances and times. If you accept the order from Freddo [ice cream parlor chain]

[1] I say partially, because it has more to do with a knowledge that is generated in hand-to-hand combat with the platform than from a real knowledge of the city, such as a native may have.

on Ayacucho Street you arrive immediately, if you accept the order from Freddo Obelisco [another outlet], even if the App says 5 minutes, you know you won't arrive, they release your order and block you an hour. If you know how it works, you don't accept, even at the expense of the acceptance rate and therefore the ranking, but you avoid the problem' (pers. comm. December 2019). These tricks, which allow Mario and the other riders to survive the problems of the computer system, as well as those of another nature that constantly emerge, allow him to continue working, but at the same time make it possible for the platforms to function and meet the delivery times they promise in the advertisements.

On the other hand, it is important to emphasise the centrality of the emotional element, which enters fully into the concept of general intellect. Although for riders in Buenos Aires it cannot be stated sic et simpliciter that "If a restaurant manager decides they don't like you, they can flag your account" (Barker, 2020: 53), nor that "online reputations laboriously built up over months or years" can be "destroyed in a flash by one spiteful customer's unchallengeable low star rating" (Huws, 2016), neither can one deny the vulnerability of riders in this respect.

In the case of Uber, Alex Rosenblat and Luke Stark (2016: 3775) pointed out that drivers are required to 'suppress or contain their emerging emotions to present a placating or welcoming demeanor to customers, regardless of that customer's reciprocal emotional state [...] in exchange for ratings instead of tips'. Albeit at a different level, especially by virtue of the

shorter duration of interactions, there are many situations in which riders have to put on a good face to avoid a bad rating or be particularly polite to get a good one. In many cases, riders are called upon to explain a problem with the app or, more simply, to appease the anger of dissatisfied customers. 'You are thieves, I will never buy anything from you again'. writes a customer[1] in a chat to Ezequiel, who is guilty of warning her that the supermarket on Avenida del Libertador where she placed an order, which she has already paid for, is now closed. No matter that Brian, to avoid a negative evaluation, tries to be as helpful and well-disposed towards her as possible and sends photographic evidence of the closure of the supermarket.

The customer's fury, which completely identifies worker and platform, is due to Ezequiel's refusal to look for alternatives; alternatives that would involve extra work that, ça va sans dire, would be unpaid. In cases such as this, which go completely beyond the algorithm, riders are called upon to take over functions that would be the responsibility of the customer service, resorting to argumentative strategies or appealing to the emotional and human side.

Beyond the political management of living labour
Up to this point, the logic of algorithmic management seems to be directed exclusively at efficiency. One aspect that remains somewhat in the shadows is the dimension of the - let's call it - 'political' management of living labour by platforms. This is an aspect that emerges, in an

[1] The screenshot of the chat was posted by the person concerned in the Whatsapp group of riders.

obvious way, in the unilateral suspension of the accounts of riders who have participated in strikes or other demonstrations, and which requires the intervention of some grey official of the Apps, called upon to manually enter into the system the ID number of the rider to be blocked.

But the 'political' dimension is not only manifested by human intervention; it seems that even in the logic of the algorithms' functioning, the neutralization of labour-force is central. Juan Manuel Ottaviano, lawyer and councilor of APP - Asociación de personal de plataformas[1], argues that the algorithm voluntarily favors turnover: 'Obviously there are labour trajectories within the platforms,' he says, 'but this is due to a kind of worker knowledge that tries to oppose the platform ideal, that ideal that refers to the work, therefore to a part-time performance or during a determined period of time'. According to Ottaviano, whose opinion is based on the experience of 'militant' work, not having access to any company data, 'the algorithm is designed so that there is dispersion over the territory and workers do not accumulate in certain places, but it is also designed for a rotation of personnel'. In this sense, 'when a new generation of riders enters the platform, the algorithm tends to assign them more deliveries, more work and therefore more economic revenue. Especially in Rappi, it is very clear that workers make a cycle' (pers. comm. December 2020).

