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Sandro Mezzadra ·  
Niccolò Cuppini · Mattia Frapporti ·  
Maurilio Pirone *Editors*

# Capitalism in the Platform Age

Emerging Assemblages of Labour  
and Welfare in Urban Spaces

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Mattia Frapporti · Maurilio Pirone  
Editors

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and Welfare in Urban Spaces


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# **Theoretical Foundations**



# Introduction. The Platform Age



Niccolò Cuppini, Mattia Frapporti, Sandro Mezzadra, and Maurilio Pirone

## 1 Exploring Platform Capitalism

This two-part work brings together the outcomes of the Horizon 2020 Project PLUS, “Platform Labor in Urban Spaces”. Running from December 2018 to March 2022, which included an extension from December 2021 due to the COVID-19 pandemic, this research project investigated the main features and dimensions of the impact of digital platforms on the economy and society, with a specific focus on labour, urban transformations, and welfare. Sixteen partners, including universities, research centres, and cooperatives, investigated the operations of four digital platforms (AirBnb, Deliveroo, Helpling, and Uber) in seven European cities (Barcelona, Berlin, Bologna, Lisbon, London, Paris, and Tallin). The research involved, in different ways, municipalities, independent researchers, platform managers, and established grassroots unions. The fact that the four abovementioned platforms operate in diverse fields—accommodation, food delivery, domestic labour, and transport—has allowed us to carry out a wide-ranging analysis of the rapid spread of digital platforms across the economy and society.

The visibility of digital platforms and related labour has only increased with the COVID-19 pandemic, providing us with the opportunity to study their impact in a more intensive and “pure” way. While it is important to keep in mind the exceptional nature of the pandemic, the situation encapsulated by the iconic image of empty cities traversed by riders has allowed us to grasp features of platforms’ operations that could remain obscured in “normal” conditions. We have attempted to use this exceptional situation to our epistemic advantage, while doing our best to negotiate the problems brought about by the spread of the virus. It is also important to note that in the years leading up to the pandemic there was an exponential increase in interest in digital platforms, something that the pandemic simply reinforced. You need only

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look at the reference lists in the following chapters to see the recent uncontrolled increase in the academic literature on digital platforms. This work aims to make original contributions to this literature by focusing on labour, urban transformations, and welfare, as well as on the intertwining of these dimensions in the operations of platforms.

As a number of the chapters explain in more detail, our approach is shaped by a theoretical decision to employ the notion of “platform capitalism”. This means that we investigate digital platforms as emerging actors that facilitate the valorization and accumulation of capital. To put it in a slightly different way, and as reflected in the title of this book, we analyse capitalism in the platform age. By their nature, digital platforms have an elective affinity with capitalism. Benjamin H. Bratton, in his *The Stack*, called them “generative mechanisms” that set the terms of participation according to fixed protocols and “acquire strength and dimension by mediating unplanned and perhaps even unplannable interactions” (Bratton, 2016, 374). Adding value to “strength and dimension” provides an abstract but effective picture of how platforms can promote the valorization and accumulation of capital. We have chosen to include the word capitalism in the title in order to stress this aspect. We are aware that it is not a neutral term, but we are not aiming to write a neutral book.

However, far from reducing our analysis to the domain of the “economy”, our understanding of platform capitalism led us to emphasize the social and cultural implications of operations that impinge on society as a whole. These implications include the extractive nature of digital platforms, which is often emphasized with respect to techniques of data mining; the disruption of any work-life balance associated with platform labour; and the impact of platforms on lifestyles, consumption patterns, and imaginaries. At the core of digital platforms, beyond their huge heterogeneity with respect to their scale, fields of operation, and even rationality, there is a drive to capture interactions and act as intermediators between them. Platform capitalism is defined as an attempt to convert these interactions into a vehicle for the valorization of capital through deploying specific forms of intermediation. The new business model and the new type of firm instantiated by digital platforms are entirely predicated upon this logic.

Nick Srnicek demonstrates that platform capitalism emerged in the wake of the turmoil generated by the 2007–2008 financial crisis, when the generalized low interest rate environment reduced the rate of return on a wide range of financial assets and prompted investors, so-called “venture capitalists”, to “turn to increasingly risky assets”, which in turn facilitated the rise of platforms (Srnicek, 2016, 30). This is an important reminder of their recent origin, making the pace of their spread even more astonishing. Nonetheless, it is important to delve into the genealogy of digital platforms, shedding light on their antecedents and on the contested and even antagonistic nature of the developments that led to their emergence. The field of logistics is particularly important here, regarding both the rationality of intermediation that we mentioned above and the long history of labour struggles that spurred on most of the technical innovations in the logistical world. Moreover, recent studies have emphasized the capacity of logistics to produce spaces, subjects, and “worlds”, another feature it shares with digital platforms (see Cowen, 2014).

Our research is focused on Europe but is also shaped by an awareness of the fact that the spread of digital platforms goes far beyond Europe and the Western world. Just think of China, where there has also been an intense spread of digital platforms, although with its own peculiarities. Thus several chapters call for the “de-Westernization” of platform studies. One concept that allows us to grasp the effects of the spread of digital platforms without homogenizing them is “platformization”, which encourages an analysis of the effects of the operations of platforms even beyond their specific domains. While platformization is at work both in China and Europe, although in different and geographically diversified ways, it allows us to study the ways in which digital platforms transform the very structures of the economy and society. For instance, the concept of the platformization of labour invites us to investigate the differential although powerful “spillover” of labour management systems characteristic of platform labour into other sectors of dependent labour. More generally, we elaborate on the concept of platformization based on an understanding of platforms as digital infrastructures that increasingly build the conditions of possibility of social relations—of “intersections”. Therefore, we underscore the political dimension and effects of the operations of platforms, and their involvement in processes of government understood with Michel Foucault as a “conduct of conducts” (Foucault, 1994, 237).

However powerful platforms are, their functioning is far from smooth. They are crisscrossed with forms of resistance, including practices of appropriation and counter-use. In this book, we do not limit ourselves to a provisional mapping of these struggles, but use them as a methodic principle to guide our research, ensuring it is attentive to the frictions and tensions surrounding processes of platformization. This means that we call attention not only to actual and potential sites of conflict but also to the spaces within which an appropriation and subversion of the very code of digital platforms becomes possible. Far from feeling compelled to take sides in the endless debate between “technophiles” and “technophobes”, we focus our analysis on the ambivalent and contested nature of digital technology (and indeed of technology as such), and on the social relations and clashes that drive its development. This is an important aspect of our work that helps to shape our analysis of urban transformations, labour, and welfare.

## 2 Platformed Urban Ecosystems

In recent years, the disrupting impact, organizational strategies, spatial mutations, and new dynamics of daily life in cities determined by digital platforms have been framed through the term “platform urbanism” (Barns, 2020; Mörtenböck & Mooshammer, 2021). This neologism emerged within urban studies to interpret the nexus between cities, capital, and technology, and to emphasize the hegemonic role of digital platforms as the core of this interrelation.

While the smart city framework—as the prevalent concept for restructuring urban spaces via digital technologies in the first decades of the twenty-first century—was

based on collaboration between companies (like IBM) and municipal governments, using a substantially top-down model, platform urbanism is more antagonistic to government regulations,<sup>1</sup> more interactive with users, and characterized by a rapid scaling-up via network effects and venture capital (Caprotti et al., 2022). Digital platforms tend to mediate social action and to automate the market, producing a digital disruption thanks to the combination of business, technology, data strategy, and interaction, which is designed to produce “platform ecosystems”.

What emerges from the research gathered in this work is an expanded notion of platform urbanism. Digital platforms are not simply the urban interface of platform capitalism but are an *intrinsically* urban phenomenon. They develop thanks to the spatial proximity of individuals in cities, benefiting from population density and from the potential that this concentration has in terms of availability to work and consume. The strategy of digital platforms “is fought on the urban front: surge into cities, spread like wildfire, subvert any regulation, supplant all competition, and secure their position as an aspiring monopoly” (Sadowski, 2020, 451). However, it also goes deeper than that.

Platforms and urbanism should be read as consubstantial, leading to transformations in both directions. In other words, platform urbanism is not only about how digital platforms are transforming cities, but it is also about how cities are transforming the digital environment. We could also go further to say that now platforms and the urban both contribute to the evolution of the same transformative process. Platforms represent the infrastructuralization of the web, what we could call the “urbanization of the internet”, with the internet becoming a digital copy of urban power relations.

Moreover, we could say that in a metaphorical sense, any single platform is a city in itself, interconnected with but separated from other platforms-cities via socio-technical arrangements. We could thus describe this as an emerging complex hyper-urbanscape, with multiple mobile localizations like a fluctuating archipelago of islands/cities. To employ a notion proposed by Keller Easterling, platforms could be seen as architectures of “digital extrastatecraft”, and their territories as a zonal technology that colonizes space through the management of time. Moreover, these city platforms promote computationally managed systems that can learn and adapt, self-evolve, and continuously self-optimize by collecting data without the need for “external” political or social intervention.

The emergence of this complex urbanscape prompts a reimagining of the existing infrastructural geographies of the city and of the labour underpinning the functioning of urban life. Platforms interact with existing infrastructures and environments, thus transforming the way the urban is governed and experienced through technology (Wiig & Masucci, 2020). These interfaces have now become ubiquitous, and this book

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<sup>1</sup> It is important to note that there are relevant differences between different platforms in different contexts. Whereas, for example, platforms like Airbnb have a tense relationship with local government, in many cities Uber is working together with municipalities to implement new urban mobility plans (<https://movement.uber.com/?lang=en-US>).

also puts an emphasis on the necessity for the methodological and genealogical investigation of these phenomena, in order to more accurately grasp the transformations they undergo and influence.

An analysis of the territorialization of digital platforms (and of the new spatial arrangements and social relations they produce) requires an approach with a planetary perspective that is able to grasp how they interact, the frictions they produce, and the adaptations they require in the urban fabric. This is why in our research we studied platform operations on the ground in local urban settings. However, rather than considering specific urban case studies as meaningful in themselves, we have adopted a research approach that focuses on the continuities, resonances, and commonalities that platforms are producing on a large scale. This does not mean that specificities, differences, contextual and situated factors do not matter. On the contrary, we think that a trans-urban analytical approach should be able to emphasize the contextual dynamics by enlightening the common ground in which they are produced and the particular frictions emerging in the processes of territorialization (Cuppini et al., 2022).

There is a radical paradox: on the one hand, platform urbanism dismantles consolidated city forms and ways of life through digital and transnational process that have a dispersive effect—but thanks to the agglomerated effect of the urban nodes, and, on the other hand, platform urbanism concentrates the previously dispersed shapes of the web, creating city-like platforms as new agglomerated concentrations—but thanks to their infrastructural planetary operations.

Another significant aspect of our research methodology and theoretical framing was the interpretation of the urban-labour nexus. A vast amount of the literature indicates, albeit using different approaches, how the antagonistic labour-capital relationship “translates” spatially. Historically, the approach to this issue revolved around the city-countryside dichotomy, and many approaches have subsequently understood the issue in global terms with respect to the centre-periphery relationship. Even if this rigid representation has been gradually challenged over time, the central point is that space is treated as a strategic social construction for the generation of profits and thus for capitalist reproduction. Capital has a continuous need to reshape space, just as labour produces continuous encroachments from such spatial designs. However, the temporal aspect must also be added to this reading: space is continually temporalized as capital puts different times and speeds of valorization to use in the world market. The more production is based on exchange, the more crucial communication and transportation systems become. Thus, as stated above, platforms have become the new frontier of this infrastructural and logistical logic.

In *The Platform Society*, van Dijck, Poell, and de Waal address the infrastructural dimension of platforms in stark terms: composed of Google, Amazon, Facebook, Apple, and Microsoft (known as the GAFAMs), they argue that the “infrastructural platforms” form “the beating heart of the ecosystem through which an infinity of other apps or platforms can be built” (2018, 20). These include a number of “sectoral platforms” that thrive through them. These can be from a particular sector or “serve niche markets such as infonews, transportation, food, education, health, finance or hospitality” (Ivi, 46). However, even if this binary division of platforms has its merits,

and justifications in terms of method (and in some ways connects *The Platform Society* to Nick Srnicek's work), we believe it should be more nuanced. It seems to us more productive to conceive the infrastructural process of platform urbanism as a whole, highlighting its eco-systemic character.

Finally, it is important to note that speaking about platforms in terms of infrastructures does not mean we see them as a neutral or "technical" apparatus. The infrastructural dimension of platforms makes the paradoxical functioning of platform urbanism possible, allowing it to operate in an articulated manner to both concentrate and disperse the consolidated spatial arrangements. And, like all infrastructures today and in the past, digital infrastructures connect but at the same time restrict and impose particular movements. The combination of the urbanization of the internet and the flattening of cities provides the material and immaterial terrain on which new codes of power and new political forms are being defined today within emerging complex multi-spatiality.

### 3 Workers Characters and Strategies

The second crucial subject of our analysis is labour. The labour process was the field in which the research most deeply analysed the continuities, resonances, and commonalities that platforms produce on a large scale. Within the three years of the PLUS project, researchers conducted more than 230 qualitative interviews and hundreds of quantitative interviews with various stakeholders in the seven cities involved. Among stakeholders, platform workers also participated in all of the various focus groups, Social policy labs, and Communities of practice that were organized as part of the project. The outcomes of this multi-layered research process are discussed in the book.

In general terms, we could argue that platforms de facto introduced the figure of the "potential worker", posing various challenges both from a theoretical and practical viewpoint. This figure lives in a situation of continuous flux, entering and leaving platforms in which labour intensity is never constant due both to market uncertainties and to the fact that there is a structural dimension of "overemployment" within platforms. Thus, "platform capitalism" goes beyond the wage labour/employee binomial, as Yann Moulier Boutang would call it (1998), for at least three reasons.

Firstly, while most platform workers are not wage labour, they are still essentially workers with all the duties of employees, even if platforms consider them to be self-employed. For example, due to rating systems, workers such as Deliveroo riders cannot choose to have a weekend off without losing their ranking position, which would have direct consequences on their shift allocation (although that situation is changing slightly after riders' strikes).

Secondly, platforms create hierarchies within their ecosystems. They push for strong engagement by workers, with those who do not engage enough being partially excluded from work possibilities. For example, Airbnb strongly encourage hosts to

allow guests to do “instant booking” in order to have a better position in terms of announcement visibility (thus, in terms of number of bookings).

Thirdly, the binomial wage labour/employee is also overcoming in relation to social security. Those who work with platforms have to completely shoulder the burden of their own social security. Thus, although they are essentially employees, platform workers do not benefit from any form of welfare and social security, unlike normal wage labourers. This results in phenomena such as multi-employment and multi-apping: some of the freelancers interviewed integrated platform labour with other jobs, thus guaranteeing social security coverage, while others, especially those in delivery and ride-hailing, operated on more than one platform to increase their possibility of getting orders.

When looked at in more detail, we see that within “platform capitalism” workspaces are changing, work modalities are transforming, and the distinction between working and not-working time is becoming increasingly blurred. Platforms have transformed cities into new spaces of work. As stated, we are witnessing a kind of urbanization of platforms as well as a platformization of the urban. “La rue est notre usine” (The street is our factory) could be read on many posters in demonstrations that have taken place in France since 2018. Indeed, urban spaces became the new workspaces as well as the “new terrain” of struggle for many people busy with the variegated world of platforms. Furthermore, despite the widespread rhetoric of the end of labour, work is far from having disappeared. It is simply parcelled out and extended. What is changing is not its substance but its modalities and, sometimes, workers’ perceptions. It is worth stressing here that many platform workers still absorb the official ideas and rhetoric of gig-work. In multiple interviews, we heard positive evaluations of the idea of “playbour” (“I like this job because I like to ride my bike and it allows me to work out...”), of “competition” (due to the ranking system and “personal score” in Uber, Deliveroo, Airbnb, and Helpling), and of “flexibility and self-organization” (“I bring my book and study in my breaks...”).

In the field of labour, we can reveal further features that are peculiar to some cities, though not exceptional. For example, fieldwork in Paris showed how some Uber drivers had to go into debt to pay for the car that allowed them to work to pay back the debt. This is a vicious circle also seen in other platforms (such as the case of Deliveroo in Bologna: indebtedness to buy an electric bike to make faster deliveries) and has produced complicated situations, especially during the COVID-19 pandemic. This “financialization of the platform economy” impacts subjective relationships to work and also shapes (at least in some cases) the degree of engagement, subordination, and constraint.

The phenomenon of intermediary companies is also peculiar to some cities, although also not exceptional. Intermediation agencies such as Uber TVDE hire drivers in Lisbon to act as brokers between the platform and the workers. In similar terms, Airbnb sees the figure of the “Properties Manager” as an intermediary between the platform and the owner of the house/apartment/room. In such cases, the extraction of value from the work of a single driver or host occurs both by the platform and by the intermediary companies.

Another significant element is the role algorithms play offstage. Platforms often seem like black boxes with neither workers nor low-level managers knowing exactly how they work. Platforms are led by algorithms. While in some cases this is seen positively (for instance, by few female workers who argue that not having a boss in the flesh means they lessen the “continuous risk of sexual harassment”), the information asymmetry between employees and platforms mainly led to the algorithm being seen as a field of tension: workers would like to know more about how their shifts are allocated in, say, Uber, Deliveroo, or Helpling, with the opacity surrounding the algorithm contributing to inciting strikes.

We will now briefly examine strikes and workers’ actions before moving on to the next section on welfare and social security. As mentioned at the beginning of this introduction, various forms of resistance break the smooth surface of platforms. There are two strategies platform workers often adopt: the first we will describe as “exit”, and the second as “voice”.

The first refers to forms of escaping from platform rules, for example, avoiding strong management control techniques and creating a disintermediation between users and workers (e.g., establishing a direct enduring relationship between a user and a worker as could happen with apps such as Helpling, Airbnb, or Uber). This is also intertwined with the topic of the platforms’ relation with the informal economy, another issue that is examined in the book.

The second refers to voice-oriented and strike strategies, which are more common with platform workers who have a low-income level but experience high-control techniques with few possibilities of establishing direct long-term relationships with users outside the platform. These workers partially or totally refuse the narrative of self-entrepreneurship with its commission-based payment logic and ask the platforms to guarantee their common rights. Among the platforms investigated by PLUS, Deliveroo faces a huge amount of discontent and protest by riders, who are frequently organized in grassroots unions, such as the Riders Union (Bologna), CLAP (Paris), RidersxDerechos (Barcelona), and the IWGB (London). This effort at unionization was not limited to the local level but included multiple efforts to build transnational networks. A particular role has been played in this grassroots platform unionism by migrant workers, who are able to start organizing processes within their communities due to shared language, culture, and common social spaces.

## 4 Policies and Scenarios

The third and final point of our analysis is welfare. The innovations brought about by digital technologies are not limited to the spatial dimension of labour or its organization. Framing these transformations in terms of “platform capitalism” means that we look at them as part of a more general attempt to reshape society. For this reason, it is worth considering the effects of platformization on social protection. To be clear, we do not doubt that platforms convey opportunities. However, it is obvious that firms like Deliveroo or Uber pose large problems in terms of job continuity, income,



working conditions, freedom of association, and the right to collective bargaining. Furthermore, these issues do not regard just a handful of digital companies, but represent general and urgent topics of public debate.

As many studies have demonstrated, and as we hinted at above, platform labour is characterized by sharp discontinuities in employment, a lack or absence of social protection, barriers towards unionization, and a lack of work-life balance. We have already highlighted how the pandemic provided an opportunity to analyse platform capitalism in an intensified and “pure” way, which is also true for issues related to welfare. Some platform workers noted the lack of economic aid they received while they were unable to work, and others had to deal with the necessity of providing their own personal protection equipment. Behind this is the fact that platforms generally based their labour policies on the idea that they are simply a marketplace matching supply with demand, or, if anything, just taking advantage of independent associates. So, refusing any or much of the duties ascribed to an employer towards his/her employees. The narratives of the gig and sharing economy that supported the growth of these companies contributed to both the outsourcing of corporate responsibilities and the individualization of welfare.

The territorialization of platforms into urban spaces corresponds to a simultaneous de-territorialization of other functions and duties. This is what Mark Graham calls conjunctural geographies, meaning “a way of being simultaneously embedded and disembedded from the space-times they mediate. These geographies ultimately allow platforms to concentrate and exert power” (Graham, 2020, 454). These digital companies grew through profiting from gaps in statutory protective legislation or delays in applying it, together with the difficulties public decision-makers had in grasping the innovative elements of these production processes. We could argue that these companies produced a platform-based market which aspired to be fully self-regulating, replacing the legal system, and, in particular, mandatory labour regulation.

Obviously, some of the issues we are referring to are not exclusive to platform labour, and neither are they brand new. Labour outsourcing and the spread of autonomous labour are part of a larger re-organization of labour in the West that started with the end of Fordism, which was based on welfare as a form of redistribution mediating between capital and labour. Understanding the paradigm as an exception means ignoring the fact that precarity could be the norm in capitalist societies (Neilson & Rossiter, 2008). According to Jan Breman and Marcel van der Linden, «the real norm or standard in global capitalism is insecurity, informality or precariousness, and the Standard Employment Relationship is a historical phenomenon which had a deep impact in a limited part of the world for a relatively short period of time» (Breman & van der Linden, 2014, 920). Thus, we could consider platform capitalism a further step in the contemporary process of informalizing the economy.

However, this is not a one-way phenomenon. Workers and policymakers may influence the development of platform capitalism from a platform-based market to a fairer more regulated market. As we have stressed above, in recent years we have witnessed not only the success of a new business model but also the flourishing of innovative and unpredictable forms of unionization. In many cases, workers had to deal with the difficulty of identifying their colleagues and meeting up with them, compounded

by the anti-union approach of the companies and the presence of antitrust legislation that prohibits the formally self-employed from engaging in collective bargaining. Food delivery riders are undoubtedly the most well-known case due to the global dimension of the phenomenon and the radicality of the protests, but other attempts at the organization also emerged in other services, from Uber drivers to crowd workers.

At the same time, municipalities were the first public institutions to try to intervene in platform regulation, which was due to the urban dimension of the platform economy. These local attempts have been a fundamental testing ground for the development of state legislation (Italy, Spain) and supranational legislation (the EU “Directive on improving working conditions in platform work”). Readers will learn more about these experiences in the following chapters.

These protests and legislative initiatives generally revolve around the employed/self-employed dilemma: Should we understand platform labour as standard, or should we consider it as autonomous? Should we refer regulation initiatives to all platform workers or just to a specific segment? The dilemma’s solution is complicated by the impact of digital technologies and the fact that platform labour is spread across the urban space. One option has been to argue that platform labour is misclassified and is not in fact self-employment. Another option suggested has been to provide independent workers with a set of minimum labour protections, as some initiatives have attempted.

The crucial point for policymakers is to clarify if the contractual form of an employee should be considered a prerequisite for accessing social protection, or if, on the contrary, it would be more appropriate to call for protections even for those without an employment contract. From our point of view, whatever option is taken, it is crucial to ensure that platform workers have access to effective welfare. There is no doubt that national legislation historically guaranteed social protection just to standard workers. Nevertheless, this category has been deeply eroded over the years and we have already witnessed cases of platform workers being re-classified as employed without any real improvement in their working conditions.

Furthermore, our research demonstrated that each platform has its own way of urbanizing, not only its own conjunctural geography, but also its own subjectivity. Deliveroo riders and Airbnb hosts do not tell you the same story. This multiplication of types of labour is not only endured but is also sometimes enacted by workers according to personal or collective goals. In the end, the challenge seems to be to define universal forms of social protection capable of ensuring fair work for all without universalizing the Standard Employment Relationship of the Fordist paradigm. With this in mind, the PLUS project worked on two proposals: a charter of rights and the well-known issue of the universal basic income.

The charter of rights offers a cross-status protection, meaning that it is not anchored to a specific type of contract; its entitlement of a minimum level of protection applies to all people working through platforms irrespective of their employment status. The charter identifies a corpus of rights conceived of as modular, distinguishing between those to be assigned to “platform workers” and those to be assigned to a “person performing platform work”. The aim is not to propose a specific contract or law, but rather a model that can be tailored to particular legislative initiatives or

collective bargaining actions. This combines a universalistic basis of safeguards with a selective approach to social protection that takes into account the different organizational modalities of different platforms, and the different links between platforms and workers.

The universal basic income has instead been considered by PLUS as a tool for softening the impact of discontinuity and empowering collective bargaining. During our research, much attention has been focused on possible ways of funding it. This would clearly require overcoming ongoing policies on taxation based on fiscal residency towards a nexus between a business and a place based on the concept of “significant economic presence”—so subverting the conjunctural geographies built up by platforms that until now guaranteed them the presence into a territory without assuming its regulation; and this would require also overcoming the imposition of a withholding tax on so-called “digital transactions”—blurring the distinction between proper labour and non-labour activities. These are all topics that are covered in the following chapters. Taken together, we hope that they provide an integrated analysis of platform capitalism, combining theoretical analysis with grounded research.

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# Operations of Platforms. A Global Process in a Multipolar World



Sandro Mezzadra and Brett Neilson

The outbreak of the Covid-19 pandemic has engendered a crisis of mobility whose multiple dimensions have affected the movement of people and “stuff,” border regimes and logistical supply chains, the daily life of people in many parts of the world and the organization of labor (Mezzadra & Neilson, 2022). In such a conjuncture, digital platforms have emerged as key devices to manage the crisis, in such diverse fields as communication, food delivery, and e-commerce. The booming profits and stock exchange value of companies operating in such fields have been defining features of the economic implications of the pandemic conjuncture, while platforms have become increasingly visible in public discourse. Accordingly, digital platforms have come to figure prominently among those “systems underpinning social and economic life” whose maintenance and reproduction played a key role in defining “essential labor” during lockdowns in different parts of the world (Lakoff, 2020). The connection between platforms and mobility management has been apparent in the pandemic conjuncture, while new forms of risk and new hierarchies emerged between people who were often compelled to risk contagion to provide services and people who were allowed to work from home and could do that also due to those services. Working at the intersection between the domains of circulation and social reproduction, the operations of platforms prompt significant mutations of capital and labor, which deserve a detailed investigation.

At the same time, there is a need to note that the pandemic conjuncture was characterized by the proliferation of discourses lamenting or celebrating the end

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We expand on some of the topics addressed in this chapter in our book *The Rest and the West*, forthcoming from Verso.

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of globalization, which was even more the case in the wake of Russia's invasion of Ukraine on February 24, 2022. We have always been wary of the prevailing rhetoric of globalization, which emerged in the 1990s to sustain a specific project of globalization of capitalism under US leadership, and we have always privileged in our work a focus on what we call "actually existing global processes" (see Mezzadra & Neilson, 2013). While globalization conjures up the image of a smoothly working and tightly integrated system, global processes are not necessarily easy to combine and frictions, tensions, even conflicts among them are the rule rather than the exception. They may be homogeneous in their logic and operative "rationality," but when they "hit the ground" they may produce a huge deal of heterogeneity (see Mezzadra & Neilson, 2019). From this angle, what characterizes the current conjuncture is not that much the end of globalization, but rather a violent scramble to control the spaces within which global processes are played out. With Adam Tooze (2021, 294), we are convinced that we are living in a world that at least since the financial crisis of 2007/8 is shaped by a "centrifugal multipolarity" that builds the background of current conflicts. It is in this framework that in this chapter we analyze the operations of digital platforms, or maybe more precisely processes of platformization of capital and labor. Such processes are definitely global, they reshape economy, governance, and society across diverse geographical scales, while their impact is characterized by different degrees of heterogeneity. We start by fleshing out what we call the platform model, and by analyzing some of its implications for capital and labor. Then, following the call to "de-Westernize platform studies" (Davis & Xiao, 2021), we discuss the challenges it raises, and we conclude with an analysis of the processes of platformization in China.

## 1 The Platform Model

In what sense is it possible to talk of platforms in terms of a model? Digital platforms have a pronounced peculiarity, but a quick look to the past is helpful to answer this question. Besides its political meanings, referring to a program or a plan of action, in the twentieth century the word platform has been used in the economic domain mainly with respect to extraction, and in particular oil extraction ("oil platform," "offshore platform," and the like). This is an effective reminder of the extractive dimension of the operations of platforms that we will discuss later and that figures prominently in the platform model. To start our investigation, there is in any case a need to flesh out the peculiarity of digital platforms and of the abstract rationality underlying their operations. Platforms, Benjamin J. Bratton (2015, 44) writes in *The Stack*, "are generative mechanisms – engines that set the terms of participation according to fixed protocols (e.g., technical, discursive, formal protocols). They gain size and strength by mediating unplanned and even unplannable interactions." Interactions are the core business of digital platforms. Not only do these platforms aim to organize interactions but they also provide an infrastructure that allows the conversion of what appears unplanned, or even unplannable, into the elusive order of a plan.

Intermediation lies therefore at the heart of the working of digital platforms, while the generation of participative settings and the control of their governing protocols describe some of their most crucial operations. Once they are defined in this way, it is easy to see that platforms are characterized by a specific politics (see PLUS, 2022, 181–183) or, to follow Bratton (44), that they instantiate a “third institutional form, along with states and market.” Organizing interactions impinges on individual and collective behaviors, or “conducts” to put in the terms of Michel Foucault. And it facilitates their government, understood as a “conduct of conducts” (Foucault, 1994, 237). This is for us an important point considering the relevance of the platform model in shaping digital spaces and operations of capital across the globe today. The rationality of intermediation that builds the abstract connection among deeply heterogeneous platforms has a genealogy that needs to be stressed. While it is clear that platforms operating in the fields of transport and delivery are engaged in the execution of logistical tasks, the very rationality of intermediation itself has a logistical origin and imprint. Even from a technical point of view, issues of interoperability (the ability of different systems or devices to connect and communicate in coordinated ways) and intermodalism (the organization of transportation across more than one mode) can be mentioned as logistical antecedents of the rationality of intermediation implemented by digital platforms (see Cowen, 2014, 44).

It is important to stress the logistical genealogy of digital platforms, which can be traced back to processes of standardization and abstraction enabling the containerization of global transport. As an art of connection, logistics has developed at least since the 1970s a whole system of protocols and junctures that allow the infrastructural “intermediation” of the movement of multifarious resources, adapting to any kind of contingency and “bottlenecks” (see Grappi, 2016, 121). In doing so, logistics deploys a specific form of power, that includes the management of global space and time but also the governance of territories and populations (see Neilson, 2012). Precisely because of their logistical genealogy, digital platforms need to be investigated also from the angle of the power effects and logic encapsulated in the very technical core of their working. Moreover, seen in terms of the labor it employs and exploits, logistics has been over the last decades a crucial site of experimentation with systems of labor management. The use of “key performance indicators” (KPIs) to monitor and shape the labor of individuals and workforces, for instance, has anticipated the algorithmic management that is usually associated with the operations of digital platforms (Altenried, 2022). Once the latter are considered in a line of continuity with developments in logistics, the rationality of intermediation that characterizes them appears far from neutral and the issue of labor emerges as a key stake in their working.

It is with these aspects in mind that we speak of a platform model, even though we remain aware that this model finds a panoply of radically different instantiations in the real world. This variety derives not simply from the multifarious fields in which platforms operate, but also from the rationality and logic of their use. There is in fact no shortage of experiments with “platform cooperativism” (Scholz, 2016), while more generally labels like “gig” and “sharing economy” signal an emphasis on participation, sharing practices, and encounters that is indeed a key element of the

rhetoric employed by platforms and may well correspond to the motivations and even to the ethics of many “users.” Nevertheless, such emphasis has been rapidly obscured by the steady development of corporate platforms, which are clearly driven by the logic of valorization and accumulation of capital. A specific “platform capitalism” has taken shape over the last years (Cuppini et al., 2022). As Nick Srnicek (2017, 3) writes, corporate platforms are constantly seeking out “new avenues for profit, new markets, new commodities, and new means of exploitation.” In so doing, platforms have forged a new type of firm that proliferates across economic sectors, while the rationality of intermediation that sustains their operations has become the ground of a new expansion of the frontiers of capital within territories not yet open to the logics of valorization and accumulation.

To get an effective image of the ways in which platforms facilitate processes of capital valorization and accumulation, and are indeed structurally germane to them, one has only to add “value” to “size and strength” in the quote from Bratton that we discussed earlier, in which he writes that platforms “gain size and strength by mediating unplanned and even unplannable interactions.” Platform capitalism is driven in all its forms, from food delivery apps to huge infrastructural platforms like Google or Amazon, by a bulimic will to capture the widest possible spectrum of interactions, which become an eminent ground for processes of valorization of capital. Data extractivism and techniques of data mining are the main tools used in this endeavor, which aims to transform interactions into sources of value. Platforms rework the so-called “network effect,” a basic economic notion according to which the value of a product or service depends on the number of buyers or users (Srnicek, 2017, 46–47). In the case of platforms, this effect generates a powerful expansive and even monopolizing push, which leads some scholars to connect platform capitalism to the principle of “antimarket” that for the French historian Fernand Braudel runs through the whole history of modern capitalism (see Peck & Phillips, 2021).

## 2 Platformization

In the West platform capitalism emerged in the wake of the financial crisis of 2007/8, when the generalized low-interest rate environment built by central banks reduced the rate of return on a wide range of financial assets and prompted investors, so-called “venture capitalists,” to “turn to increasingly risky assets” (Srnicek, 2017, 30). In this environment, platforms emerged as a new business model, designed on the principle of intermediation between different user groups and on the infrastructural development that allows capturing and governing an expanding set of interactions for the sake of profit. The platform model, however, was far from remaining restricted to the West or from being simply “exported” by Western actors across countries and regions. In many parts of the world, including China, Russia, and Latin America, local companies played important roles in developing their own variants of the model, making their own contribution to a general process of platformization of economies and societies.



The concept of platformization is important here, since it allows us to grasp the expansive tendencies of the operations of digital platforms as well as the spillover effects of the platform model, its constitutive tendency to reshape economies, societies, and systems of governance beyond any sectoral divide (see Casilli & Posada, 2019). Speaking of platform capitalism implies acknowledging the relevance of this tendency, which blurs the boundaries between economy and other spheres of social and political life and indeed transforms those boundaries into crucial sites of capital's operations. Both the business model and the techniques of labor management instantiated by platforms rapidly expand beyond the realm of platform economy, while the political dimensions of the rationality of intermediation spur the emergence of new, data-driven forms of governance in many parts of the world. From this point of view, we can say that platformization is a global process both *intensively*, since it tends to reshape societies and economies, and *extensively*, since it is operative across boundaries and geographical scales.

The pace of this extensive spread of platformization as a global process is amazing. If one considers the momentous implications of the platform model for the organization of labor, to which we will return in a moment, it is striking to compare the decades long process of international transfer of such an important technical innovation as Frederick Taylor's "scientific management of labor" with the few years that it took for the platformization of labor, economy, and society to spread across regions and continents. This says something about the nature of global space and contemporary capitalism, which is shaped and driven by processes whose circulatory speed seems to annihilate borders. It also reflects the intersection of platformization with financialization, since many platform companies have tended to operate on low or even negative profit margins, preferring to invest revenues in expansion and growth, before publicly floating on financial markets, or, if already listed, seeking to increase share values. Although platforms have a homogenous core, what we have described as the platform model, as we anticipated the ways in which the model is implemented are profoundly heterogeneous and require analytical attention.

We already mentioned the huge variety of platforms operating even within a relatively homogenous space, the differences in size, sector, and working mode that create frictions and hierarchies among them. At the pinnacle of the Western platform world (that is far from united, considering the differences between the US and the European Union in the regulation of the digital realm) are the "Big Five," Alphabet-Google, Apple, Facebook (now Meta), Amazon, and Microsoft. These corporations are often defined as "infrastructural platforms," since they "form the heart of the ecosystem upon which many other platforms and apps can be built" (van Dijck et al., 2018, 13). While the peculiar position of these platforms is apparent in their position as gatekeepers of a wide variety of infrastructural services, ranging from search engines to data centers, the reference to infrastructures grasps an important although differentially implemented aspect of *all* digital platforms. It is another aspect of the platform model that demonstrates its entanglement with logics of power, with what Keller Easterling (2014) calls with respect to infrastructures "extrastatecraft."

Digital space today is increasingly traversed by infrastructural avenues designed and controlled by platforms. As in the case of the highway famously discussed

by Gilles Deleuze (2006, 322), such infrastructural avenues enable and intensify connectivity while at the same time multiplying “the means of control.” This allows us to qualify the meaning of intermediation in the operations of digital platforms. Far from being simply related to existing interactions, intermediation appears here to be structurally linked to the creation of new infrastructural avenues aimed at enhancing connectivity and creating new networks, although always following prescribed control protocols. As a mode of connection, an infrastructure (be it physical, digital, or connected to “care”) plays key roles in intermediation, and digital platforms become more and more powerful insofar as they become indispensable to specific forms of interaction, monopolizing the infrastructural conditions that enable it.

Connectivity, which also means social cooperation, emerges thus as a privileged terrain for the valorization of capital today (see Borghi, 2021), although this process is far from being smooth. The rationality of intermediation characteristic of platforms deploys its effects on the one hand by increasing connectivity, in a way that is consistent with its logistical genealogy. On the other hand, once it is appropriated by capitalist actors, intermediation “codes” that connectivity in a way that it transforms it into a source of value. But this appropriation is never fully accomplished, since it confronts multifarious frictions, tensions, and resistances. At the same time in which it corresponds to an entrenchment of capitalism, the spread of the platform model across diverse societal domains, including health, education, care, and labor brokerage, transforms the management of connectivity into a crucial field of struggle. In many parts of the world, profit-seeking corporate platforms confront processes of mobilization and experiments of self-management that aim to rework platforms in order to reinvent public policies (see for instance Huws, 2020).

As the Into the Black Box collective (2021, 699) writes, platforms are indeed battlefields, “in which trends of development unfold and with respect to which possible forms of alternative that do not bow to capitalism can take shape.” Platform workers have organized and struggled in many parts of the world in recent years, testing the limits of established unionism and inventing new forms of mobilization that work the boundary between circulation and reproduction (see for instance Woodcock, 2021 and Pirone, 2023). Grassroots unions have tested and expanded established forms of labor struggle and organizing, connecting with social and urban movements. While these struggles are vitally important, there is a need to stress that the operations of platforms do not regard only the toil and life of people working for them. If one considers the infrastructural aspects of those operations, it becomes clear that they aim to shape society in its entirety, reorganizing it according to their rationality and logic. As a “battlefield,” the operations of platforms and processes of platformization need therefore to be investigated at this societal level to map the multifarious forms of resistance they encounter.

This is why it makes sense to speak of a “platform society” (van Dijck et al., 2018), provided that we remain aware of the fact that such platformization is on the one hand a process that confronts a panoply of resistances and frictions, and on the other hand it constitutes a project of specific capitalist actors. Digital platforms produce their own operative spaces, which respond to the peculiarity of specific contexts while at the

same time being coordinated and synchronized at the level of the cloud upon which the existence of those spaces is predicated. Urban spaces in particular are recorded, reorganized, and in a way “doubled” by digital platforms, with implications that stretch far beyond the paradigmatic existence of single “smart cities” and transform the urban experience as such, while digital platforms themselves undergo a process of urbanization (see Cuppini, in this volume).

“Platform urbanism” is a label that attempts to grasp the impact of digital platforms at the urban scale, describing the multifarious ways in which the “collective intelligence generated by millions of daily interactions with global digital platforms” spurs and transforms the design, experience, and governance of cities (Barns, 2020, 13; see also Moertenboeck & Mooshammer, 2021). The web of encounters and circulatory practices that makes up a city is increasingly and selectively intermediated by platforms that come to play prominent roles in the very production of urban spaces, while the latter tend to stretch beyond any administrative definition of a “city.” The giant accumulation of data engendered by digital platforms enables forms of urban planning that take the form of a “reverse engineering” of the multifarious vectors that traverse the city. The spaces of platform urbanism are primarily spaces of circulation, striated by technological and social vectors that regulate the access to commodities and services. But they are also spaces in which social reproduction is increasingly entangled with processes of circulation and platform labor, as feminist scholars like Carlotta Benvegñù and Kambouri (2021) demonstrate by looking both at the increasing platformization of sectors like cleaning, domestic, and care work and at the composition of platform labor.

### 3 Platform Labor

Labor provides a crucial angle for the analysis of the global process of platformization. It is worth dwelling in detail on this topic considering that the mutations of labor connected to operations of platforms display a set of common characteristics that are translated in different ways onto different regional landscapes, always cutting across the life of huge segments of populations. The ways in which the platform model (and the working of specific platforms) have affected labor must be understood within the wider analytical framework of the societal dimensions of that model that we have outlined. This means that even beyond its growing statistical relevance platform labor does not regard only the condition of platform workers. It rather provides a lens for the analysis of a set of transformations that are reshaping labor relations writ large as well as the boundaries between labor and life, production and reproduction. Labor buyers as well as workers are complicit in and affected by these transformations, not least because their access to certain qualities and quantities of labor power can be pinned down or monopolized by platforms. This means that the labor relation itself is an interaction being changed by platformization positions the labor-buyer (whether the consumer who buys a meal on a food delivery platform or a firm who hires in a freelancer on a platform like Upwork) differently to the classical capitalist

who extracts surplus value through exploitation (Mckenzie, 2022). While this subject is definitely involved in labor exploitation, there is another second-order capitalist, the platform capitalist, who not only controls the terms of this exploitation but also frequently extracts a fee from the labor-buyer, in effect commodifying the labor relation. Additionally, the platform capitalist extracts data from the user activities of the labor-buyer as much as those of the labor-seller, and, in this respect, the labor-buyer is also a kind of platform worker.

It is important to stress that platform labor is not something that suddenly emerged out of the blue. Among its antecedents, Ursula Huws (2017) mentions the global stretching of “value chains” and related mutations of logistical labor, the dynamics of “freelance” labor markets, the growth of telework, and the development of ever more sophisticated processes of standardization and monitoring systems of labor performance. More generally, platform labor is usually considered a variant of “digital labor,” which is understood in extensive terms as the totality of the working activities related to and enabling processes of digitalization (see Fuchs, 2014) or in narrow terms as the aggregate of the figures whose work is controlled by digital technologies and among whose tasks data manipulation figures at least in part (see Casilli, 2020).

While we do not forget the first definition of “digital labor,” which importantly emphasizes the material conditions of the digital world (including the extraction of coltan, rare earths, and other “critical minerals” necessary to produce miniaturized digital devices), a definition of platform labor is necessarily predicated upon its narrower meaning. Simply put, platform labor refers to the multifarious working activities and tasks mediated by a digital platform. And although its composition is radically heterogeneous, research in different parts of the world have highlighted similar effects of the spread of the platform model in the field of labor, including the further erosion of traditional employment models and established labor rights, the prevalence of piece wage, the blurring of the boundary between formal and informal economy, processes of feminization and racialization, high turnover rates and participation of migrant labor (see Mezzadra, 2021; on the Italian case, see Pirone, 2023).

Although at a general level, the notion of a multiplication of labor (Mezzadra & Neilson, 2013) nicely captures the dynamics connected to the spread of platform labor across diverse geographical scales. Such multiplication encompasses, as Moritz Altenried (2022, 9) writes, “a specific heterogenization of labor geographies and labor mobility, a reconfiguration of the gendered division of labor, and the proliferation of flexible contractual forms such as short-term, subcontracted, freelance, and other forms of irregular employment.” The notion of a *Uberization* of labor is employed also in research on different figures of platform labor, for instance on riders working for Rappi in Mexico and Argentina. In his work, Federico de Stavola focuses attention on the temporality of labor relations in the experience of those riders, on the structure of the working day as well as on the pace and shifting schedules of the calls they receive. He concludes that the platform organizes “the supply of labor power according to the principles of *just-in-time* and *to-the-point* that encapsulate a logic of flows management and logistical accuracy” (De Stavola, 2022, 255).