This hypothesis is confirmed today in the anxieties of the many rappitenderos who have been suspended - in their opinion - arbitrarily in recent months. "After the suspension you get a screen that says 'service inconveniences' or 'the products did not arrive in the appropriate manner', but you don't really know what they refer to," says Carlos (pers. comm. December 2020). "It's obvious that something strange is going on,' echoes Camila, with whom he alternates childcare and riding hours, 'maybe they put too many people in during the pandemic and now they want to reduce the number of workers. We wouldn't have been riders ourselves if we hadn't lost our jobs' (pers. comm. December 2020).

But while platforms, through their algorithms, make a kind of class struggle from above, at the same time they constitute a space in which forms of labour insubordination can be generated. Indeed, among the ways in which platforms harness the relational capacity that characterises that potential, non-specialised being that is the human being, is to exploit the communication and enormous flow of information circulating in the numerous Facebook groups and equally numerous WhatsApp chats of riders. Riders solve problems ranging from how to legalise a foreign licence to where to find an open mechanic, from what to do if an order that was paid for by credit card is cancelled to how to get an account that crashes to work. These groups also function as a support network for accidents and safety that in an employer-employee relationship would be the responsibility of the company. In many cases, the groups seem to be an additional training, when not a substitute, to what the platform should provide.

In this sense, it should be taken into account that each rider is a platform multiple-user, not only in the sense that

[1] It is the first union in Argentina that has the ambition of bringing workers together not by sector, but by the fact of working via platform.

many of the riders in Buenos Aires work with more than one food delivery app at the same time (Haidar, 2020), but also that they use different platforms in a coordinated manner to complete deliveries. They use geolocation programs such as Waze or Google Maps to get around in a huge city like this, payment platforms to circumvent debt limits and thus be able to continue working during the hours when the agencies of non-bank payment channels are closed, and also platforms to protect themselves against the risks of the job.

Deep knowledge of the mechanisms of platforms and knowing how to move in the bowels of apps is not only vital for riders to be able to do this work and, in parallel, for food delivery platforms to exist, but it has also allowed for extremely creative forms of struggle. In 2018 in Buenos Aires there was the first strike of riders in Latin America; 'the idea of the strike was to be in one of the places where there was the most orders,' recalls Jorge, 'when an order arrived we would accept it but just before 30 minutes passed, the maximum time available, before the platform blocked us, we would release it and another comrade would take it and do the same. Customers would call because deliveries were not arriving and through the GPS they would see that all the red dots of riders were in the same place' (pers. comm. December 2019).

Although a phenomenon in the manner of the 2018 strike has not been repeated, there have also been international strikes in recent months. Again, the ability to know how to navigate the platforms and the fabric of human relations created was key to the organisation of the mobilisations. The use of other platforms, such as telepresence platforms, allowed workers from various countries to meet virtually and even organise a three-day international assembly (16-18 August 2020) with translation into various languages, which was attended by platform workers from over 10 countries. Some riders intervened from the road, between deliveries, while drivers while waiting for a passenger in the car.

If from the point of view of living labour, it can be said that the problem is not the platforms, but the social relations underlying them, it is also possible to go further and say that they constitute a terrain of struggle where those relations can be subverted.

References

Barker, A. (2020) Cycling in the city. Notes From Below, 13, 47-62.

Casilli, A. (2019) En attendant les robots. Enquête sur le travail du clic. Paris: Seuil.

Elbert, R. & Negri, S. (2021) Delivery Platform Workers during covid-19 Pandemic in the City of Buenos Aires (Argentina): Deepened Precarity and Workers' Response in a Context of Epidemiological Crisis, Journal of Labor and Society

Fagioli, A. (2021) To exploit and dispossess: The twofold logic of platform capitalism. Work Organisation, Labour & Globalisation, 15 (1), 126-137

Goodwin, T. (2015) The Battle is For The Costumer Interface. Techcrunch [Online] Consultabile su https://techcrunch.com/2015/03/03/in-the-age-of-disintermediation-the-battle-is-all-for-the-customer-interface/ [accessed 02/12/2020].