Digital platforms clearly have different relations to labor, as it should be clear comparing a food delivery app with Airbnb, but also two big infrastructural platforms like Facebook (Meta) and Amazon. Nevertheless, the operations of platforms are all supported by the working of algorithms, which play differentiated but equally relevant roles in the management of labor (see again Altenried, 2022). There are lively debates on the relation of continuity or discontinuity between the algorithmic management of labor and Taylorism. Although we stress the pressures on working time and the standardization of tasks connected with the working of algorithms and related “flow charts,” we doubt that the reference to Taylorism enables an adequate political analysis of the peculiarity of techniques of control of cooperation in platform labor. The open environment in which such cooperation often takes place, the high degree of turnover of workers, and the unstable schedule of working tasks figure among the relevant factors in this regard (see Vecchi, 2017, 43–51). However, what matters more to us is that the algorithmic management of labor is not only a feature that characterizes platform labor but also increasingly reshapes labor relations beyond any specific sector, within the framework of wider processes of platformization. Simply put, algorithmic management does not simply regard one component of contemporary living labor.

Moreover, speaking of algorithmic management of labor is important to us also because it allows harking back to the question of data extractivism, upon which it is predicated. Algorithms have indeed important roles to play also in technologies of data mining that sustain the generation of value in platform capitalism. Indeed, looking at processes of valorization of platform capital data extractivism and the related forms of dispossession stand out as a key source of value besides the exploitation of labor. The extraction and processing of data correspond to a continuous activity of prospecting, scrutinizing, and coding social relations. Data, which encompass both the most intimate sphere of the individual (his or her health, for instance) and the totality of his or her social relations, become the basis of any platform operation, aiming at controlling workers or at making a profit. As Katherina Pistor (2020, 105) writes, “the worth of data does not lie in their exchange value but in the power they confer on data controllers.” Because this is a one-sided and even manipulative power, it poses fundamental challenges to the supposed formal equality of market participants. The value of data derives from processes of aggregation, scaling, and analysis, meaning that data harvesters extract value not by reselling data at a higher price but by selling their predictive power, which is at once a source of wealth and a means of governance.

While data stand out as a key source of value for platform capital, labor continues to provide another unescapable source. The composition of platform labor, as we already mentioned, is highly heterogeneous, often working the boundary between formal and informal economy, as well as between living and toiling beyond the so-called “standard labor relation” (see Mezzadra, 2021). Nonetheless, and this is no contradiction, it is a highly cooperative labor, although the cooperation is organized and appropriated by algorithms. The whole set of questions famously analyzed by Marx with respect to cooperation in the factory, including the “despotic” character of capital’s command on the collective power and productive force of workers (see

Marx, 1977, 450), reemerge here in an even intensified form in the face of the social stretching of labor. What we need to add is that platform labor does not refer to a fixed stock of workers employed by platforms, but rather to a floating multitude of potential workers whose availability shapes the management calculation of platforms (see De Stavola, 2022, 98; Mezzadra, 2023). We can again pick up a concept from Marx here and say that what he famously describes as the “industrial reserve army” (Marx, 1977, 784) becomes *internal* to the operations of digital platforms, insofar as they are structurally predicated on the availability of a number of workers in excess over the ones actually working for them (Vecchi, 2017, 42).

Summing up, the spread of platform labor spurs a process of generalization of labor relations beyond any standard regulation and in particular the proliferation of “grey zones” between wage labor and self-employment (Casilli, 2020, 86–89). The multiplication of contractual arrangements runs parallel to a diversification of labor tasks, that in many cases importantly also include a good deal of emotional and affective labor required to negotiate with customers the evaluation that nurtures platforms’ worker ranking systems. Platform labor is a radically heterogeneous multitude as far as its composition is concerned, and it is traversed by the imperative of productivity that aims at synchronizing different working tasks and forms of life for the sake of profit. The logistical rationality of *just-in-time* and *to-the-point* that shapes the supply of labor power fractures temporality and tends to explode the unity of the working day, blurring the boundary between production and reproduction, as feminist research underscores (Andrijasevic & Gregg, 2019; Benvegnù & Kambouri, 2021). These are effects that stretch well beyond platform labor in the narrow sense and rather spread across economies and societies through processes of platformization. Although they are connected to the platform model, their manifestations differ with respect to the heterogeneous conditions within which such processes of platformization are deployed. It is to this question that we now turn, focusing our analysis on China.

## 4 Platforming China

Although the impact of platforms on labor displays some similar aspects across world regions and continents, their institutional settings, technical workings, and societal positionings vary significantly. The call to “de-Westernize” platform studies importantly reflects this variegation of political, social, and even technological landscapes (Davis & Xiao, 2021). From China to India, Korea to Russia, Mexico to Brazil, we have been witnessing in recent years a spread of the platform model and a rapid growth of home-based online platforms that challenge the very possibility to take US or Western instances as a norm. In China, in particular, platforms like the ones generated by Alibaba, Baidu, and WeChat—even before the recent tightening of state control—had to negotiate their operations with “a plethora regulatory bodies, interventionist policies, compliance regimes, loan schemes, tax incentives, and censorship measures that helps steer the development of Chinese media” (107).

Over the last years, the rift between China and the West, which means above all the US, has become even deeper, with a surge of tensions and conflicts on such fields as trade, technology transfer, and even territorial disputes as the one concerning Taiwan. The multipolarity we discuss at the beginning of this chapter has become even more “centrifugal,” while territorial logics of confrontation and militarized struggle have been entrenched in the wake of Russia’s invasion of Ukraine. Such dynamics and conflicts have momentous implications also for the digital world and the infrastructures that enable its operations, as was for instance clear in 2020 when the US decided to stop for national security reasons the ambitious project of the Pacific Light Cable Network (PLCN), a 12.971 km undersea cable originally planned to connect California and Hong Kong and involving Facebook and Google in its design (de Seta, 2021, 2669–2671). These developments raise multiple challenges for recent approaches to digital governance, including the model of “the Stack,” as it was proposed by Benjamin H. Bratton in a book we mentioned at the beginning of this chapter. What Bratton stressed were in fact the radically transformative effects of “planetary-scale computation” on “the logics of political geography,” including sovereignty and territoriality (Bratton, 2015, 375).

The model of a unitary structure of the Stack appears even more problematic in a world where “centrifugal multipolarity” is ridden by conflicts and wars. While Bratton (2018) has responded to such a challenge by introducing the notion of “hemispheric Stacks,” the case of China is particularly interesting since the powerful processes of platformization that are ongoing in the country are predicated upon a complex web of infrastructural arrangements that effectively negotiate the tensions between territoriality and digitalization. The peculiarity of Chinese digital platforms depends to a great extent on the peculiarity of what Gabriele de Seta describes as “the Chinese Stack.” While he stresses that China’s digital space cannot be neatly superimposed on its national borders, because the moment of “stretching” beyond such borders is constitutive of the Chinese Stack, he is also keen to note that the state “incorporates features of the Stack as much as the Stack incorporates features of a state” (de Seta, 2021, 2685).

It is important to keep in mind the infrastructural arrangements described by de Seta to understand the fact that the platformization of Chinese labor and China’s economy has proceeded in rapid and powerful ways over the last years, reshaping working activities and modes of life. Kevin Lin and Pun Ngai (2021, 648) provide a detailed analysis of how “new platform-based companies have been taking over traditional economic activities, including logistics, and restructuring labor relations and the labor process.” They focus, against the background of a truck drivers’ strike, conducted mainly by internal and rural migrants across China in June 2018, on the emergence of mega apps like Yun Man Man. This app matches millions of truck drivers, mostly independent contractors, with shippers in ways that have profoundly transformed the transportation industry in the country. It is easy to imagine the implication of such a process of platformization for working lives, the related pressures on the boundaries between work and life, and consequently on regimes of social reproduction.

Importantly, Lin and Pun understand the 2018 strike as a key instance of new labor struggle within and against the process that in the wake of the Great Recession of 2007/8 has led China to become “the empire of logistics” (650). Such process is key both to the Communist Party’s new theory of “dual circulation,” which aims at boosting domestic consumption, and to the stretching of the economic space of China, which means to the global projection of its economic power through ambitious projects as the ones encapsulated in the Belt and Road Initiative. The notion of “infrastructural capitalism,” proposed by Lin and Ngai to grasp the present socio-economic formation in China, underscores “the production and expansion of intersecting physical and digital infrastructures” (651) which disrupt and transforms existing spatial arrangements and spurs rapid processes of platformization. The proliferation of infrastructural and operative spaces facilitates the operations of digital platforms across multiple economic and societal domains, while it also consolidates in China specific forms of infrastructural power.

While the example provided by Lin and Ngai regards the direct take-over of vast sections of logistics and related labor by platform-based companies, the effects on economy and labor of processes of platformization are much more diversified also in China and they are apparent even beyond the country’s metropolitan centers. Lulu Fan (2021) has for instance studied the impact of the growth of the market size of e-commerce sales on the garment industry. Focusing her research on the garment manufacturing and sales centers in the Zhejiang, Guangdong, and Jiangsu provinces, she details the profound transformations that have led to a “e-platform-driven flexible specialization” within an established and in a way historical industrial sector (34). A downsizing of productive activities has been met by a flexibilization and an informalization of employment relations, which has opened new opportunities for some skilled workers although in an atomized and volatile way. At the same time, Lulu Fan writes, two extremely informal employment arrangements have emerged as direct consequence of e-commerce. On the one hand, she refers to “the husband-and-wife workshops completing the processing of online clothing shop orders,” on the other hand to “the daily-wage workers participating in the production of factories or workshops as they adapt to the variability of orders” (36). This nexus between processes of platformization and informalization is an important aspect of the ways in which operations of platforms are transforming labor and economy in China, even beyond the garment industry.

As Lin and Pun argue, the financial crisis of 2007/8 was a key threshold for processes of platformization in China. It is well known that in response to the outside shock posed by the market falls in the West, China was able to muster great resources and energies, which allowed it not only to overcome the collapse of global trade in 2008 but also to start a process of economic reorganization and to renegotiate its interdependence with the US. In the aftermath of the crisis, Chinese ruling elites and the public became aware of the need to go beyond the export-oriented economic model that had characterized the development of the country in the previous two decades. The “factory of the world,” tested by powerful workers’ (which means again mainly internal migrants) struggles since the early 2000s, was not to be dismantled but rather reorganized and downsized in its strategic relevance according to the theory of “dual



circulation” that we mentioned earlier. An emphasis on innovation became ubiquitous in party rhetoric and state policies, while the weight of the state and family networks within the Chinese mixed economy was calibrated anew (Zhang & Lan, 2023). This was even more the case under the leadership of Xi Jinping, who became President of the PRC in 2013. In a recent book, Lin Zhang (2023) analyzes the effects of a campaign launched in 2014 by Premier Li Keqiang to advance “mass entrepreneurship and innovation,” speaking of a “massive nationwide surge in platform-based, VC-backed entrepreneurship” (12).

Focusing her analysis on Zhongguancun, “China’s Silicon Valley” in the northwest of Beijing, Lin Zhang maps the proliferation in the following years of IT companies and “grassroots” entrepreneurs within a vibrant laboratory of collective creativity within which the boundary between “entrepreneur” and “labor” is blurred—while the one between winners and losers remains firm. While the platform model drives many of the processes analyzed by Lin Zhang, Zhongguancun has also been the incubator of many digital platforms. However, what matters more to our investigation here is the continuity established between such metropolitan developments and how platformization has expanded into the Chinese countryside, reshaping rural economies, and creating new channels of communication with the cities. As anticipated in the case of the garment industry, e-commerce plays a key role here, instantiated by Alibaba’s Taobao platform. There is a huge amount of labor, Lin Zhang argues, sustaining and enabling the penetration of such digital platforms within rural economies. And it may be defined as platform labor, be it in the case of “*platform-based* labor” or in the case of “*platform-mediated* labor performed by those who manufacture, package, and deliver e-commerce goods” (105).

There is a double movement steering the spread of platform labor in rural settings in China, and Lin Zhang speaks of a convergence between “capitalism from above (digital platform expansion into rural areas) and capitalism from below (village and family-based e-commerce production)” (105). While there is no doubt that platformization is linked to the further entrenchment of capitalism in China as elsewhere in the world, the peculiarity of the Chinese “mixed economy” shapes also the operations of digital platforms. Lin Zhang makes an important, although by now widely acknowledged point when she writes that “although it formed a partial alliance with neoliberal forces, China’s state-led gradual integration into the global capitalist system and its entrenched rural/urban dual economic system” cannot be equated to the accomplishment of neoliberalization (234). The role of family networks is no less relevant than the one of the state, which is itself transformed and platformized but continues to play a relevant role also with respect to digital platforms—a role that oscillates between embeddedness, authoritarian control, and distortion of market mechanisms.

## 5 Conclusion

Although differences are important, the spread of platformization across China deploys many effects that are close to the ones we discussed with respect to the implementation of the platform model in the West. Nonetheless, differences are also palpable. It would be easy to make sense of such differences opposing to the ideal type of Western liberal market capitalism the authoritarian model of Chinese “state capitalism,” a concept that is experiencing a renaissance in the current conjuncture “as a marker of distortion and deviation from an ideal type” (Weber, 2023, 2). This is not the place to provide a full-fledged critical discussion of state capitalism, that, as Isabella Weber writes, shares many features (and many limits) with the equally “amorphous” concept of neoliberalism (1). Suffice it to say that digital platforms are characterized in the West by monopolizing tendencies that are difficult to combine with the model of market capitalism. Moreover, their operations deploy political effects (firstly in terms of government of conducts, as we discussed earlier in the chapter) that are more aptly grasped by such a concept like political capitalism, once it is theoretically reframed beyond its Weberian imprint that casts it once again as a deviation from an ideal type (see Holcombe, 2015).

With respect to China, what the literature working with the concept of state capitalism does not register is the panoply of processes of financialization and platformization that have profoundly transformed the Chinese state. Working with a different theoretical approach, encapsulated by the notion of the “new whole state system,” Lin Zhang and Tu Lan (2023) engage with technological innovation initiatives pursued by Tsinghua University, situating state-led financialization, platformization, and public–private fusions not only as ways of confronting domestic economic problems but also as responses to conjunctural challenges and geopolitical pressures. In this regard, they observe that many policy tools that have contributed to the financialization of the Chinese state, including university spinoffs, local government-funded high-tech zones, and state-led venture capital, have correlates across industrialized countries and developing states. Moreover, they suggest that because China’s economic strategies are, in part, driven by security concerns, “its innovation strategy resembles more that of the United States more than the strategies of East Asian developmental states such as South Korea” (217). This is a striking observation, that lends credence to the concept of political capitalism we just mentioned (in a different perspective, see also Aresu, 2020).

It is from this point of view that processes of platformization and operations of digital platforms in China must be investigated. What Gabriele de Seta calls the “Chinese Stack” provides an important viewpoint on the peculiarity of those processes and operations, which at the same time, it is worth repeating, resonate in important regards with analogous developments in the West and elsewhere in the world. Platformization builds a clear instance of the global processes that crisscross and spur present conditions of multipolarity. And it is important to remember that, as de Seta notes in the case of China, the state “incorporates features of the Stack as much as the Stack incorporates features of a state” (de Seta, 2021, 2685). This has

far-reaching implications for the very relation between territorialism and capitalism, which are instantiated by the stretching of the operative scope of the “Chinese Stack” well beyond the country’s boundaries. If one looks for instance at the “Digital Silk Road” project, part of the wider Belt and Road Initiative, it is easy to see that for instance the comprehensive agreement signed by Kazakhstan to spur the modernization and digitalization of the economy through access to inexpensive Chinese software and hardware includes processes of platformization in that country framed by the “Chinese Stack” (see Sukhankin, 2022).

Our focus on the “Chinese Stack” in this chapter does not aim to nurture a bipolar scenario, a kind of digital side of the “New Cold War” rhetoric that necessarily pits China against the US and the “West.” Nor is our mention of the Ukraine war meant to imply that we see Russia, the US, and China as the only countries worth discussing in the contemporary world. The opposite is the case. Facing current “centrifugal multipolarity,” we take seriously the possibility of a proliferation of infrastructural arrangements to sustain processes and spurts of platformization in different parts of the world. It is definitely possible to imagine a pluralization of digital governance, with the emergence, say, of an Indian Stack, a Brazilian (or even Latin American) Stack, and so forth. In each instantiation, digital governance would replicate the dialectic of homogenization and heterogenization that is constitutive of global processes and that we described with respect to China. It would also deploy forms of infrastructural power and complicate the relations (and the very nature) of territorialism to capitalism. But while such a scenario appears as realistic for the near future, the problem of establishing “global junctures” between different “Stacks” would remain open, and we can think through this problem according to the informatic and logistical model of interoperability that we mentioned above when discussing the genealogy of platforms. Whether or not such junctures will be established, and which form they will take, are open questions in the current conjuncture of war and proliferating regimes of war.

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# The Process of Valorization in the Platform Capitalism



Andrea Fumagalli

## Premise

In this essay, I use two different words to express the concept of productive human activity. The first is the Latin term ‘labor’, whose etymology means ‘pain’, ‘punishment’, ‘torture’, ‘suffering’. The second one is the term ‘opus’, again from Latin, which means creative activity that unleashes the human being’s capacity for doing and thinking. The concept of ‘labor’ is assimilable to the Marxian concept of ‘abstract labour’, it is the human activity that produces ‘exchange value’ and is the pivot around which capitalistic wealth creation evolves. By contrast, the concept of ‘opus’ is assimilable to the Marxian concept of ‘concrete labour’, able to produce ‘use value’ for the immediate satisfaction of human needs and dreams. In the capitalist system of production, ‘labour’ is remunerated and codified since it is considered ‘productive’, while ‘opus’ in most cases is free (unpaid) activity, not capable of generating wealth for the economic system (surplus value). Therefore, when referring to capitalist production, only the term ‘labour’ is used. Conversely, the term ‘opus’ together with the term ‘otium’ does not imply capitalist activity. The central theme of contemporary capitalism, which, according to some scholars, can be defined as bio-cognitive capitalism,<sup>1</sup> is precisely the attempt to overcome this dichotomy, deconstructing the capital-labour relationship as we have known it since the industrial and French revolution of the late eighteenth century until today.

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<sup>1</sup> The debate on the analysis of the valorisation and accumulation processes of capitalism in the new millennium is very wide-ranging and has given rise to different definitions: digital capitalism, platform capitalism, financial capitalism, cognitive capitalism, bio-cognitive capitalism. The term bio-cognitive capitalism is, in the writer’s opinion, the most comprehensive as it takes into account the role of life, social relations and knowledge as relevant inputs for wealth creation. This process of valorisation today tends increasingly to be structured through an organisation of platforms and thus gives rise to platform capitalism. For more details, see Fumagalli (2018a).

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# 1 Theoretical Background: The Mystery of Living Labour

It is often said that the evolution of capitalism will increasingly lead to less need of labour, to the point of talking about the end of labour.<sup>2</sup> In the opinion of social scientists, this hypothesis would be desirable, especially if we consider labour as a survival necessity and not as a free choice. Unfortunately, we do not find ourselves in this situation. In this essay we try to argue why far from being in a context of ‘the end of labour’ we are unfortunately in a context of ‘labour without end’. For this purpose, it is necessary to go back to the beginnings of economic thought, with the Smith’s distinction between ‘contained labour’ and ‘commanded labour’ (Smith, 2014). Contained labour is the labour required to produce a commodity. If the final price of the commodity corresponded only to contained labour, there would be no difference between value and price and the theory of (contained) labour-value, as later enunciated by Ricardo, would be incontrovertibly verified. Contained labour can be quantified afterwards, when the labour activity ends. Adam Smith, who had first identified ‘productive’ labour (the one which produces goods that are exchanged on the final market) as the source of the wealth of Nations, perceives that in the exchange between capital and labour, there is the purchase of labour-power, a purchase that is formally free and therefore subject to negotiation. This exchange between capital and labour defines commanded labour, whose value is given (more or less, depending on the bargaining power) by the wage-commodities that ultimately represent their remuneration. Smith intuits that in this exchange there is a quantity of labour that exceeds that exchanged between capital and labour, which exceeds the wage paid to the worker.

As Christian Marazzi writes:

This surplus quantity of labour is no longer contained in the commodities that form the wage, but is the result of the production process along which capital commands labour: commodity A buys commodity B (labour force, which is a commodity like any other), but commodity B produces more than the value for which it was paid, and this more, this surplus value, is originated not by the quantity of labour contained in the commodity-wage, but by the quantity of labour commanded throughout the production process (Marazzi, 2016, p. 34).

Labour in human history is expressed as contained labour, labour-force that produces use value.

It is only in capitalism, in the period when, not by chance, labour activity becomes formally free, that transformation of labour takes place as source of surplus value: there is a shift from contained labour to commanded labour, from past labour, deposited in wage-commodities, to satisfy the needs of the individual (precisely use value), to labour that produces surplus value. We can call this ‘surplus’ with the Marxian term of living labour.

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<sup>2</sup> The debate on the ‘supposed’ end of work began with Rifkin’s book of the same name (1994): *The End of Work: The Decline of the Global Labor Force and the Dawn of the Post-Market Era*. Debate which we will not go into here. On this subject, see also Bologna (2020). Note that Rifkin used the term ‘work’, while it would be more correct to use the term ‘labour’.

In other words, the worker:

realises his/her exchange value and alienates his/her use value (Marx, 1984, p. 228).

A use value (labour) that no longer belongs to him. Labour force thus creates a higher value, through the period of labour. This is what Marx calls surplus labour, i.e. availability of labour (working time) that is exclusive (free) to the capitalist. It is then his task to ensure that the surplus labour is transformed into surplus value, hence into monetary profit. It should be noted that if the cost of reproducing labour-power requires, for instance, only half a day's labour time when the actual working time of labour-force is a whole day, one is able to create a value double that of its reproduction. Formally, this is not 'an injustice against the seller' (the worker) (Marx, 2013, p. 228): he is paid at his exchange value, i.e. at the value of his reproduction: it is simply the law of exchange!

In fact, without violating any law, the capitalist calculates the value of labour-force not on the basis of its output (productivity), but on the cost necessary to reproduce it, as he would do with any other commodity.

Exploitation thus lies, in Marx's view, in capital's ability to translate what is the act of labour into the power of value, thanks to its 'power to dispose of an unpaid quantity of other people's labour' (Marx, 2013, p. 583). This discrepancy between the actual value of the labour performance and the eventual value of the commodity produced defines at the same time the degree of exploitation and alienation of labour (Fumagalli, 2015, p. 30).

In conclusion, in the exchange on the labour market, what is sold is the labour availability (labour act) which the capitalist is able to translate into labour capacity (labour-force) which he/she unilaterally appropriates through an act of force and violence. The worker, however, while alienating the exchange value of labour-force, remains the owner of his own labour capacity.

In the exchange of labour, there is thus not an actual exchange of property rights (power), but rather an exchange of availability (potency) (Fumagalli, 2015, p. 31). Herein lies the mystery of living labour.

## 2 Labour Force and Living Labour

Marx, unlike Smith and Ricardo, deepens the contradiction between the two forms of labour: contained labour and commanded labour. Marx's analysis is both dynamic and dialectical. Dynamic, because the time factor is fundamental to understanding the origin of value, dialectical because the value is the outcome of a social relationship in continuous metamorphosis.

There is neither the 'organizational-technological' determinism of Smith (the division of labour) nor the static nature of Ricardian analysis regarding income distribution. And even today, economic science, especially in its mainstream currents, has not learnt Marx's lesson of method, which instead constitutes its essence: political economy as a social and dynamic science, two attributes that feed off each other.



In Marx, time is historical time and labour time. When in *The Capital*, Marx analyses the ‘factory’, the unit of measurement of time is the working day in the factory. Here the problem of measurement comes up. But to address this problem, one must first ask: what is ‘labour’? Is it a private good or a public good? It must be remembered that in the capitalist system there are goods that do not presuppose an ownership state, either public (State) or private. We need to go beyond the legal dichotomy of private and public, which mainstream economic theory has difficulty recognising. These goods include labour, money, and knowledge. It is no coincidence that these are the three axes supporting the accumulation process of the current bio-economic and cognitive paradigm.

On the basis of these premises, labour can be considered neither a public good, since it is provided on an individual basis, nor a private good in the sense of bourgeois political economy.

Herein lies the ideology that Marx intends to unmask and that even more today, in times of bio-cognitive capitalism, needs to be even more unmasked. One can indeed argue that by definition labour is a private good (like knowledge), but one is forced to admit that it cannot be separated, in its entirety, from its owner and over which the owner can claim property rights. Since the abolition of slavery (i.e. the private ownership by an individual of the body of another individual), every individual is the owner of him/herself, his/her talent, his/her ability, and his/her willingness to work. What is then exchanged on the labour market is not labour in the traditional sense, i.e. the mere ability to work, but something else. And it is this something else that Marx questions when he distinguishes between ‘labour’ and ‘labour force’ (Ciccarelli, 2018).

The key point, introducing the concept of labour-force, is that the worker does not sell his/her labour to the capitalist, as mainstream economists or labour lawyers still believe, but rather himself/herself as a labour capacity, for a certain number of hours per day. In fact, as soon as the worker crosses the threshold of the workplace, his/her labour no longer belongs to him/her, it becomes the formal and substantial property of the capitalist. From this point of view, in the exchange of labour, Marx states, it remains hidden that the worker does not generically sell labour, but rather his or her labour-force, i.e. his or her labour capacity.

Christian Marazzi, echoing the analyses of Christophe Dejours (Dejours, 2013), defines living labour as a gap, the gap that exists between what is prescribed and what is real. In this definition, living labour ‘is defined as what the subject has to add to the prescriptions in order to be able to achieve the goals he has been assigned’ (Marazzi, 2016, p. 36).

It follows from this definition that living labour is an heterodirected activity, where prescriptions are present. These prescriptions require knowledge, which can give rise to some form of measurement. But this is not taken for granted, because it depends on the type of labour performance and how this performance relates to the machine.

The outcome of the labour process (the ‘real’) requires measurement, which is not always possible, depending on the degree of intangibility of the final output.

As is well known, this was remedied by using time as a unit of value. Thus we move, with Marx, from the valuation of labour to the valuation of labour time, ‘as

if the two expressions were equivalent' (Marazzi, 2016, p. 37). But this is not true. It is an arbitrary reasoning based on the abstraction of labour in its concreteness, as a subjective experience, which tends to be incommensurable. This (logical-mental) abstraction does not allow us to grasp the essentials of real labour, of living labour, its being a subjective activity, composed of skill, repetitiveness, suffering, creativity, intelligence, manual dexterity, that is, of all those tacit subjective resources that need to be activated to manage the gap between the prescribed and the real.

As long as we speak of labour-force within a tangible-material production (thus endowed with physical-conventional units of measurement)—the production of the factory system in Marx's time—the abstraction of labour could be possible and labour time could serve as an invariant unit of measurement for different labour performances. However, this is only valid up to a point, since in any case the problem of transforming the values of physical commodities into prices was not completely solvable, even by resorting to a monetary theory of labour-value (Bellofiore, 1984; Lipietz, 1977).

With the transition to bio-cognitive and platform capitalism and the differentiated development of labour performance in favour of greater heterogeneity of the labour-force, the concept of abstract labour becomes more difficult to define. The labour-force, whose remuneration corresponds to the set of wage-commodities necessary for its reproduction, creates surplus value by transforming itself into living labour, which cannot be defined 'abstractly'.

This transformation has important implications.

The first concerns the labour-value theory itself. The transformation of contained (employed) labour into living labour undermines the classical labour-value theory, according to which commodities are exchanged on the basis of the quantities of labour contained in them.

Since living labour is the engine of economic growth, it would be 'like saying that there is no economic growth without a crisis of the labour theory of value, without a crisis of exchange between equivalents' (Marazzi, 2016, p. 35). In this regard, Claudio Napoleoni writes:

It would be [...] of the highest interest to see whether the contradiction into which the labour-value theory falls is nothing other than the consequence of the fact that this theory uncritically suffers from a real contradiction, which takes place between the market and a product distribution based on surplus. If it were possible to make this demonstration, it would appear clear that the theoretical relevance of the labour-value theory lies precisely in the contradiction to which it leads; and while it seems natural that Ricardo should try to reconcile the irreconcilable [...], it seems on the other hand surprising that the same attempt was made by Marx, at least in the sense that if he had been fully consistent with the revolutionary content of his thought, he would have had to declare the contradiction openly, and would thus [...] have been able [...] to construct a theory of the crisis far more well-founded than he was actually able to give it (Napoleoni, 1981, p. 19).

Secondly, the distinction between abstract and concrete labour also comes into crisis. At the very moment when living labour becomes the pivot on which the contemporary process of valorization revolves and becomes incommensurable, abstract labour, insofar as it is no longer measurable and homogeneous, becomes a theoretical category that is no longer able to fully represent actual labour performance.

We will discuss this aspect in the following section. Here it suffices for us to say that the concept of living labour is a critical factor of the labour-value theory but does not disconfirm it.

As we shall see, the central question has to do with the issue of the remuneration of labour. The remuneration of labour performance is always in some way related to the value of the goods produced, even if mainstream General Economic Equilibrium theory tries to deny this statement. But today we are witnessing a new fact: the value produced by living labour is increasingly becoming unmeasurable, at least with the traditional units of measurement. We are witnessing a paradox: the more the factors of production have to do with human life and present elements of non-rivalry and intangibility (thus they are relatively abundant), the more the traditional theory of value-utility, which defines price only as an index of scarcity, loses its meaning and explanatory validity. It follows that only labour-value theory is able, today more than ever, in times of intangible and bio-cognitive accumulation, to grasp the nature and essence of the valorisation process. But at the very moment when the labour-value theory is transformed into a life-value theory (Fumagalli & Morini, 2011), the question of measurement arises. Today, the theory of value is in crisis not because labour (i.e. its exploitation), having become living labour, is no longer the source of capitalist value, but because such value is not measurable. Put in another way: the more the subsumption of labour to capital is no longer, Marxianly speaking, only real and formal but becomes vital (thus increasing the intensity of the exploitation essay) (Fumagalli, 2019), the more the determination of its value becomes aleatory and discretionary. Carlo Vercellone sums up the problem in this way:

The increase in power of the cognitive dimension of labour determines, in this sense, a double crisis of the law of value. A crisis of measurement, since cognitive work is an activity that develops over the whole of life time. The time spent and certified in the enterprise is generally only a fraction of the actual social working time. In the new capitalism, the main source of value creation is, in fact, increasingly upstream or downstream of the sphere of direct production and the universe of enterprises. In this framework, not only are the ways in which work is organised less and less prescriptive, but the sources of competitiveness increasingly depend on productive social cooperation that develops outside the company boundaries. The result is also that profit, like rent, increasingly rests on mechanisms of appropriation of surplus value performed from a relationship of externality of capital with respect to the organisation of production. A crisis of control, since the encounter between diffuse intellectuality and information and communication technologies makes the collective re-appropriation of labour and the means of production a plausible prospect again, potentially generating conflicts concerning the very self-determination of the organisation of labour and the social aims of production. Thus, in many productive activities, the Taylorist model of job prescription gives way to that of subjectivity prescription. At the same time, as in the production of value, control over labour is increasingly moving downstream and upstream of the act of production itself, making total control over the time and behaviour of wage earners the central issue at stake. It takes the form of the multiplication of a whole panoply of instruments for evaluating the subjectivity of the worker and his conformity to the values of the company, often inducing what in psychology are called paradoxical injunctions (Vercellone, 2013).

In conclusion, the measurement crisis of the labour theory of value occurs precisely when it remains the only one able to explain the origin of exchange value. This apparent paradox stems from the fact that in bio-cognitive and platform capitalism, the inputs that underpin production activity and define the productive commons—knowledge, relationships, and social reproduction—are not subject to relative scarcity. Consequently, the theory of value-utility, which, since the second half of the nineteenth century, has represented the alternative to the labour-value theory, is no longer valid.

Neoclassical valorisation, now dominant in neoliberal thinking, takes place outside the sphere of production: it is in fact at the moment of exchange, when supply and demand intersect, that price, the only indicator of value, is determined. Since the choices of production (supply) and consumption (demand) depend on individual subjective preferences based on the degree of utility each person attributes to a given commodity, the neo-classical theory of value-utility is a theory of individual subjectivity.<sup>3</sup>

The labour theory of value, on the other hand, in its Ricardian formulation, taken up by Marx, is an objective theory of value, which prescind from individual or collective subjectivity.

This is why it is measurable, once a suitable unit of measurement has been identified. We have already discussed how such a unit of measure is defined by the temporal unit, and we have also argued how this temporal measure is increasingly inadequate in bio-cognitive and platform capitalism, where production increasingly takes on bio-political and subjective forms, at a time when learning, relation and social re/production constitute its foundations. If the theory of value-utility no longer makes sense today, the theory of labour-value needs to be revised in order to formulate a subjective theory of labour-value.

Herein lies the challenge before us.

### **3 Some Implications of the Non-measurability of Living Labour and the Hybridisation of Abstract and Concrete Labour: Network Value and Unpaid Labour**

Let us start with some stylised facts.

In European economies (Eurostat data, 2020), the manufacturing sector has been losing ground over the last twenty-five years (1992–2017). In Italy, it fell from 18.5 to 14.7% of GDP. A similar process occurred in the other two largest EU economies: Germany went from 23.5 to 20.6% and France from 15.6 to 10.2%.

In the same period, on the other hand, the share of services increased (whose added value already had a significantly higher impact on GDP than manufacturing since 1992, both in Italy, France, and Germany).

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<sup>3</sup> Obviously, as far as the human sphere of economic action is concerned.

In Italy its weight on GDP rose from 60.9 to 66.3%, in Germany from 57.3 to 61.9%, in France from 63.6 to 70.2%. In the United States, the share of manufacturing is even lower and the share of services reaches almost 73% of the total GDP. According to the World Bank, in China, the weight of manufacturing is steadily declining in China's total GDP, until 26.7% in 2019.

These data tell us that wealth production is no longer solely and exclusively based on material production, but is increasingly based on elements of immateriality, i.e. on intangible 'goods', which are difficult to measure and quantify, and directly deriving from the use of the human beings' faculties, relations, feelings and brains.

Today, the highest value-added sectors are less and less related to the production of physical goods but are linked to the production of services. But increasingly, these are advanced services for business and increasingly technological consumption: platform capitalism (Bin-Italia, 2017, 2019; Gambetta, 2018; Morozov, 2013; Srnicek, 2016; Vecchi, 2020; Zuboff, 2018).

From a technological point of view, in recent years we have witnessed an acceleration of technical progress, with particular regard to technologies that have to do with biological life ( $\zeta\omega\eta$ ) and relational life ( $\beta\iota\omicron\varsigma$ ), on the one hand, and with the processes of automation and speeding up of computation, thanks to algorithmic technologies, on the other hand.

This innovative capacity moves mainly in three directions.

The first has to do with the technologies of life, biotechnologies. Ever since the discovery at the beginning of the new millennium that there is an alphabet of life (decryption of the human genome) and then in 2012 it was discovered how to decipher and alter it (the discovery of the molecular scissors CRISPR/Cas9), we are faced with a swarm of innovations that ultimately open the field to the possibility of creating artificial living material in the laboratory. These are revolutionary discoveries with an impact similar to one of the periodic tables of the natural elements by the Russian chemist Mendeleev (1897 [1871]), which gave impetus to the development of inorganic chemistry and the possibility of creating artificial materials, without which the Taylorist paradigm would never have taken off.

At the same time, thanks to algorithmic technology and nano-technologies, the last few years have seen an exponential increase in the capacity to calculate, manage, manipulate, and organise an increasing amount of data and information in ever smaller spaces, leading to the creation of cloud and big data technologies, thanks to which platform capitalism can flourish. This dynamic has also significantly affected the labour organisation and productive and financial governance.

The third trend, on the other hand, concerns the development of hybrid human-machine technologies, today increasingly present in the semi-automated learning processes of machine learning and deep-learning technologies, capable of creating the conditions for 'intelligent' automation, the short-term perspective of which is mainly represented by artificial intelligence (Internet of Thing, Industry 4.0, etc.).

These three trends are synergetic and feed off each other, thus fostering the development of an innovation cluster, typical of the emergence of a new technological paradigm.

This potential new technological paradigm profoundly affects the processes of organising production and, above all, living labour. The joint use of algorithmic and computational technologies allows the creation of technological infrastructures which play the role of intermediary between supply and demand, with reference to communicative and relational services. Thus, the new model of organising intangible production that we now call a platform takes hold. We can now say that the 'platform' model has penetrated as an organisational mode in all strategic sectors of contemporary accumulation, not only in the area of advanced services related to symbolic, relational, advertising, design, etc. production, but also in more traditional manufacturing activities and logistics.

Platforms thus represent modes of organisation capable of putting life to value, even without necessarily going through labour intermediation. This is an organisational innovation of the same importance as the scientific organisation of labour represented by the assembly line in the Taylorist factory. The heart of the organisation lies in the function of 'business intelligence', capable of transforming data and information from everyday life, often freely offered as use value, into an output that is exchanged on the market (exchange value), capable of producing profit and income.<sup>4</sup>

As far as labour is concerned, in platforms it is often invisible, performed at home, partly piecework and in any case underpaid, without any contractual form. Logistics labour does not experience better conditions. Agricultural production in many cases exploits migrant labour, often illegal and without rights, in conditions of semi-slavery.

A picture that flies in the face of the concept of 'smart' work, which has nothing 'smart' about it at all.

The situation does not change much when labour performance becomes intertwined with knowledge, expertise, and knowledge, i.e. becomes more 'intellectual', where relational, communication and cerebral activity become more and more co-present and important. It is this idea that fuels the illusion of 'good work'. Such activities require training, skills, and attention: the separation of mind and arms, typical of Taylorist performance, is reduced to the point of developing a combination of routines and intense active participation in the production cycle.

To the traditional division of labour by tasks is added the cognitive division of knowledge and skills, increasing the degree of subjection of the worker to the times of the production process.

This subjection is no longer imposed in a disciplinary manner by a direct command, but most of the time is introjected and developed through forms of conditioning and social control. The resulting contractual individualism represents the legal institutional framework, within which the process of emulation and individual competition tends to become the guiding line of labour behaviour.

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<sup>4</sup> See for more detail the following paragraph.

These transformations and the increasing fragmentation and heterogeneity of labour performance favour the emergence of new modes of remuneration. In addition to the traditional wage, there are, in monetary terms, withholding tax, job on commission, and remuneration in instalments. But non-monetary forms of remuneration are also spreading, linked to the symbolic nature deriving from the unfolding of that ‘economy of the promise’ (Bascetta, 2015), which, in the name of an unspecified future advantage, induces people to perform labour for free.

The phenomenon of unpaid labour is booming. We also refer to the figure of the ‘prosumer’, i.e. the user of a service provided by a technological platform who is forced to provide a series of information and data, which, after being given away for free, are used for profiling, surveillance, and advertising activities. Our daily acts, aimed at satisfying the needs of that moment (use value), boxed in an application, become the basis on which to graft the process of enhancing our own lives, for the benefit of a few (exchange value).

Our individual lives produce wealth but this wealth does not belong to us.

All this takes place in the presence of an increase in the degree of income precariousness of the majority of workers. The blackmail of need, which ensured that the harsh discipline of the factory was accepted in material production, continues to play, unperturbed, the historical role that underlies class division and the subordination of labour to capital, even in completely new and novel forms.

## 4 Final Considerations #1

Zygmunt Bauman (2000) spoke of liquid society and liquid modernity. Today we should speak of a liquid economy. The classical dichotomies on which the development of the Fordist economic paradigm was based have now been liquefied.

We are not just referring to the disappearance of the separation between labour time and living time, between production and consumption, between production and reproduction, between wages and income (Fumagalli, 2007), but to the emergence of new forms of hybridisation. The first has to do with the labour-life relationship, the second with the human-machine relationship.

When life, in its immediacy, is put to value and transformed into a commodity as happens with labour-force and is thus transformed into life-force, the distinction between concrete labour, capable of producing use value, and abstract labour, which produces exchange value, loses its meaning. The Smithian distinction between productive and unproductive labour also tends to disappear. Everything becomes productive, starting with the acts of everyday life.

Herein lies the mystery of endless labour performance.

The most immediate exemplification is *network value* (Fumagalli, 2018b). The more the acts of everyday life are intermediated by a technological infrastructure (app), the more they are monitored and able to produce data. These data at the very moment they are provided (e.g. the request for information) are functional to the immediate satisfaction of a need and/or desire. It is concrete labour. They are

therefore presented as use value. But thanks to big data technologies, the technological platform, on which these data are uploaded, transforms the data into exchange value, output to be valued in the relevant outlet markets, the outcome of an abstract labour process. This happens thanks to algorithmic technologies managed by the new managerial function defined ‘business intelligence’ (Davempont, 2014). The functions of collecting, manipulating, classifying, and selling constitute the new intangible production cycle, a new highly automated assembly line where human–machine hybridisation is able to develop synergistically.

The life cycle of Big Data Management by the following nexus: capture → organise → integrate → analyse → act.

It is worth dwelling on the two operations of ‘organising’ and ‘integrating’. These are two operations that only in recent years have been able to reach a certain degree of sophistication, thanks to the technological evolution of 2nd generation algorithms. The organisation and integration of data is the basis for the production of network value. It is the production aspect of exchange value, while ‘analysis’ and ‘action’ represent its commercialisation, i.e. its monetary realisation on the output markets.

It is in fact in these two phases that ‘platform capitalism’ begins to structure itself. After all, platforms allow a new composition of capital (not labour!) capable of managing in an increasingly automated way a process of data division according to the commercial use that can be derived from it. It is based on the more or less conscious participation of individual users, now transformed into *prosumers*. It is in fact the users of the various platforms, whether they are aimed at providing information to satisfy their desires or virtual spaces for communication, play and the development of relationships, who provide the raw material that is then subsumed into the productive capitalist organisation.

If the collection of ‘our’ data falls within a process of extraction (formal subsumption), their transformation into exchange value capable of generating a network value is comparable to a process of real subsumption, also characterised not only by the ‘thinking’ algorithms, but also by the click-workers’ labour-force (Casilli, 2019).

The two forms of subsumption only allow the valorization of life acts if they operate.

together. They cannot operate without each other. This is why it is appropriate to define this joint process with the term life subsumption (Fumagalli, 2019, Chap. 3).

When life is subsumed to capital, it becomes productive for capital but unproductive for the individual. Living labour is betrayed. Only the part of life that is certified as productive by the prevailing norms and the needs of capital is recognised as such and thus somehow remunerated.

The other parts of life, dedicated to *otium*, *opus*, and play, are not considered productive by the norms inherited from Fordist labour law and the labour bargaining system. This is why they are not remunerated, even though they constitute by far the main source of contemporary surplus value, as the main source of living labour.



## 5 Final Considerations #2

The syndemic crisis shaking Europe and the world economy is not, despite its seemingly accidental nature, an exogenous shock, but the sign of a systemic crisis of the productivist logic of contemporary capitalism and its increasing commodification of life and of the environment.

It shows the structural incompatibility of this mode of accumulation with the very conditions of the reproduction of society, whether it be the ecological balances of the planet or the devastation of the productions of the human through the human (health system, care work, education, research) that constitute the material basis of the bio-cognitive and platform capitalism. In its dramatic nature, the current crisis reveals all the misery of the present, but also the richness of the possibilities (Gorz, 1997) inherent in the historical bifurcation we are facing.

It requires us to think not only of short-term policies to counter, as a matter of urgency, the spiral that would lead from the collapse of production and incomes to that of the financial system, but also of structural reforms that could pave the way for another model of organising the economy and society. The very founding questions of political economy are thus put back on the table of democratic deliberation: what and how to produce? To satisfy what needs? On the basis of which rules of income distribution between individuals and social classes?