Haidar, J. (2020) La configuración del proceso de trabajo en las plataformas de reparto en la ciudad de Buenos Aires. Un abordaje multidimensional y multi-método. Buenos Aires: Instituto de Investigaciones Gino Germani – Universidad de Buenos Aires.

Hardt, M. & Negri, A. (2000) Empire. Cambridge, MA: Harvard University Press.

Hardt, M. & Negri, A. (2009) Commonwealth. Cambridge, MA: Harvard University Press.

Heeks, R. (2017) Decent work and the digital gig economy [Online] http://hummedia.manchester.ac.uk/institutes/gdi/publications/workingpapers/di/di_wp71.pdf [accessed 05/12/2020].

Huws, U. (2016) Logged In [Online] https://www.jacobinmag.com/2016/01/huws-sharing-economy-crowdsource-precarity-uber-workers/ [accessed 05/12/2020].

Ivanova, M., Bronowicka, J., Kocher, E., & Degner, A. (2018) The App as a Boss? Control and Autonomy in Application-Based Management. Work in Progress interdisziplinärer Arbeitsforschung, 2, Viadrina University, Frankfurt.

Marx, K. (1973) Grundrisse. Introduction to the Critique of Political Economy. New York-Vintage Books.

Marx, K. (1976) Capital. A Critique of Political Economy, Volume 1. London-New York: Penguin Books-New Left Review.

Negri, A. (1989) Marx Beyond Marx. Lessons on the Grundrisse. New York-London: Autonomedia-Pluto Press.

Niebler, V., Altenried, M. & Macannuco, J. (2020) Platform Labour: Contingent Histories and New Technologies. Soft Power, 13 (7,1), 255-265.

Panzieri, R. (1980) The Capitalist Use of Machinery: Marx versus the 'Objectivists'. In P. Slater (ed.) Outlines of a Critique of Technology. London: Ink Links.

Pasquinelli, M. (2014a) To Anticipate and Accelerate: Italian Operaismo and Reading Marx's Notion of the Organic Composition of Capital. Rethinking Marxism, 26 (2), 178-192.

Pasquinelli, M. (2014b) Introduzione. In Pasquinelli, M. (ed.) Gli algoritmi del capitale. Verona: ombre corte.

Rosenblat, A. & Stark, L. (2016) Algorithmic Labor and Information Asymmetries: A Case Study of Uber's Drivers. International Journal of Communication, 10, 3758-3784.

Rossi, U. (2019) The common-seekers: Capturing and reclaiming value in the platform metropolis. Environment and Planning C: Politics and Space, 37 (8), 1418-1433.

Srnicek, N. (2017) Platform Capitalism. Cambridge: Polity Press.

Tammisto, T. (2018) When Mr. Robot is your Boss: Working under Algorithms [Online] https://foodoracampaign.noblogs.org/post/2018/10/11/when-mr-robot-is-your-boss-working-under-algorithms/ [accessed 05/12/2020]

Terranova, T. (2014) Red Stack Attack. Algorithms, Capital and the Automation of the Common. Conference held at Goldsmiths' College, University of London.

Vercellone, C. (2007) From the Formal Subsumption to General Intellect. Elements for a Marxist Reading of the Thesis of Cognitive Capitalism. Historical Materialism, 15, 13-36.

Vercellone, C. (2020) Les plateformes de la gratuité marchande et la controverse autour du Free Digital Labor: une nouvelle forme d"exploitation?. Information et Communication, 2.

Virno, P. (1996) Notes on General Intellect. In Makdisi, S., Cesarino, C. & Karl, R. (eds.) Marxism beyond Marxism, New York: Routledge, 265-272.

Virno, P. (2004) A Grammar of the Multitude. For an Analysis of Contemporary Forms of Life. Los Angeles: Semiotext(e).