It is in this context that the issue of a new welfare adapted to the new valorization mechanisms of bio-cognitive platform capitalism is inscribed.

This objective has not always been considered of central interest both in the mainstream politics and also in alternative economic thought. This refractoriness limits the welfare debate to the dichotomy between the idea of a welfare in line with the neoliberal approach of workfare (seasoned, more or less, with subsidiarity) and the nostalgic defence of Keynesian state welfare.

In both cases, it is an idea of welfare that does not take into account that today we should address the two main elements that characterise the current economic phase:

- precarity and debt as devices of social control and domination, capable of fueling the vital subsumption of labour to capital;
- the re-appropriation (in terms of distribution and not just re-distribution) of wealth from the valued life and general intellect of individuals.

The existence of learning and network economies are the variables behind productivity gains: a productivity that increasingly comes from the exploitation of both common and public goods, resulting from the social cooperation of humankind (such as education, health, knowledge, space, social relations, etc.). It follows that, in this context, a redefinition of welfare policies should be able to respond to the following trade-off: the negative relationship between the precariousness of life and social cooperation, life itself, as a source of value. More specifically, it is necessary to remunerate social cooperation, on the one hand, and to foster forms of social production, on the other.

These two aspects form the basis of what some scholars refer to as *Commonfare* or welfare of the commonwealth (General Intellect, 2018). The first pillar of the commonfare proposal concerns the remuneration of social cooperation through the introduction, at the individual level, of an unconditional basic income for all those who are residents (and not only citizens) in the territory regardless of their professional and civic status. Basic income should be understood as a kind of monetary compensation (remuneration) for that living labour and productive time that are not certified by current industrial relations. It occurs at the primary level of income distribution (it is a primary income) (Fumagalli, 2016, Vercellone), therefore it cannot be considered as a welfare intervention, according to the typical logic of workfare (in a selective way) and Keynesian public welfare (in a universal way). Moreover, this measure should be accompanied by the introduction of a minimum wage, in order to avoid a substitution effect (dumping) between basic income and wages in favour of firms and to the detriment of the workers. The basic income together with the minimum wage makes possible to broaden the range of choices in the labour market, i.e. to refuse an undesirable and/or underpaid and/or precarious job and thus affect the working conditions themselves. The unconditional possibility of refusing job opens up perspectives of liberation that go far beyond the mere measure of a fair distribution. This is a first step that, however, does not solve, if only partially, the problem of the disproportionate value of living labour and the hybridization between concrete and abstract labour. In fact, the problem remains open as to what is the fair remuneration of the different vital subjectivities put to value. In this regard, we limit ourselves to observing that basic income, in addition to being unconditional (free from behavioural obligations), must be of a level such as to allow the exercise of the right of self-determination (minimum value) and compatible with the level of income of the territory (maximum value). The second pillar concerns the management of common goods. The idea of *Commonfare* implies, as a prerequisite, the social re-appropriation of the profits derived from the exploitation of life (i.e. the set of human activities and faculties that promote social reproduction and the cognitive processes of learning and relationships) and common goods that underpin today's accumulation. This re-appropriation does not necessarily require that private property must become public (in the sense of 'state').

These two aspects—among others—point to a prospect of overcoming the productivist logic of capitalist matrix, even in its more immaterial dimension of valorization. In this context, it is possible, thanks to the growth of the 'immaterial' sectors, to actually think of alternative forms of production, compatible with environmental constraints, respectful of human nature, and above all aimed at valorizing the activity of creative *otium* and *opus* against today's dictatorship/constraint of labour: a dictatorship composed of performativity, efficiency, productivism as an end in itself and capital, with the consequent destruction of social and natural ties.

In short, *Commonfare* is also adapted to the ecological constraints that have arisen after more than 50 years of Taylorist productivism. And this can be done along two lines. The first has to do directly with a 'common' management of environmental goods, which are subject to scarcity, from air, to water, to nature in general (forests, animals, seas, etc.). The second derives from the implementation of an unconditional

basic income, which, in the name of the right to choose and self-determination of one's own life, can favour the production of eco-friendly use value to the detriment of the production of exchange value that is more harmful to the environmental balance. We are not referring here to the theories of degrowth, which, today, clash with the fact that the principle of scarcity is no more operating when the dimension of life today is at the basis of the processes of accumulation and exploitation and therefore of valorization. Welfare is today the element that condenses these issues as a mode of production. Is it possible to think of an alternative model of production and life?

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# Out of the Standard. Towards a Global Approach to Platform Labour



Maurilio Pirone

This chapter challenges a taken-for-granted split in the platform critical studies: the analysis of platform labour in terms of informalization in the Global North and in terms of formalization in the Global South. Far from totally denying regional specificities in the territorialization of platform capitalism, the author tries to build a bridge between contexts defining a common logic operating through conjunctural geographies: the specific labour process implemented by platforms requires an active engagement by living labour in terms of self-entrepreneurship. This engagement can be produced through the disruption of standard labour as well as through the commodification of informal labour. In both cases, workers have to deal with an acquired dependence from the platform infrastructure. This logic, nevertheless, does not preclude the possibility to overturn self-entrepreneurialism into resistances and exit strategies.

## 1 Local Investigations and Global Dimension

Considered mainly as a business model, a larger part of the critical studies on digital platforms focused on value production and the role that living labour has within it. There has been a flourishing of investigations on finance and data accumulation by big corporations (Birch et al., 2021; Klinge et al., 2022), or on labour management and working conditions in lean platforms or crowdworking (Pulignano & Franke, 2022; Tubaro et al., 2020). In particular, investigations on the labour process in platform

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capitalism adopted a situated approach focused on (the comparison between) specific case-studies. So nowadays, we have a puzzle of studies ranging from Africa to Latin America, from Europe to Asia that embrace the multiplication of labour in platform capitalism.

Nevertheless, all the pieces of this puzzle seem scattered on the ground, they still do not fit in a whole picture. Comparative studies often focus on differences, with less attention on the capacity by platform businesses to spread and operate at the global level. The appreciation of local specificities, clearly important to understand the effective working conditions in a context, risks being detrimental to the definition of more general commonalities in both platforms' expansion and operation.

In particular, there is an apparent gap between the so-called Global North and Global South. Platforms are generally perceived as a driver of formalization and—sometimes—of improvement of the labour market in the Global South, while considered putting pressure on labour rights in the Global North. For this reason, in the first case platform labour has been depicted as an opportunity against poverty, while in the second case it is more reported as a further path of a longer-time historical process towards precarization.

On the other side, platforms have undoubtedly reached a global dimension. It is not just a matter of a business model adopted by many companies all around the globe, what is relevant is also how same companies operate and compete globally and how living labour adapt its strategies to such transnational dimension. Even if it is quite accepted that Silicon Valley represented the place of birth of first platform companies and even if it is clear that they developed partially different business models (Boyer, 2021) reshaping principles already adopted by other labour paradigms (Piletić, 2023; Steinberg, 2021), these pioneering experiences have been replicated and innovated by other companies all around the world. We may refer to transportation sector as illustrative. Uber is undoubtedly one of the companies that disrupted the ride-hailing and food delivery services, but its “digital twins” spread all around the world, like Bolt (founded in Estonia), Ola (India-based) or Didi (China). At the same time, some companies expanded their operations beyond the birth country with an international projection (Stallkamp & Schotter, 2021). Uber operates in more than 10,000 cities in about 70 countries, Bolt embrace about 50 countries from Lebanon to Tanzania, Ola serves more than 250 cities across India, Australia, New Zealand, and the UK, while DiDi currently operates in China, Mexico, Colombia, Chile, Costa Rica, Panamá, Argentina, Ecuador, Perú, New Zealand, Australia, Brazil, and Dominican Republic.<sup>1</sup> The geographical distribution of the platforms' operations is not homogeneous, these companies develop strategies to select promising markets and try to establish there. This is not a guarantee about their success and there are cases where companies preferred to quit a country to focus more on others, e.g., Uber shut down in Israel or

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<sup>1</sup> All the data are taken from Uber, Bolt, Didi and Ola official websites, consulted the 31st of August 2023.

Didi in South Africa when they acknowledged it was impossible to gain a leading position in these countries. What I want to stress, anyway, is that there is a growing number of services that are platformized in a similar way all around the globe by a quite limited group of companies that started to serve one country and then expanded at the international level adapting to different labour and legal regimes (for a detailed picture about the global distribution of platform capitalism see ILO, 2021, Chap. 1).

These premises lead us to the questions I will consider as the starting point of this chapter: How is it possible that platform labour could be perceived so differently between the Global North and Global South? Does this imply two different logics of platformization or, beyond the patina, may we identify a common rationale?

The aim of this chapter is to formulate some theoretical proposals that can contribute to the definition of a global approach to platform labour. Put it differently, as platforms act globally, we need a global approach capable of identifying a general logic to explain—and not to hide—regional specificities.

Obviously, I will not take for granted the fact that there is one common logic. As well as I do not want to underestimate context peculiarities. For this reason, I will start reviewing the way platform labour is framed in Europe, from its burst to the debate on its regulation. I will argue that this debate is based on the theoretical premise that there is a standard labour as general paradigm of labour regulation under capitalism. The consequence of such perspective is that other forms of labour are considered just exceptions or deviations from the norm.

Then, I will partially criticize such an idea especially if we refer to non-Western countries. First, I do not deny this historical trajectory could be right for Europe, but it is not the only one possible. Where Keynesian paradigm of Welfare State did not—partially or at all—took root, there platform labour took advantage of informality more than deregulation. Secondly, the boundaries of informal and formal labour are more porous and constantly negotiated.

Consequently, I will try to propose some inputs to fill the gap between North/South analysis towards a global approach. Specifically, I will suggest focusing on the hustle dimension of platform labour as a common prerequisite both to informality and precarization. Put it differently, platform capitalism' global dimension is the product of some general operations capable to adapt to different legal and social backgrounds and reshape them towards an interconnected labour regime.

In conclusion, I will propose to assume the notion of dependence as promising concept to catch the common dimension of platform labour at global level. Dependence entails a vertical relationship between workforce and firm but consider the possibility of self-organization inside a set of norms.

## 2 The Evolution of Platform Capitalism in the West

It is generally assumed that platforms as business model<sup>2</sup> emerged in US from and after the financial crisis of 2007/8. Clearly, they did not come from nowhere but represent both a further step in the commodification of the web and a consolidation of digital firms after the dot-com bubble. Anyway, I do not aim to trace a genealogy of platform capitalism here.<sup>3</sup> Rather, I want to focus on the evolution of platform capitalism in the West since it burst until nowadays. To sum up, we may label this process as a shift from the platform revolution (Parker et al., 2016) to the platform age. The rise and stabilization of platforms as business model impacted starting from some specific sectors (communication, local services) and then imprinting its features on labour in general. Put it differently, the success of some corporations—from Amazon to Uber, from Meta to Airbnb—favoured the spread of a platformization of labour, meaning that «because of the increase in digitalization and connectedness at work, the use of platforms and algorithms as mechanisms of coordination has spread to more traditional work settings» (Fernández-Macías et al., 2023: 3).

This achievement has not been reached smoothly. New and renewed professions questioned the way labour has been organized and regulated by platforms (Woodcock, 2021). In this sense, probably food delivery riders represent the subject who more

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<sup>2</sup> According to Boyer (2021: 4), there is a diversity of platform business models. Nevertheless, I will refer to them more homogeneously considering some common but variable features (to be infrastructures for the match between two or more groups, to be based on network effect, to use algorithmic management or digital control, to foster workers' self-activation).

<sup>3</sup> Michael Cusumano et al. (2019:16) resume platform genealogy in this way: «Most people know the names of companies that shaped the evolution of platform strategies and business models. Intel (established 1968), Microsoft (1975), and Apple (1976), along with IBM (1911), made the personal computer a mass-market phenomenon during the 1980s and early 1990s. A second wave of firms from the mid-1990s built Internet software and services on top of the personal computer, led by Amazon (1994), Netscape (1994), eBay (1995), Yahoo (1995), and Google (1998), as well as Rakuten (1997) in Japan and Tencent (1998) and Alibaba (1999) in China. In the next decade came social media, pioneered by Friendster (2002) and MySpace (2003), and then Facebook (2004) and Twitter (2006). More recently, billion-dollar start-ups, such as Airbnb (2008), Uber (2009), and China's Didi Chuxing (2012), have brought great attention to the “sharing,” or “gig,” economy. They match smartphone and PC users with providers of rooms to rent or cars to ride as well as an almost unlimited number of other products and services. We now refer to all these firms as platform companies, even though they are not all the same».

According to Brad Stone, first pioneers of so-called lean platforms—the ones furnishing sectoral services at urban level—like Uber and Airbnb profited from the internet infrastructure built by Big Tech like Amazon or Google: «the juggernauts Uber and Airbnb did not generate this technological wave, but more than any other companies [...], they rode it and profited from it. The two companies, both in San Francisco, their headquarters only a mile apart, are among the fastest-growing startups in history by sales, overall market value, and number of employees. Together they have scrawled in the annals of entrepreneurship the most memorable stories of a third phase of internet history—the post-Google, post-Facebook era of innovation that allowed the digital realm to expand into the physical one» (Stone, 2017: 4).

These are clearly Western-centric genealogies of platform capitalism, I am mentioning them as European platform ecosystem is mainly based on US firms. Nevertheless, other genealogies are possible, for example, focusing on China (Zhang & Chen, 2022) or Japan (Steinberg, 2019).



openly confronted platforms, not just in the West but at global level (Trappmann et al., 2020). At the same time, the growing economic—and political—power acquired by these companies stimulated policymakers to intervene both to ensure customer their privacy, workers more protections, and states fiscal revenues.

For the regulation theory, when there is a socio-economic innovation, this moves through three main steps: the burst with its pressure on market and state to modify existing working conditions and policies, the conflicting reaction of society proposing alternative solutions, finally the regulation by the State of the new socio-economic regime (Boyer, 2021: 20). Adapting such scheme to the evolution of platform capitalism in the West, we may try to identify the features of these three steps. In this case, we may say that it essentially moved from a platform-based market where firms took up a grey zone in the labour and market regulation, to a platform-regulated market where firms responded to conflicts and debates mainly through self-regulation. Now there could be an evolution in progress—if we think about legislative initiatives at a national and supra-national level like the so-called Riders Law in Spain or the European Directive on platform labour—to a state-regulated market that—hopefully—would guarantee fairer working conditions.

In the first step—the platform-based market—the grey zone was not a vacuum, more a crack in the law. Indeed, such companies often presented themselves not as enterprises but as marketplaces. According to David Evans and Richard Schmalensee (2016: 3), «what these businesses have in common is that they all connect members of one group, like people looking for a ride, with another group, like drivers looking for passengers. [...] They operate under a different set of economic rules. Traditional manufacturing businesses, for instance, buy raw materials, make stuff, and sell that stuff to customers. But matchmakers' raw materials are the different groups of customers that they help bring together, not anything that they buy at all. And part of the stuff they sell to members of each group is access to members of the other groups. All of them operate physical or virtual places where members of these different groups get together». In this case, terms and conditions of use replaced formal contracts. Anyway, this is not simply a stratagem to avoid the acknowledgment of labour rights to workers. It entailed the principles of a different organization of the labour process. To put it simply, platforms consider labour-force as a commodity to be sold on the market that is implemented through their infrastructure presented simply as a technical tool. Petar Marčeta (2021: 69) identifies two streams of labour-force neo-commodification in platform capitalism «as the data technology-driven commodification of labour, which encompasses both the recommodification of labour through the undermining of the standard employment relationship (SER) and the expansive commodification of previously uncommodified labour».

In the second step—the platform-regulated market—companies confront with protests and dissatisfaction by workers who, among other things, challenge the premise they are simply users of a service. In this phase, platforms cannot ignore complaints and problems but try to avoid the definition of industrial relations or the institutional legislation granting some improvements with the aim to both mitigate the conflict and pre-empt regulation. This processes has been described in terms of

auto-constitutionalisation, entailing «the articulation of fundamental rationality principles (*idées directrices*), as well as the development of a binary meta-code (*distinction directrice*, akin to “constitutional/unconstitutional”) for testing the validity or legitimacy of decisions made and actions taken by the service provider» (Sheffi, 2020: 501).

In the third step—the state-regulated market—institutions are stimulated to restore a certain balance between capital and labour through a regulation that would guarantee more rights—not mere concessions—to be exercised autonomously by workers. This regulation seems currently developing in Europe on different geographical scales.<sup>4</sup> First, we had urban attempts to balance platform power with workers’ claims. Think about Bologna’s *Charter of fundamental rights of digital labour in the urban context* or Barcelona’s *Declaration of Sharing Cities*. Cities, indeed, are the main space of platform labour territorialization (Cuppini et al., 2022) and so local administrations have been highly stimulated to intervene according to their (limited) prerogatives. Anyway, the poor strength and application of such agreements made them inspiring example for further initiatives but practically quite ineffective. So, some EU governments carried on sectoral initiatives (Aloisi, 2022: 7–10) to favour collective contracts (Italy) or directly passed laws (Spain). Finally, we may register the ongoing European debate about a directive on platform labour (Donini, 2022; Tullini, 2022), a measure based on a general presumption of employee condition that potentially could be valid for all platform workers.

### 3 The Independent/Employee Dilemma

What is worth relevant here is not so much if these legal processes will effectively approved and improve the working conditions on platforms, but the fact that all the regulatory initiatives about platform labour—at urban, national or supra-national level—share the same main critical dilemma: may we register platform workers as independent contractors, or do we have to consider them as employee? Indeed, «the vast majority of labour lawyers have concentrated their research on the issue of platform workers’ classification into either of the existing categories of employees or self-employed workers» (De Stefano & Aloisi, 2018: 41). So, the debate is mainly focused on the workers’ classification more than on the contents of such regulation, preferring theoretical issues about the “nature” of the working relationship to the identification of the protections that practically would benefit workers: labour unions report platform labour as bogus self-employment and push for its qualification as waged labour; business companies often still claim to be matchmakers and state they have no employees but associates; political parties swing between one pole or another, sometimes proposing a third way.

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<sup>4</sup> This modelling, of course, could be further complicated considering other variables beyond the spatial dimension of regulation, for example the extension of its application (from single sector to all platform labour).

In all these cases, the debate is highly conditioned by the fact that generally in Europe the gateway to ensure social protections is the classification of workers as employees: «The traditional social protection model—premised upon the archetypal full-time, open-ended relationship or contract between a worker and a single employer over a long time span—is under-inclusive and fails to be adaptable when it comes to providing income over the life cycle and mitigating the risks of poverty and social exclusion among the self-employed and their families» (Aloisi, 2022: 17). Unfortunately, in many cases platform labour is labelled under variegated non-standard forms of work. As platforms often deny workers entering into «the realm of employment», they are therefore «excluded from fundamental principles and rights at work such as freedom of association and collective bargaining or protection against discrimination or unlawful dismissal. Moreover, many self-employed workers have no pension rights and they have no insurance rights» (De Stefano & Aloisi, 2018: 44). This means that the discussion has been extremely polarized on the alternative between empowering existing legislation to include new forms of labour or innovating law with innovative solutions. In any case, it has to be acknowledged that a universal and unquestionable assessment of the worker classification is quite difficult.

My interest, here, is not to solve the dilemma—is it possible?—rather to focus on the main premise of such debate and to investigate it more deeply. Indeed, this assumption that the employee condition is the sole gateway to full social protections relies on its historical identification as the standard of labour regime in the West. According to the International Labour Organisation (2016), standard labour emerged in a specific part of the world—Europe—in a specific historical period—the nineteenth century—as part of a larger process that included not just the formalization of the labour relationship through a contract subordinating the free living labour to the command of the capitalist boss and so distinguishing between the workforce and the enterprise, but a more general organization of the State and the market around the fact that such labour contractualization could guarantee workforce reproduction on family base.<sup>5</sup>

What I want to underline here is that this identification of the employment relationship as the standard of labour regime is not a universal truth but the product of a particular capital/labour negotiation that took place under specific circumstances—and class struggle has been a fundamental part of these circumstances—and gave result to specific solutions—like the Keynesian welfare state model. It is meaningful

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<sup>5</sup> «The idea of [...] a “standard employment relationship” comes from the legal regulation or “contractualization” of the employment relationship, which began to emerge in the United Kingdom and other European countries in the latter half of the nineteenth century, shaping the legal distinction between employment and self-employment. [...] The regulation of employment came to be viewed as “standard” as it was part of greater transformations in the world economies and in business. With these transformations came the understanding that the work would be sufficient to satisfy a person’s “fundamental needs” and would therefore provide a stable and adequate income sufficient to take care of a growing family, provide security against unforeseen events that could impede the ability to work, and offer security in retirement. As a result, the design of the social insurance systems that accompanied the employment relationship came to be based on the assumption of a full-time, indefinite and subordinate relationship» (ILO, 2016: 10–11).

that the same ILO (2016: 11) admits that «in the last few decades, however, significant organizational changes have occurred and business practices arisen that have put pressure on the notion that the employment relationship is exclusively bilateral, as well as reducing the grip of legal tests based on strict hierarchical control».

## 4 De-Westernizing Labour Paradigms

Until now I focused on the Western evolution of platform capitalism and the way the public debate conceives platform labour in Europe. My aim was to show how it is more and more difficult to apply to platform-based jobs the notion of standard labour that shaped the access to social protections and labour rights during large part of twentieth century. Rather, this notion seems to be strictly connected with a specific labour regime—Fordism—and a specific negotiation between capital and labour—resulting in the Welfare State—that nowadays have been partially dismantled in the West.

Analyzing social movements against the wave of neoliberal precarization at the beginning of the new century, Bret Neilson and Ned Rossiter (2008: 54) reminded that «precarity appears as an irregular phenomenon only when set against a Fordist or Keynesian norm. [...] If we look at capitalism in a wider historical and geographical scope, it is precarity that is the norm and not Fordist economic organization. [...] we must revisit the whole Fordist episode, its modes of labour organization, welfare support, technological innovation and political contestation. Far from the talk of neoliberalism as exception, a deep political consideration of the concept of precarity requires us to see Fordism as exception». In this sense, nowadays platform labour is often conceived as an exception, a further step into neoliberal policies of labour flexibilization and welfare disarticulation, attempting to a previous model placed out-of-history as the standard. The point—in my opinion—is to revise such assumption focusing more on the way capital is re-organizing nowadays accumulation processes to understand how labour is framed and which frictions this new paradigm generates than on the definition of a reference point for the classification of platform labour.

What is relevant to underline here is how in Europe too there is no more something like a standard of labour: on one side, the self-employment condition expanded more beyond the form of micro-business of bogus self-employment; on the other side, the employee condition is no more capable to guarantee the protections historically ascribed to standard labour. Sergio Bologna (2018) undoubtedly has been among the first to look at autonomous labour as a new form of workforce organization in the post-Fordist era (Amin, 1994). He identifies a new generation of self-employed workforce surging from the crisis and dismantling of Fordist paradigm. These renewed condition of self-employment showed different characteristics than the self-employed conceived just in terms of micro-business, combining forms of hetero-direction with self-organization. In this sense, platforms clearly embedded

alternatives economies (think of the peer-to-peer movement) or cooperative organizations (the commons)—where the workforce had searched for more independence from capital’ command—into profit-based gig and sharing economy—where workers’ partial self-management is part of the firm logic (Ferschli, 2017).

The employee condition, on the other side, has been more and more eroded of its prerogatives that previously characterized it as the standard, from a salary adequate for family-based social reproduction to unconditional social protections. It has been absorbed into the cost-saving logic of outsourcing that affirmed from the 80 s. The example of Uber drivers in Lisbon could be illustrative (Pirina, 2022). Indeed, even if generally the employee condition is considered the most protected, the government of Portugal introduced in 2018 the requirement to enrol drivers for digital platforms through a kind of third-party company. This regulation, nevertheless, did not protect drivers from the same problems as other platform workers.

These critiques to a supposed standard of labour seem to be more relevant and crucial if we look outside the Western part of the world. In this case, employee condition has never been a standard labour while so-called informality is still the largest labour condition in many countries. If we refer again to ILO classification of labour (2016: 15), it emerges that «rather than making a distinction between standard and non-standard employment, most discussion of labour markets in developing countries has focused on whether employment is formal or informal. [...] formality and informality are umbrella terms for a diverse set of employment arrangements». In the ILO’s *Transition from the Informal to the Formal Economy Recommendation* (2015) informality is described as referring to all workers that are—in law or in practice—not covered or insufficiently covered by formal arrangements. This condition is ascribed by ILO particularly to so-called developing countries, where the workforce is often framed as self-employed, casual workers, homeworkers, or domestic workers. This does not mean that formal and “standard” wage employment does not exist in these countries, but it is limited to the public sector or big international companies (ILO, 2016). In this case, the dualism formality/informality is conceived in terms of contractualization, even if I think it is important to underline how the absence of the latter does not mean that there are no norms framing labour. Anyway, platforms are often praised by international organizations and policymakers as a tool for labour formalization in non-Western countries, meaning the possibility for the State to demand for taxes and for workers to appeal to courts for rights.

The point is that these two narratives—the one about the progressive precarization of labour in Europe and the one on the possibility of formalization of labour in non-Western countries—do not overlap, rather they dig a gap between the West and the Rest<sup>6</sup> and we miss to understand how platforms are shaping a global market operating all over the world at the same time. On one side, platform labour is conceived as a dismissal or a misclassification of the paradigm of standard labour. On the

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<sup>6</sup> I am referring here to the famous critique of Stuart Hall (1992) to the West-and-Rest «system of representation», meaning with this a political-historical, not geographical, construct. Clearly, the Rest entails countries and context that vary profoundly but here the aim is to highlight the limits of European approach to platform labour if applied to non-Western countries.

other side, platform labour is presented as a useful contractualization to achieve more labour standardization (Kuek et al., 2015; OECD, 2023, Chap. 5). The point, I suggest, is to move beyond the paradigm of standard labour and to frame specificities of platform capitalism where «social reproductive activities and needs are increasingly incorporated into the “integrated circuit” of capital accumulation» (van Doorn, 2022: 14) and satisfied through the digitized labour of a self-entrepreneurial workforce—more than through welfare, public services or salary. This implies to de-Westernize labour paradigms considering the conditions of standard labour—Fordism and Welfare State—as particular historical and geographical episodes of negotiations between capital and labour we cannot universalize (Mezzadra, 2021).

## 5 Entrepreneurialism Between Precarization and Informality

So how to fill the gap between platform labour studies in the West and the Rest? Let's go back to what platform capitalism is, «a variegated and contingent outcome rather than an ahistorical, immutable economic regime» (van Doorn, 2022: 4). Abstracting for a moment from specific contexts, we may say that platforms are based on some flexible and resilient operations (algorithmic management, workforce' outsourcing, datafication, ranking, and rating systems) that can be territorialized in different ways, adapting to different legal and social backgrounds (Cuppini et al., 2022). Put it differently, «platforms come to mediate relations between market, state, and civil society actors, perpetuating or indeed intensifying some dynamics while recalibrating others» (van Doorn, 2022: 14).

Again, a good example is furnished by food delivery riders who are, at the same time, active in almost all World countries and, in many cases, struggle with platforms for same claims (safer working conditions, higher fares, fair working time). Nevertheless, the way their working conditions and labour process are framed may vary according to local peculiarities: they may be employee or self-employed, paid by piecework or by hour, have regular shifts or do logged labour. These peculiarities, obviously, influence both their work and protests but not the structural features of platforms' operations that keep stimulating their self-activation under algorithmic management. This may help to understand why food delivery riders, even if active in very different socio-legal contexts, experimented forms of communication and alliance at global level towards common goals. At the same time, this perspective may help to understand the multiplication of labour (Mezzadra, 2021) in the platform capitalism: while standard labour is defined on the Taylorist mass worker, platform workers are extremely differentiated between themselves, not simply according to the location but also to the company. As a food delivery rider may have a varying classification in different countries, at the same time a rider and a driver may differ in their working conditions. There is not a paradigmatic platform worker we may identify in a specific profession or another.

Mark Graham defines such assemblage of general operations and local specificities as a conjunctural geography, «a way of being simultaneously embedded and disembedded from the space-times they mediate. These geographies ultimately allow platforms to concentrate and exert power. They can link themselves to the local to concentrating reward, and retreat to their ephemeral digital dualisms when abdicating responsibility» (Graham, 2020: 454). This dynamic of territorialization/deterritorialization may occur in multiple ways. Nevertheless, here I would like to stress how it generally developed with different strategies in the labour market of the West and of the Rest.

In Europe, as already seen, platforms took advantage of the long wave of neoliberal policies that modified the labour market and eroded labour rights and social protections once granted to supposed standard workers. Aleksandra Piletić (2023) identifies some policies—the wave of privatizations started in the 80 s and the austerity regime imposed after 2008 financial crisis—as well as some processes—the commodification of social reproduction and the casualization of labour—of this historical path.<sup>7</sup>

Outside Europe, platforms profited mainly from the vivid forms of self-organization and activation proper of informal economy. Sometimes the label “informal” is associated with illegality or black market. Other times it is simply reduced to a chaos with norms or habits. This is clearly an underestimating perspective. For example, Verónica Gago studied the relationships between neoliberalism and informal economies in Argentina and highlighted how capitalism embedded forms of popular entrepreneurship. She names this apparently impossible assemblage a baroque economy, «a growing web of informal activities with entrepreneurial dynamics (at a popular and business level, and with both acting at a transnational scale) in a context where rights are made flexible and taken away» (Gago, 2017: 38).

In both cases, the precarization of standard labour or the valorization of informal labour, the anthropological paradigm of self-entrepreneur based on hustle practices is sponsored and consolidated. The figure of the self-entrepreneur who fruitfully employs his/her social and human capital is not a novelty, but platforms found the way to implement such anthropology in the urban spaces where they meet masses of «hypercontingent labour» (Piletić, 2023) available to actively engage with platforms standards and aims. Put it differently, platforms are empowering and spreading a convergence of workforce towards forms of self-entrepreneurialism at global level. At the same time, this logic of general operations and local negotiation contributed to create a planetary market of platform labour (Graham & Ferrari, 2022). This is

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<sup>7</sup> «The success of digital platforms should then be understood, on the one hand, as inherently wedded to broader, neoliberal trends towards flexibilization, precarization and casualization of the wage-labour nexus, compounded by the rapid growth in un(der)employment post-2008 crisis. It must also be situated within the decades-long privatization, marketization and individualization of reproductive tasks characteristic of the neoliberal era, compounded once again by post-crisis austerity cuts, resulting in the inability of households to meet their reproductive needs. Platforms have operated by “plugging in” to both dynamics: Capturing un(der)employed workers in desperate need of work and responding to austerity-ravaged reproductive needs of individuals and families, oftentimes by providing low-cost labour and services» (Piletić, 2023: 5).

valid not only for micro-workers who may access labour from everywhere in the World just connecting on the web, but also for local-based workers who organize their life projects considering the possibility to work for a platform offering same job but in a foreign country. In this sense, platforms—because of their generally low-entering barriers and the search for a hypercontingent labour—became part of a set of mobility infrastructures (Altenried, 2021) that allow workforce flows around the Globe.

## 6 Acquired Dependence

The argument I sustained may led to a different evaluation of the platform labour than the mere comparison—in a detrimental or meliorative direction—with standard labour. What I wanted to highlight is the common logic operating through the different context where platforms territorialize, a logic based on conjunctural geographies and self-entrepreneurial anthropology.

This leads us to the final point of this chapter, how to name the peculiar combination of formalization and informalization, territorialization and de-territorialization operated by platforms. One proposal could be to retake and expand the notion of dependence.

Yann Moulier-Boutang (1998) in his historical analysis of the evolution from slavery to waged labour presented dependent labour as a macro-category to address labour under someone else' direction, then distinguishing between free and unfree (dependent labour). This dependent labour may be articulated into different forms. Differently from being totally regulated, platforms stimulate workers to actively adapt to standards, practices, and expectations. Put it differently, they mix direct and direct control (Mengay, 2020). It is not simply an external discipline, it is mostly an inner self-control to fit the expectations of platforms. «To classify the nature of the activity, judges must assess the role of apps that design constrained conditions of possibilities, rather than focusing on the formal obligation to provide work and perform an assignment» underlines Antonio Aloisi (2022: 11).

As a consequence, it is relevant to review the way we think about formalization and informalization: we cannot identify them as a mere dualism or reduce to the (absence of) contractualization; rather we have to blur their boundaries. In Europe too, before being recently platformized, some local-based services have been organized mainly informally, like in the case of food delivery that were furnished as an in-bound service by restaurants through casual workers. On the contrary, also in the so-called Global South some platforms informalized professions that previously were more legally structured, as in the case of local private transportation. Formalization and informalization seem to co-exist in platform labour, not simply in legal but also in managerial terms. While there are variable legal frameworks—from national contracts to users' terms and conditions—applied, many social protections—form safety insurance to retirement contributions—are totally informalized and charged on workforce. Similarly, some parts of the labour process are more organized than



before—think of the customer’ evaluation, for example—while other are less standardized—a good example is the lack of a fixed working time on many platforms. So, the point is the assemblage that platforms produce of formalization and informalization, the way this combination has varied in front of previous labour regimes and the effects produced on working conditions and social reproduction. These assemblages allow platforms to both furnish standards—mainly through formalization—and to stimulate workforce active engagement—more because of informalization.

Moreover, what is relevant here is to understand the source of this dependence. According to ILO (2016: 98), «dependent self-employment refers to services that are performed for a business under a contract that is different from an employment contract. Such workers depend on one or a small number of clients for their income or receive detailed instructions regarding how the work is to be done». In a sense, platforms seem to centralize such multi-sided relationships. Since the definition of matchmakers, it is clear that platform workers depend on the digital infrastructure, without the platform as organization centre there is no access or limited access to the market: you are not forced to use it but cannot do enough without. This infrastructure establishes the effective articulation of algorithmic management and self-entrepreneurialism, eroding margins for workforce autonomy.

In this sense, Michael David Maffie (2021) talks about an acquired dependence workers have from platforms, a condition—I would add—imposed through specific contextual policies—neoliberalism as well as developmentism—that disrupt other labour regimes and produce a commodification of the workforce exerted through a variable mix of algorithmic management and self-entrepreneurialism. Even if once established it is hard to be broken, such hierarchy is not irreversible, as actions of exit—to break platform intermediation—and voice—to demand for changes—demonstrated. The fact that such dependence is not innate but produced and constantly reproduced allow living labour to elaborate alternative strategies than the mere compliance with platforms’ norms. The actions of voice (Heiland, 2020) challenge the self-entrepreneurial anthropology of platform labour, addressing platforms as responsible for workers’ conditions and proposing a different articulation of formalization and informalization, e.g., defining better social protections. The actions of exit (Maffie, 2021) challenge the centralization of control on labour, attempting to gain workers more margins of autonomy in the labour process organization. What would be interesting to be analyzed in further researches is the relationship between these strategies of resistance and the general logic underpinning platform labour to understand which are the limits and the advantages characterizing the different practices of protest in the platform capitalism.

In conclusion, the definition of a global approach to platform labour would favour not simply the empirical investigation of specific case-studies, but would also support workers’ transnational processes of solidarity and collaboration in the struggle for improving their condition.

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# What Urban Future: Do High-Tech Metropolises Dream of Electric Sheep?



Niccolò Cuppini

What urban trends are on the horizon and what are the possible futures of our cities? These questions were often raised during the peaks of the Covid-19 pandemic, generating a series of institutional aftershocks that seem to have left few lasting traces. Some have proposed, like the Colombian Carlos Moreno (2019) to the Mayor of Paris Anne Hidalgo, re-organising around the idea of 15-min cities—the possibility for every inhabitant to have access in 15 min to every possible urban service, from hospitals to schools, from gardens to sport activities, from marketplaces to leisure spaces, etc. Many architects have spoken of a “return to the rural”, fearing a mass exodus from congested urban centres. In the United States, the slogan of the “one-hour city”, a concept of infrastructure redevelopment aimed at making any place accessible within an hour, has had some success. Many Asian metropolises have seen a significant acceleration in urban digitalisation processes. Numerous other popular ideas also emerged between 2020 and 2021, which we will not go into here, particularly as most of them seem to have remained stuck at the level of announcements and desires rather than becoming concrete projects and policies. There are many reasons for this, but one stands out: increasingly fewer institutions (including municipalities, regions, states, and others) have the power, tools, and knowledge to really intervene in the urban future (Lubell et al., 2009).

In order to answer the question “What is the future of our cities?” we must search for answers outside of institutional perimeters. In this chapter I explore the intersection of platform capitalism and urbanism, and analyse the impact of digital platforms and big tech companies on the design, governance, and use of urban space. I will work on the juxtaposition between two main streams of literature, that on smart cities (Glasmeier & Christopherson, 2015; Hajer & Dassen, 2014) and that on platform urbanism (Barns, 2020; Blair-Goldensohn, 2019). The chapter considers the nexus between cities and platforms (Bollier, 2016; Cuppini et al., 2022) as a sort of new layer of the

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digitalisation of the urban prompted by smart urbanism, focuses on the processes of the platformisation of urban life (Strüver & Bauriedl, 2022), and explores the idea of platform urbanism as a “beyond” of the smart city (Caprotti et al., 2022). I first present some lines of research for investigating visions and projects of urban future. I then analyse the “human side” of current urban transformations, reflecting on the concepts of autonomy and agency. And finally I sketch out a genealogy and definition of the concept of the “cloud metropolis” as a possible analytical tool for interpreting urban futures, before closing with some further insights into this emerging research agenda.

## 1 Urban Plans and Actors

We begin by looking outside of our planet, to the Moon Village, a permanent settlement of habitable modules located near the south pole of the Moon, on the edge of the Shackleton crater. The structure has a kind of outer shell, built on regolith, prepared to withstand extreme temperatures, debris, dust, and radiation. The modules, equipped with all the necessary instrumentation, are too heavy for current launch systems, but Elon Musk claims that his SpaceX technology will soon be able to transport them. The village is designed under the banner of self-sufficiency and resilience, and is capable of harvesting energy from sunlight and nearby ice deposits to extract breathable air and rocket propellant for transportation and industrial activity (Haney et al., 2019). The creators of Moon Village—the SOM studio, the European Space Agency, and the Massachusetts Institute of Technology—say that if you’ve never thought about living on the Moon, now is the time to start doing so. However, the aim of the project is not limited to prototyping future cities on the satellite, but also looks to how the lunar terraforming hypothesis can aid in developing new technologies to inhabit Earth, especially in an age of pandemics, new wars, and climate crisis.

Aerospace research has always had a direct impact on everyday life, and the founding of new settlements in hostile territories is nothing new (think of the desert metropolis of Dubai and its Palm Jumeirah, the artificial urban island built in the ocean). Therefore, projects such as the Moon Village should be investigated not only from the point of view of developments in techno-engineering, but also, or perhaps above all, by analysing their imagery and social and political implications. Moreover, the idea of escaping from established cities by building new ones or by superimposing new urban layers on old ones is certainly not original, but has in fact been repeated throughout history. So let us put our feet back on the ground and reflect on a second example closer to home.

Let’s try to investigate the urban future by looking at how today’s high-tech urbanity—between skyscrapers, algorithms, floating cities, digital platforms, spatial settlements, smart cities, and the spread of the spatiality of global city cross the planet—is continuous or discontinuous with the past. Some of the elements making the urban imaginary of the new millennium distinctive come from an automated and

powerfully digitalised conception of the urban (Luger, 2018). This new urban production is coupled with the use of an ultra-positive idea of techno-scientific development, with a strong retro-futuristic flavour, where instead of responding to the problems of the present with cyber-punk dystopian scenarios, ideal alternatives are developed based on how the future was imagined in the past.

We could go back to the 1939 World's Fair in New York, and more specifically to Futurama, an exhibition sponsored by General Motors, which proposed a vision of an idealised urban future composed of mega-cities, small agricultural plots, highways with semi-automated cars, and circular airports (Fotsch, 2001). Contemporary urban planners seem to be inspired by these models of the future from the past. Perhaps this is due to a simple lack of imagination, or perhaps it is because the technical conditions exist today for realising projects that sounded utopian in the past. Or perhaps there is more to it than that. Let's be a little more specific and look at the actors who are concretely trying to design the urban future. Among them are undoubtedly the digital platforms, which have established themselves all over the world, especially after the economic crisis born out of the US financial crash of 2007–2008. With the Covid-19 pandemic, platforms have become even more powerful, and in many urban contexts, urban mobility, inhabiting, consuming, household shopping, and even simple decisions about how to get around, where to eat, where to have fun, and where to go, are increasingly made through digital platforms. Platforms like Uber and Airbnb have been widely analysed as powerful urban agents determining strong and widespread processes of general transformation (so-called uberisation and airbnbification: Davis & Sinha, 2021; Törnberg, 2022). Less attention has been paid to the impact of big logistics and internet companies on the urban. One of these players is undoubtedly Jeff Bezos's Amazon, which operates both in the new space frontier through Blue Origin and in "last mile metropolitan logistics"—the final leg of the supply chain. Amazon has an undisputed tendential monopoly in e-commerce, particularly in Europe and the United States, and a global impact in terms of turnover, owner wealth, and number of employees.

Amazon Technologies Inc. is its corporate arm, responsible for the huge number of patents it has got (6000 in the last decade). Many of them are urban devices, patents for transforming the urban arrangements and home living with a disruptive impact on urban imaginaries—it is not a case that they have a permanent presence in design magazines. And like all patents they aim to mortgage the future. We seem to have ended up in a world like Archigram, the London architectural avant-garde of the early 1960s, which promoted a hyper-technological urban futurism through projects such as Plug-in City, Walking City, Tuned City, and Instant City (Sadler, 2011). The imaginary of Amazon's patents is one of walking cities, airships, and inflatable megastructures, an Amazon world with multi-level sorting centres for drone deliveries, mobile robotic warehouses, augmented reality furniture, inflatable data centres, underwater and flying warehouse structures, infinitely expandable data centres, *on-demand* clothing manufacturing, and automated shops with facial recognition systems. These patents convey the idea of an automated urban future, hinting at the imaginary that Amazon intends to create: a world of its own, a totality, moving from the invisible peripheries of our cities—the abstract spaces of logistics

and anonymous warehouses—to proposals that reach into the heart of everyday urban space (Stewart, 2022). The underlying idea is of a logistical governance of territory and individuals that closely resembles an *à la carte* version of the *smart city*.

This thus provides another terrestrial example of possible urban futures. Since it began promoting the Smart Cities Challenge in 2010 (Alizadeh, 2017), IBM has sent hundreds of its employees to nearly 150 cities around the world in a wide-reaching programme aimed at connecting the different urban infrastructures—physical, IT, social, and economic—with the goal of making the most of the city’s “collective intelligence”. The aim of IBM and, in general, of the wave of *smart cities* that has swept across the world in the last decade, is to globalise a conception of space made up of functional zones and projects. The goal is to create new forms for the territorial production of discrete physical spaces that are physically and algorithmically interconnected and standardised, and have specific legal protocols. These are the smart spaces that inspire projects such as Moon Village, based on a logic of abstraction and geographical distancing. But smart platforms also function in temporal terms, with uncertainty about the future being managed through continually resorting to the present as if it were a “demo” or “prototype” of the future. Discourses on the political and the social that have historically had a specific ground in cities are seen as residues of the past. They are replaced by a spasmodic focus on infrastructures and a fetish for big data and analytics as the guiding vectors of development. This development, however, does not seem to have well-defined ends. This logic mimics that of software: it is made up of demos, beta versions, tests, updates, and experiments, in which “technicians” work not to “solve problems” but to produce new versions, that can never be “completed”, of new cities and spaces all over the world.

So-called “smart” policy thus promotes digitally and computationally managed systems, imagining that they can self-evolve by continuously optimising themselves, collecting data without the need for “external” political or social intervention. Apart from its catchy technological promise, this kind of policy is nothing new. It is in fact a re-proposition of the main planning concepts of the twentieth century that shaped contemporary planetary urbanisation in different parts of the world and in different socio-political contexts. In other words, the smart city in some ways simply updates the idea at the close of the nineteenth century, through Le Corbusier and up to the present day, that technology can reduce the confusion and chaos of life in a complex place (Cuppini, 2020a, 2020b). The algorithmic solution to urban problems expresses a modern conception of the city as a unitary object that can be managed and administered. The cybernetic techno-solutionism of big companies like Amazon and IBM, of the regulatory-smart city ideal, and of high-tech urban projects in general, is transforming how space is designed and managed, how the labour and workers behind these projects are managed, how cities are governed and who lives in them. The difference with respect to the past is that today we think we can produce a territory that is not simply a support for the economy, as was the case in the old industrial cities, but that is a fundamental part of a financial, technological, and industrially integrated production system building an undifferentiated space to suit its own needs.

Let’s now take a closer look at this aspect of smart urbanity (Luque-Ayala & Marvin, 2019). Yú (渝), short for Chongqing, is one of the largest urban areas on

the planet: as big as Austria, with more inhabitants than Canada (up to 39 million people reside in its peripheries), it rivals Mexico City. The municipality is administered directly by the Chinese central government and organised through districts and counties. Recent decades have seen the dispersed and discontinuous urban fabric become ever more entangled with the rural, with an increasingly dynamic mobility involving hundreds of thousands of people fluctuating within it every day. It is a socio-geographical entity that reflects the difficulties in defining what a city is today.

The city's main conurbation has 8.5 million inhabitants. Although visibility is often reduced by smog, when there are clear skies and the city's great rivers cast reflections on the buildings and the cranes that stretch as far as the eye can see, it is possible to imagine a new project getting off the ground: A.I. Cloud Valley. Although it is one of many projects unveiled at the end of 2020, it deserves special attention. Conceived by the Chinese start-up Terminus, it is a district operating as an advanced smart city with a municipal government run by artificial intelligence. Populated by both humans and robots, the Cloud Valley will be coordinated through real-time data constantly collected through personal devices, a network of sensors, and machine learning technologies. Algorithms will interpret this data to organise the urban functions and needs of this 4 million square metre automated "city".

The company's website includes a long and extremely glamorous presentation that begins: "The morning sun's rays slowly spread across the silhouette of a city, as light reaches every corner of this Terminus Group AI CITY". It describes smart houses that regulate the temperature and wake up their inhabitants by automatically filtering the sunlight at the desired time, virtual housekeepers that select breakfast and adapt clothes to the weather, and android baristas that use facial recognition to serve each customer's favourite drink. The CEO describes it as a "big version of the iPhone". The Internet of Things is an ecosystem in which software platforms are integrated with the daily activities of a city, from the home to the hospital, from workplaces to supermarkets. It collects information and transfers it to artificial intelligence systems, which process and anticipate the needs of the inhabitants. Is this a utopia or a dystopia? Although the project has received a lot of criticism, mainly in relation to privacy and the rights of citizens, the promise is to make the project a reality within a few years.

This vision of an urban future should not be considered an Asian oddity. Although extreme in its own way, Cloud Valley in fact synthesises a number of technological trends that, albeit at different rates and intensities, are being felt in cities around the world. Everywhere, processes of digitisation have greatly accelerated with the pandemic and will increase with 5G, Web 3.0, and the Internet of Things (by 2025 the world is expected to have some 75 billion connected devices). But above all, these trends are the urban mirror of so-called platform capitalism, the economic-political model we inhabit today, driven by the world's largest companies, the big tech platforms such as Apple, Microsoft, Google, Amazon, and Meta.



## 2 Autonomy and Agency in Automated Metropolises

Within this maelstrom of transformations, whether we bow down in awe to the power of technology or are frightened by the dehumanised side of these processes, one thing is clear: the direction these technologies take will decide the fate of our cities and our lives. It opens up an entirely political question that is not limited to the recurring theme of privacy. Chongqing's economic-institutional set-up is clearly different from many other cities around the world. This does not detract from the fact that the "essentiality" of digital infrastructures such as e-commerce, social networks, or teleworking apps is being imposed worldwide. These are all platforms that profoundly redefine daily life and are beginning to guide the spaces, times, and rhythms of cities. In fact, high-tech urbanism is changing the entire territoriality, its organisation, and logistics (think of self-driving car projects). If in the Chinese context the synthesis and orientation of these processes is top-down and in the hands of the party-state, in other places the question of "who decides" might be more open, disruptive, and crucial. Many fear that if the management of these mutations is left in the hands of large technological corporations, they will lead to future irregular territories made up of hyper-connected smart neighbourhoods for elites within vast urban settings of "surplus population". It is thus possible that forms of so-called subaltern urbanism (Roy, 2011)—like those found in India or Latin America, which have long been considered a specificity—actually speak of the future of the planet, with its strident contradictions between the urbanisation of the rich and the urbanisation of the poor that meet and clash in often emblematic ways.

However, the question of what an algorithmic governance of cities is remains open, and again, this question is not technical but social and political. It is therefore strategic for a critical investigation on the urban future to bring to light aspects that are often left out of the narrative by corporations and policy makers, also asking new questions about whether urban automation could lead to increasing prosperity rather than exclusion, of liberation of working and living time instead of new forms of exploitation. However, if my above hypotheses and elaborations are correct, it is no surprise that contemporary urban imaginaries about the future are based on the idea that we can automate the city, which continues the idea of automation promoted by the so-called industrial revolution 4.0. A new aesthetic and material regime to produce regularity and organicity in an urban fabric, trying to reverse upside down the main characteristic of the urban, that is historically conflicted and divided. A political question arises again. We must remember that automation is not in itself automatic. The conversion of urban orders into electronic programmes and of their agents into automated actors, moves from "supervised autonomy" over cities to "total autonomy", in which human agents will no longer be "neither in nor out" but will instead be completely out of the loop. The point is not that humanity would lose control of the urban machine in this scenario, but that the "subordinate" operators would lose (more) autonomy vis-à-vis the higher levels of the hierarchy. A comprehensive urban robotisation would further reinforce the general tendency

of contemporary economic-political systems towards the centralisation of decision-making, albeit in a different and more discrete form. This would be a centralisation through programmatic specifications rather than orders, which, in deciding the value of decision parameters, would set the course for an indefinite myriad of future actions.

This vision of an automated urban future is intimately linked to an imaginary that emerges from and reproduces one of the most evident dividing lines in contemporary cities, namely the growing polarisation between rich and poor. Increasingly circumscribed elites plan spatial tourism and create urban enclaves, gated communities separated from the marginalised and neglected masses. Thus the apparent aimlessness of this type of urban development is in fact based on the reproduction of the existing social organisation and its hierarchies. At present it is difficult to map out simple “answers” or alternative solutions to the current trends of augmented and algorithmic cities and the polarising and centralising logic on which they are based. However, one direction we could take, at least at the level of reflection, is to attempt to politicise current developments, dissolving the fog of technological neutrality that often envelops them and allowing us to rethink the question of conflict within them—a question that is a constitutive feature of the city (Magnusson, 2011).

The political imaginary of the high-tech metropolis frames the city as a global system organised by technology, urbanism as a technique that makes it operational in a physical sense, and the inhabitant/citizen as an agent who only has to apply the rules (which should be as user-friendly as possible). Behind this model with strong “utopian” connotations lies a political philosophy that sees citizens as users to be controlled or as clients of a service. The historical relationship between humanity and the built environment is inverted, with human beings increasingly seen as androids and robots in a perverse inversion of the logic of automation. A city in which facial recognition mechanisms guarantee or deny access to urban spaces, as is increasingly experienced, for example, in China, also denies the principle that Hannah Arendt had identified as decisive for the constitution of the first political scenario, that of ancient Greek cities: eyes responding to each other in a mirror image.

Cooperation between individuals in the high-tech metropolis appears in the automated urban as a cooperation between unconscious, vaguely dreamlike, involuntary but lucid in that the individuals are always communicating. A highly effective high-tech metropolis device that builds an anthill of hyper-connected “unconscious” solitary individuals with an automatism that, while presenting itself as horizontal, actually conceals the increasing centralisation of our economic and political models. In 1968, Philip K. Dick wrote of androids who “dream of electric sheep”, imagining androids who, freed from the servitude imposed on them by humans, hope for a better life. In 1516, Thomas Moore, in *Utopia*, metaphorically describes the so-called original hoard, the enclosures of the English commons, writing that “your sheep that were wont to be so meek and tame, and so small eaters, now, as I heard say, be become so great devourers and so wild, that they eat up, and swallow down the very men themselves. They consume, destroy, and devour whole fields, houses, and cities”. Whether or not today’s high-tech metropolises dream of electric sheep leaping over the moon, perhaps we should also ask ourselves what contemporary humanity dreams of and what its unconscious would like to free itself from. To

better investigate these questions, I introduce the concept of “Cloud/Metropolis” as a research frame for interpreting current urban mutations.

### 3 Cloud/Metropolis: Three Cycles

Before expanding the field of problems we are addressing, a premise is necessary. The two terms that make up this frame can be productively inverted. So it is either *cloud + metropolis* or *metropolis + cloud*. In the first instance, the question raised by the formula could be: in what way can the *cloud* today, metaphorically understood as digital spatiality, be considered in itself a metropolis (stratified, planetary, virtual but with a material infrastructure supporting it)? In the second instance, we might instead ask: how does the *cloud* intertwine with and empower the urban, defining a kind of hyper-urbanity (Cuppini, 2021)? At bottom, can the two terms really be separated, or do we find ourselves within a single field of tension? The issue of visibility/invisibility is also at stake. *Cloud* urbanity is mostly invisible but has a powerful materiality, it produces a series of “urban effects”, a sequence of synthetic operations on urban space that recode urbanity. In short, the *cloud* part is that which cannot be seen in the smart city, the management of flows that are invisible to the human eye. Echoing Walter Benjamin’s reflection on photography, the nature revealed by the *cloud metropolis* is different from that seen by the human eye:

instead of a space consciously elaborated by man, there is a space unconsciously elaborated. [...] Only through photography does he discover this optical unconscious. [...] Photography unveils the physiognomic aspects of worlds of images that inhabit the microscopic, perceptible but concealed enough to find a hiding place in daydreams, and now, having become as large and formulated as they are, capable of revealing how the difference between technique and magic is a historical variable. (Benjamin, 2000: 62).

The *Cloud/Metropolis* unconscious conceals and reveals with extremely concrete effects, of which I will give some examples.<sup>1</sup> In order to analyse this *problématique* I use a funnel-shaped reasoning: in the widest part of the funnel I discuss the relationship between the city (or, rather, between the environment built by humans) and technology; in the central part I explore the most “advanced” frontier in this regard, that of previously described platform urbanism—the digitised urban; and in the narrowest, final part, I analyse some aspects of Amazon’s operations,<sup>2</sup> as an example of an iconic actor in the construction of the Planetary Metropolis 4.0.

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<sup>1</sup> Restaurant kitchens are a good example of this on an urban level. Whereas kitchens used to be hidden, now in restaurants they are shown with a mirror effect, here it is the work that is invisibilised. Will we definitively rely on the machine to see for us?

<sup>2</sup> The question of the “operations” is a reference to the concept elaborated in Mezzadra and Neilson (2019).

## 4 First Circle

In order to frame contemporary transformations, it is helpful to place them in the context of the twentieth-century historical reflections on the urban in response to the most significant changes of that period. One such approach is that of Georg Simmel, who in the early twentieth century argued that money was the source and expression of metropolitan rationality and intellectualism. This new metropolitan reality was revealed as something impersonal, with money as a leveller reducing any qualitative value to a quantitative basis. From this perspective, the metropolitan individual lives in a network of numerous superficial contacts that replace the community spheres of family and neighbourhood bodies effects that directly affect bodies. The metropolitan individual is constantly stimulated by the frenetic succession of images affecting their nervous system, leading to a drastic reduction in their reaction to stimuli (the *blasé* individual), and resulting in them taking refuge in interstitial spaces, looking for an “elsewhere” where the rigid conditioning of the social context is absent.

It is yet to be seen how the psychic forces of the *cloud* impact on the body and mind, but Simmel’s reflections provide ample stimuli for understanding today’s world, in which what he foresaw has only intensified. New modes of research, from digital auto-ethnography to cyber-anthropology, can also be used to analyse the defence mechanisms of the contemporary *blasé*, as well as the spiritual life and continuous sensory stimulation of the contemporary metropolis in which the urban and the digital merge. Contemporary urban experience is increasingly mediated by digital platforms, which, in the words of philosopher Luciano Floridi (2014), “mediate by disintermediating”. We must attempt to identify where our agency begins and where that of the platform begins, in search of new interstices and fissures, but also of counter-practices and new emancipatory potentials in the *cloud metropolis*.

A second historical reflection that might be helpful for understanding the present, could begin from these words written by the urban sociologist Louis Wirth in 1938:

“It is obvious that the symptoms that will indicate the likely development of urbanism as a mode of social life must be looked for in relation to emerging trends in the communications system, and the technology of production and distribution [...]. The direction of the changes taking place in urbanism will transform, for better or worse, not only the city, but the world” (Wirth, 1998: 90).

Wirth spoke of the spread of urban life due to the strong despatialising influence of the new technologies of his time, which delocalised urban space. He was particularly interested in the radio, attributing a strong democratising power to it, just as the urban planner Lewis Mumford would do a few years later with respect to the spread of the automobile (Mumford, 1953). Moreover, it is well known that Western urban modernity—the metropolis—was the offspring of industrialisation, meaning that technology was also a crucial urban factor in the past. And it is equally well known that one of the greatest twentieth-century architects, Le Corbusier, conceptualised the urban in a purely technologised sense, starting with his idea of the house as a *machine à habiter*. The advent of the Internet in the 1990s, however, has not sufficiently stimulated urban reflection for grasping the current urban dynamics,

except for elitist fantasies about the end of cities through tele-work (which came back into fashion with the Covid-19 pandemic), Castells' discussion of the space of flows and the space of places, or Saskia Sassen's global city in the financial world. Moreover, the prevailing metaphor of the "virtual" to talk about the Internet has totally de-materialised reflections on the matter, giving the distorted impression that there is no living labour and no resources "behind" the Internet (Casilli, 2019). This problem is likely to persist with the *cloud* metaphor, mostly read as something ethereal like the "real" cloud. Yet "the *cloud* is a resource-intensive extractive technology, converting water and electricity into computing power, leaving behind a considerable amount of environmental damage" (Hu, 2015: 50).

In the last decade, a more materialistic view of urbanisation processes has gained ground, in, for example, the theorisation of planetary urbanisation and its emphasis on urban metabolism and an interconnected geography of mining areas, logistical routes, suburbs, and metropolitan areas (Brenner & Schmid, 2015). The conception of the Internet has also been refined, to the point of framing it as a real (digital) environment—in which digital platforms and network infrastructures represent what we might call the "urbanisation of the Internet". What seems still to be lacking is an ability to understand the intertwining of and juxtaposition between these two *layers*, the Internet and the urban, the *Cloud/Metropolis*.

## 5 Second Circle

In 1964, Marshall McLuhan first introduced the idea of the "global village" in *Understanding Media: The Extensions of Man* (McLuhan, 1994). At the threshold of the electronic age, after the mechanical and the electrical age, he described the effects of technology on humanity with the paradox of a world becoming a small village and a village becoming a world, with the depersonalised global vision of the "electrical" village creating more "discontinuity, and diversity, and division" than the previous mechanical world. Today, however, the idea of the village, together with that of community, has entered the lexicon of capitalist innovation, reintroducing an idea of warm social ties in a world made glacial by capital-oriented digitalisation. Not only social media communities, but also new high-tech neighbourhoods such as the previously discussed Cloud Valley in Chongqing, China (Zorloni, 2021). There, if you go to any bar you will be recognised by the bartender, just like in a village, because the bartender is a robot with sophisticated facial recognition technology (Pieranni, 2021). Furthermore, the idea of the 15-min city, which became popular during the pandemic, also harks back to the idea of a village by reducing the city to a patchwork of small local communities.

The smart city that is globally transforming cities is the urban avatar of so-called *platform urbanism*, with the metaverse currently representing its emerging technological frame (which large multinationals, such as Mark Zuckerberg's Meta, are trying to appropriate). The smart city is a cybernetic concept that proposes itself as the solution to urban problems by means of technology (from camera systems

for security to intelligent street lamps for energy saving, from algorithmic traffic management to infrastructure management). It is an extremely stretched concept to include all manner of meanings that functions as a regulatory ideal rather than a fact (Cuppini, 2023). Behind this model with strong utopian connotations, a political philosophy operates that sees citizens as users to be monitored or as service users and thinks of space as a residue to be smoothed for the free development of flows.

As in the first circle, here it is also a question of working on the juxtaposition between digital and urban spaces, where “*smart city* technologies [...] are already transforming the way public space is designed and administered, how work and workers are managed, how neighbourhoods and communities are controlled” (Shapiro, 2020). There are many critiques of these transformations, although they are for the most part very partial and Wester-centric, limited to the issue of control and privacy, and are often seen as models mainly applied in specific contexts such as an “exotic” Asia. This form of techno-politics and the automation of the urban is not in fact as limited as these critiques imply. Although there are certainly important examples, such as Alibaba’s City Brain Lab, which is experimenting in numerous places (Hangzhou, Suzhou, Shanghai, Macao, Malaysia, etc.) with “new infrastructures for future cities using data and opening ‘pipelines of city data’ [...] to solve problems in transport, security, construction, planning, etc.”,<sup>3</sup> is this system of urban intelligence not also emerging all around the world—even if with clear differences and specificities?

## 6 Third Circle

In the exhibition “Into the Amazon Box” at the Haus der Statistik in Berlin (2020), the idea of a specific Amazon “urban intelligence” was introduced. The curators attempted to trace Amazon’s unconscious, and its attempt to create an environment that reflects its operations, and outlined the desired landscape of this urban intelligence.<sup>4</sup> Picking up on Michel de Certeau’s insights in *The Invention of the Everyday*, we can distinguish between the concepts of strategy and tactics. In the production of the urban, “strategies” are typically elaborated by institutions, while “tactics” are used by individuals to create their own spaces in the environments defined by “strategies”. In the chapter “Walking in the City”, de Certeau describes the city as a concept generated by the strategic interaction of governments, corporations, and other institutional bodies, which produce bird’s eye view maps in their planning of the whole city. Amazon operates in precisely the same way, as a strategic actor. But at the same time, it also places itself at the level of the pedestrian by organising logistically at

<sup>3</sup> See: <https://damo.alibaba.com/labs/city-brain>.

<sup>4</sup> “Urban intelligence” and “urban unconscious” are the two terms of an urban ambivalence. One avenue of research could be to start by asking how an “urban unconscious”, or rather, a cloud understood as a Lacanian Great Other of the metropolis, is articulated or could be articulated (in Stuart Hall’s sense of articulation).

street level: it operates in tactical ways, creating specific trajectories or shortcuts rather than adopting the utilitarian approach of street grids. In this sense, Amazon's way of operating seems to confirm the theses on "logistics as power" proposed by Brett Neilson, who argues that "logistics directs tactics and strategy", that "logistics power is political power", and that "logistics produces subjectivity" (Neilson, 2012). Unlike the various multi-level institutional actors that govern territories, Amazon has an in-depth knowledge of these environments and the citizens that populate them, and a "unified" capacity to order this knowledge. Amazon operates in a global sense on territories by reconstructing their geographies from a transnational point of view and by constantly collecting a huge amount of data from both citizens/consumers and its workers who circulate to deliver goods. These are all elements that radically exceed institutional possibilities—institutions will never be able to measure up to Amazon.

While public administrations' capacity for urban planning (for ideological reasons or due to a lack of tools and resources) has mostly diminished in recent decades, Amazon has an increasing capacity to produce its own urban plan. In fact, it creates an interconnected geography of large and small infrastructures, linking large warehouses (Fulfillment Centres) to small hubs, fluidifying large logistical areas with the dissemination of *lockers* in various points in cities. It guarantees a design that moves seamlessly from global logistics to last mile logistics that has definitively triumphed with the explosion of e-commerce during the Covid-19 pandemic. To guarantee this complex assemblage of infrastructures, heterogeneous forms of labour, machines, and algorithms, Amazon moves in a manner reminiscent of Benjamin Bratton's "The Stack" (2016), acting simultaneously as a stack of different levels. However, unlike the Stack imagined by Bratton, Amazon has a hierarchical process that nevertheless does not dispense with the state. Technology, the Internet, and the virtual as forms of governance of the social, cannot function as political mediation on their own, and Amazon therefore relates to the state as an empirically and politically normative presence (and conversely, the state radically transforms in the presence of these "stacks" of power that are in constant tension with its no longer absolute sovereignty).

Amazon looks to the territory as if it were freely malleable, manipulable, and reprogrammable at its will, surfing the wave of differences in tax exemption proposals between states, pitting local governments against each other to secure greater benefits, engaging in intense lobbying and propaganda, and exploiting its global economic power against local actors. Undoubtedly, Amazon has a huge capacity, like all platforms, to "adapt to the local" and to be resilient. However, we might see this as being only of a "tactical" character, whereas its strategy seems instead to be to reprogramme the whole territory to make it its *hub* (Cuppini, 2021). The spatiality that Amazon and platforms more generally aim to construct can be traced back to the concept of "*affordance*", a constant "invitation to use", in which the physical quality of a space suggests to the human being appropriate actions for manipulating it. Amazon's space is thus not flat, but has myriad levels. Platform urbanism produces a shift from architecture as a commodity to architecture as a service characterised by access, a manufactured space with many invitations to use. The idea of access is usually framed as positive, but the invitation to use is also an invitation for others

to have access to us, to our lives. On slippery ridges like this we must watch our footing.

On the one hand, Amazon centralises the market while extending it “everywhere” thanks to the possibility of online shopping and its cloud capacity to capture profit where it already is, without having to “build” it. On the other hand, however, it follows a different model than the distribution concentration produced by hypermarkets. Amazon tends to redefine rather than create from scratch, at least at the moment. Whereas hypermarkets have profoundly modified cities since the 1980s (with a model that is now declining as a result of Amazon), the transformation produced by Amazon creates different trends. The logistical hyper-acceleration of territories, seen by Amazon as essentially large hubs and networks to be ordered, is operated not only from a technical point of view, in order to optimise circulation, but also from the social point of view of its stratification. In fact, the search for pools of cheap labour and territories where consumption can be maximised is at the top of the selection criteria. This is a socio-territorial reading that, in an inverse of urban modernism that governed the time of subjects as a function of space, governs spaces as a function of time. In this sense, Amazon should not be seen as the new Haussmann, Moses, or Le Corbousier, but as an contemporary specific project of territorial construction. Although it is certainly not only Amazon that is promoting this project. In an intriguingly titled book, *A New City O/S: The Power of Open, Collaborative, and Distributed Governance* (2017), Stephen Goldsmith (former mayor of Indianapolis) and Neil Kleiman (director of NYU Wager Innovation Labs) propose a neoliberal reading of (local) governments as a block on development, arguing that the solution could be a technocratic turn through applying a new O/S (Operating System) to cities. In an article they wrote the following year to promote it, “Cities Should Act More Like Amazon to Better Serve Their Citizens” (Goldsmith & Kleiman, 2018,<sup>5</sup> they argue that Amazon’s simple and seamless shopping experience should be taken as a model because “public sector environments [...] share common elements with retail environments: providing a crucial product or service to a person who needs it”. The idea of a logistical government of territory and individuals is thus developed across different actors and political cultures, in typical Californian Ideology style (Barbrook & Cameron, 1995).

## 7 What Comes Out of the Funnel?

The first of this chapters’ three “circles” explored the historical-theoretical, or, we could say, hermeneutic, theme of the constitution of the urban, considering the latter as an environment constructed by the human and therefore as technology in itself. We then considered the most recent form of this issue, discussing high-tech urbanism, smart cities, and urban automation, and arrived at the bottom of the funnel by discussing the specific case of how Amazon operates in relation to these.

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<sup>5</sup> The reading of this article has also resulted in the book Graham et al. (eds.) (2019).



In conclusion, however, we must point out that this discussion has essentially traced out one side, the most visible sphere, if you like, of the funnel. The urban, as well as technology, create an image of themselves as neutral, or rather neutralised—the cold product of design. Yet they are always the historical condensation of power relations, struggles, conflicts, and antagonism. The Cloud/Metropolis is thus indeed a techno-political “form” that, like a funnel, channels flows, but it is also contingent and unstable, continually traversed by *débordement*, frictions, and ruptures. In other words, and sticking with our metaphor, what enters, passes through and leaves the funnel is not pre-determined: it can continue to take autonomous and unforeseen directions. To further this field of research, which has yet to be opened up, it will be necessary to explore the dimension of conflict in current urban transformations, and their continuous being as battlefields (Into the Black Box, 2021). In other words, we must also probe the emerging Cloud/Metropolis from the point of view of the struggles that constitute it, as well as through identifying its possible weak points. Kim Moody argues:

the emerging *just-in-time supply chain* system, increasingly digitally driven, is concentrated in ‘nodes’ located at the edges of large metropolitan areas – as they depend on the large concentrations of underpaid labour located there. These logistics clusters and their connections are the carrier vectors of the most important companies and industries, and represent the weak points for the great power of disruption that is being determined in them. (Moody, 2017: 191).

In addition to Moody’s considerations of the potential disruptive power of the labour force concentrated in warehouses, there is also a broader “counterlogistical reason” in the urban trends we analysed that could branch out in a more comprehensive sense. In other words, a code of possible overthrow is also inscribed into the emergence of the *Planetary Metropolis 4.0*, which is being established through: global value chains; the logistical routes of planetary urbanisation; the construction of digital cities as platforms from Amazon’s (or similar actors) multiple operations—from its investment in the cloud to its delivery services. There is a potential concatenation between: a different *affordance* of subjects who are not reducible to mere users, but who in a more relational sense have the possibility of sabotage; a counter-logistical power, as defined above, for workers/employees; a space of operability in cracks and errors, to borrow from the Glitch Feminism Manifesto (Russell, 2021); fields of action in the tension between socio-psychological matter and the more or less spectral forms of the metropolis, in the extreme dilation of the gap between the subjective space and the materiality of spaces; experiments in hacking and technological counter-use; unprecedented territorial struggles that develop between the rejection of the installation of infrastructures and warehouses and the creation of new *cyborg-territorial* forms of life; and the potential for autonomy due to platforms’ continuous capture. The things listed here should be investigated further: this is a field of research and political practice still to be imagined and created. Moody’s reference to the “edges” of the metropolis introduces a crucial aspect that has not been directly tackled in this chapter: the question of the hierarchies, inequalities, and differences at play in the construction of the Planetary Metropolis 4.0. This is deeply intertwined with the tension emerging between the homogenising forces implied in the dynamics of the construction of the Planetary Metropolis 4.0 and the ways in

which it is reproduced in heterogeneous forms in diverse contexts. Again, this is a field of research and political practice should be elaborated in further research.

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# The Politics of Platforms. Exploring Platforms' Infrastructural Role and Power



Mattia Frapporti

## 1 Introduction

*Do artifacts have politics?* is the title of a well-known article that political theorist Langdon Winner (1980) published four decades ago. There he demonstrated that artifacts (infrastructures included) incorporate politics and poetics, shaping the material and virtual phenomena of our shared societal-space. Winner focused on Robert Moses' work, designer of modern New York. Moses designed bridges leading to Long Island beaches with underpasses as low that buses were unable to run under them. In doing so he restricted access to a wealthy area through infrastructural shaping that intentionally alienated working-class populations (buses' users) and their modes of transport. Taking this example, politics of infrastructures seems quite clear.

In this chapter I will assume the statement that platforms are infrastructures as well as prominent literature do, despite ambivalently. Nick Srnicek in his crucial book *Platform Capitalism* defines platforms as «digital infrastructures that enable two or more groups to interact. They therefore position themselves as intermediaries that bring together different users: customers, advertisers, service providers, producers, suppliers, and even physical objects» (2016, p. 48). Srnicek etymologically refers to platforms as infrastructures because they «position themselves as intermediaries» (Ivi, p. 57). This definition seems too large since it allows to consider every single web platform in infrastructural terms losing the theoretical strength of this definition. Oppositely, in *The Platform Society*, José Van Dijck, Thomas Poell and Martijn De Waal Van Dijck et al. stress the infrastructural character just of the so-called GAFAM (Google, Amazon, Facebook, Apple and Microsoft) because, according to them, they are the only platforms that allows other platforms to operate (Airbnb could not work without Google Maps etc.). Even this definition seems to be not properly balanced. Indeed, if on one hand GAFAM are infrastructures since they

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place side by side to their digital role a material one too (with the property of fiber cables, datacenters or warehouses), even other platforms perform an infrastructural role. This is the case, for example, of Airbnb or Uber as we will see later on. Jean-Christoph Plantin et al. go further these definitions stating that despite platforms and infrastructures originally «differ in scale and scope», today «networked computing and changing political sentiment have created an environment in which platforms can achieve enormous scales, co-exist with infrastructures, *and in some cases compete with or even supplant them*» (Plantin et al., 2018, p. 301). In other words, we see both a *hybridization* («a “platformization” of infrastructures and an “infrastructuralization” of platforms», Ivi, p. 298), and a «contemporary convergence of platforms and infrastructures» (Ivi, 301). This seems a generic-enough definition that, in line with what I shall show, gives to platforms the correct framework allowing to treat them as infrastructure in proper terms.

Once assumed the infrastructural dimension of platforms, I shall move forward. More specifically, I shall explore and extend what means to consider platforms as infrastructures in terms of politics and, ultimately, in terms of power. Indeed, collaborating or competing with the State platforms display their politics challenging Leviathan prerogatives. Should be noted that not just GAFAM do so. As a matter of fact, even platforms like Airbnb or Uber “infrastructurized the web”, playing undoubtedly a governmental role either directly (influencing or leading political decisions) or indirectly (shaping people’s life). Additionally, I shall extend the analysis of platforms power by investigating two further original sources: the use of algorithms and the extraction of users’ data. These two additional power tools led them to achieve a peculiar position in the global present as much that they cannot be considered as merely economic actors. They represent the politics within Capital: they are political players within the political arena. As such we should treat them both to grasp their actual influence on States policy and to clench the “extrastatecraft” players that address society.

Thus, after a general picture on the “politics of infrastructure”, in this chapter we will focus on three aspects related to the “politics of platforms as infrastructure”. First of all, we will show that a rigid hierarchization between platforms should be blurred. As a matter of fact, investigating the relationship with the States will clearly show how multiple platforms do politics thanks precisely to their infrastructural position. In the second section we will analyze what we consider the two most peculiar sources of power of platforms: algorithmic management and data extraction. In terms of Shoshana Zuboff, platform «revives Karl Marx’s old image of capitalism as a vampire that feeds on labor, but with an unexpected turn. Instead of labor, surveillance capitalism feeds on every aspect of every human’s experience» (Zuboff, 2019, p. 16). In other words, platforms «code society as a productive environment shaped by multifarious forms of cooperation from which they extract labor and value in an elusive way» (Mezzadra & Neilson, 2019, p. 83). Finally, we shall see how platforms achieve and play a kind of «Infrastructural Power» (Mann, 1984, 2008) where at stake are “Algorithmic Subjectivities” (Into the Black Box, 2021; Cuppini et al., 2022) or “Circulating Subjectivities” (Cuppini et al., 2023) and their conducts. While, on one hand, to apply the concept of “infrastructural power” to

platforms can shed light on the pervasive character that they can achieve in the so-called “platformized” society (Casilli & Posada, 2019),<sup>1</sup> on the other hand to define and isolate the form of power they implement, it can offer new perspectives on different and often atomized form of resistances.

## 2 About the Politics, the Grow and the Disappearance of Infrastructures

Infrastructures are living today a conceptual and theoretical contamination and enlargement. While still in 2009 Edwards et al. could note that the word “infrastructure” «often (but not always) connotes big, durable, well-functioning systems and services, from railroads and highways to telephone, electric power, and the Internet» (2009, p. 365), today this definition fits too tight. So, out of the narrow and classical definition of “material infrastructures” like—so to speak—railways, pipelines, or bridges, we can easily read about the “infrastructure of care” (Poo, 2015), “Green Infrastructures”<sup>2</sup> or—on a more theoretical layer—about the “Infrastructure of Race” (Nemser, 2017) or “Boarder as Infrastructure” (Dijstelbloem, 2021). This shows how “infrastructures” is a dynamic category that historically grows and disappears according to societal changes.

Plantin et al. brilliantly resume that «Infrastructure studies developed along two main intellectual lines. The first sought a historical perspective on large technical systems (LTS)» (2018, p. 295). From railways to electric power grids or telephone cables, infrastructures are built «when a need arises to link heterogeneous system into *network*» (p. 295). This represents the most classical approach on infrastructure studies and draws on Thomas Parke Hughes's book titled *Networks to Power* (1983)

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<sup>1</sup> Casilli and Posada identify five aspects of the “platformization” phenomenon. Firstly, platforms replaced «pre-existing modes of economic coordination». More widely, platforms literally subsume market, and present themselves as «concrete solutions to real life problems»: «as markets, they select goods, manage information, or even establish prices of its services» (p. 300). Secondly, according to Casilli and Posada (and many others), platforms use data to create value in a double meaning. On the one hand, platforms take advantage from the user-generated contents such as a video posted through YouTube, for example. On the other hand, platforms have commercial advantage from «any information provided by the users» (p. 301), even a like on a post, a picture on Facebook or an IP address attached to Wikipedia. Thirdly, platforms put users at work even unconsciously. “Free labor on the net” (as defined by Tiziana Terranova) is usually intended by platform as process of co-creation while should be considered most properly in terms of “digital labour” as Trabor Scholz did (2012). Fourthly, the “platformization of society” can be observed by the «users’ behavior fragmented and reduced to standard tasks» (p. 297): « In order to generate data and to allow algorithmic matching of different groups of individuals – Casilli and Posada state –, platforms encourage the ‘taskification’ of work, or the reduction of human activities to the smallest conceivable unit of execution (virtually, a click), to facilitate interconnection and value capture» (p. 304). Finally, what is usually described as the power of the algorithm are in fact something produced by human intense labor. According to Casilli and Posada's research, «automation [is] performed by crowds of human users» (p. 305) that mostly from the global south work hidden by a thin layer represented by algorithms.

<sup>2</sup> [https://environment.ec.europa.eu/topics/nature-and-biodiversity/green-infrastructure\\_en](https://environment.ec.europa.eu/topics/nature-and-biodiversity/green-infrastructure_en).

that conceptualizes infrastructure in systemic terms rather than isolated. Noteworthy are studies that read through an infrastructural lens the process of systems building like those of telephone, railroads, etc. Other interesting applications are those focused on the European Integration process. Known under the label of “Making Europe project<sup>3</sup>” they show how European integration was literally built on infrastructures. From railways to communication systems, from electrification to radio cable, the focus on infrastructures allowed to grasp the international process that long before the European Coal and Steel Community (usually considered as the first step of contemporary EU) paved the way to the economic and political integration.

The second intellectual line stressed by Plantin et al. «elaborated the phenomenology and sociology of infrastructures» (p. 296). This stream considers infrastructures as «actants» adopting the Actor-Network Theory (ANT) prompted by Bruno Latour. In the ANT the focus is not on the “morphism” of the object of study, but on the object itself: «*ideo-*, or *techno-*, or *bio-*morphisms are “morphism” just as much as the incarnation of some actant into a single individual» (Latour, 2005, p. 54). The “associology” of Latour is not limited to the social field, but rather looks at «another matter made of social relations» (Ivi, p. 9). Thus, Latour understood infrastructures as “actants” that convey material associations creating new collectives («new entities not yet gathered together»—Ivi, p. 75).

Following this second stream, the political aspect of infrastructures clearly emerges. Literature is teeming with books that examine the political side of infrastructures, and of artifacts more generally (Braun & Whatmore, 2010). Barbed wire, for example, has been widely analyzed in its political aspects (Netz, 2009; Razac, 2005). Railways are the infrastructures studied the most in political terms: from the process of European Integration (Anastasiadou, 2008; Frapporti, 2019; Opitz & Tellman, 2015; Schot et al., 2011) to the focus on North American states (most famous is Innis, 1923 on Canada). Other examples on the political role undertaken by streets (Guildi, 2012), power plants (Collier, 2011) or Information Technology (Fickers & Griset, 2019) could be made. Whatever they compose, and whatever it is the form they take, the political role infrastructures play is clear. What is interesting is that such a role could be taken by artefacts that were not considered in infrastructural terms when they were born.

This is the reason why the concept of “infrastructures growth” deserve attention, even though it is usually applied to the LTS approach. According to Edwards et al. infrastructures live in three phases: gateway, growth and consolidation. In the first one, separate heterogeneous systems are linked together «to form more powerful and far-reaching networks» (2009, p. 369). This is the phase when a technology per se reaches the infrastructural dimension, offering «service (lighting), rather than a commodity (electricity) or an isolated device (the light bulb)» (Edwards et al., 2007, p. 8, see also Edwards et al., 2019). The second phase regards growth and technology transfer: «Once an LTS has been successfully constructed in one location, *technology transfer* to other locations (organizations, cities, nations) follows» (Ivi, p. 9). This implies that it could incorporate properties originally dissimilar, homogenizing and

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<sup>3</sup> <https://www.makingeurope.eu/>.

spreading a standard. Just bore, railways had a different gauge according to the different companies. A crucial step for railways to become infrastructure was the assumption of a common gauge (the Stephenson one).<sup>4</sup> Finally, in the consolidation phase there is a “network formation”. Different systems became infrastructures to find the way of interoperating: «In rare cases, one system wins total victory over the others. More often, developers create *gateways* that allow previously incompatible systems to interoperate» (Ivi, p. 10).

Despite Edwards's analysis being primarily relevant for material infrastructure that composes LTS, we think that it can be applied to platforms too, whose “growth” to the infrastructural position has been dramatically swift. Today platforms sustain everyday life as well as other infrastructure. In doing so, they perform an intrinsic political role not always in broad daylight. Re-elaborating the famous state of Mark Weiser, “The most profound infrastructures are those that disappear”.<sup>5</sup> Hiding their position, they appear just taken for granted. That is why the role played by platform workers' struggles in the last year deserves a constant attention: struggles reveal something that would aim to be hidden. We will focus on them again in the last part of this chapter.

### 3 The Politics of Platforms and the Relation with the State

«The distinction between infrastructural and sectoral platforms is not fixed or set; rather, there is a constant dynamic that drives them toward integration» (Van Dijck et al., 2018, p. 17). Despite a quite clear reasoning throughout the book regarding the distinction between infrastructural and sectoral platforms, even Van Dijck et al. are not taking for granted the unchangeability of the two sets. Rather, «the status of platforms is subject to continuous change, a process we call “platformization”» (Ivi, p. 18). As they note, even “sectoral” platforms like Uber could play the role of “complementor” indeed, which is the main character they consider highlighting the “infrastructural role” of the GAFAM. From our perspective, we could add few further assumptions that verify not just their infrastructural position, but also their politics in relation with the States one.

Firstly, since 2007/08 economic crisis, platforms of different kinds have occupied and “infrastructurized” digital space, raising several issues. Like material infrastructures, digital infrastructures connect but, at the same time, restrict and impose behaviors. It is uncommon today to book a non-hotel accommodation in Europe or North America without using Airbnb or Booking.com. Similarly, it is unthinkable to penetrate a community of users as large as WeChat do in China.<sup>6</sup> To same extent,

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<sup>4</sup> The Stephenson standard is just adopted in most of Western World, North Africa, Middle East and China. Other zones have still another gauge.

<sup>5</sup> Original state sound as follow «The most profound technologies are those that disappear» (Weiser 2001).

<sup>6</sup> WeChat is a very interesting case that deserve particular attention. As pointed out by Plantin and Gabriele de Seta in a 2019 article, «WeChat now combines the proprieties of platforms and



we could focus on Rappi or Mercadolibre too, that once again answer to the same characteristics of US or Chinese “infrastructural platforms” but in Latin America (see De Stavola, 2020; Filippetto & Harraca, 2022). In all these cases, “alternative” channels are not disappearing, but the hegemonic trait that these platforms impose is evident. After all, even when the railways became widespread in the XIX century, it was still possible to transport goods via the river system, but opportunity addressed the choice.

The second reason why a hierarchization of platforms should be nuanced is more intertwined with the political and governmental character of their operations. Multiple platforms can be considered as part and parcel of the complex network that makes up contemporary governance. Benjamin Bratton calls such network «The Stack» (2015). It is worthwhile to delve into this concept because it can help us to highlight the political character of platforms.

According to Bratton, “The Stack” is an «accidental megastructure» composed by six interdependent layers (Earth, Cloud, City, Address, Interface, User) that could be conceived as a model: «simultaneously a portrait of the system we have but perhaps do not recognize, and an antecedent of a future territory» (Bratton, 2015, p. 5). Constantly confronting with the great philosophers of sovereignty (from Hobbes to Weber and Schmitt), Bratton’s crucial assumption states that «our contemporary condition is qualified both by a debordering perforation and liquefaction of this system’s ability [those based on States] to maintain a monopoly on political geography, and by an overbordering, manifest as an unaccountable proliferation of new lines, endogenous frames anomalous segments, medieval returns, infomatic interiors, ecological externalities, megacity states, and more» (Ivi, p. 6). Thus, he understands the Stack as a «scale of technology that comes to absorb functions of the state and the work of governance» (Ivi, p. 7). In these terms, platforms play as political subjects that could act both in coordination and in competition with the State.<sup>7</sup>

As far as coordinated government is concerned, the cases to be recalled could be manifold. To cite just a few examples, think of the US NSA’s capillary surveillance revealed by Edward Snowden, or of Cambridge Analytica that involved not only platforms such as Facebook, but also prominent political figures such as Steve Bannon. In China such a process of algorithmic and data control is even stronger and more evident. With some regulatory acts at the end of 2021, the Chinese government

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infrastructure» (2019, p. 2): it is similar to Western “infrastructural platforms” like the GAFAM, but «with Chinese characteristics» that combine platform features with «platform protectionism», «governmental control» and «nationalization». All in all, WeChat «is a vector for infrastructure building endeavors that prove to be both more successful than their state-backed precedents, and more controllable than purely private entities» (2019, 13).

<sup>7</sup> Bratton argues that if the State derives its notion of sovereignty from the occupation of territory, platforms govern the Cloud which is just a separated but intertwined Layer of reality. In these terms, the metaphor of “the Stack” seems once more effective in reading sovereignty outside of State exclusivity and sometimes even opposed to it. This does not mean that State power is disappearing. Rather, that is remodulating. Point then «is not another prophecy of the declining state withering away into the realm of pure networks, but to the contrary, that the State’s own pressing redefinition takes place in relation to network geographies that it can neither contain nor be contained by» (Bratton, 2015, p. 114).

erected the so-called Great Firewall trying to fight against internet a-territoriality and imposing a State data control coordinated with the digital platforms. All this shows how artificial intelligence, platforms and, more generally, algorithmic technology are sometimes sought by States to complement their political functions.

On the level of competing government, multiple platforms openly challenge the prerogatives of States in several directions. Firstly, on the digital side, we would recall the challenge to one of the cardinal principles of the State, that linked to the minting of money: the attempts of some platforms like Facebook (with Libra) or more recently like Apple,<sup>8</sup> to spread a digital currency is meaningful. Furthermore, it competes with the State in terms of scientific research: in many cases private companies in general, and platforms more specifically, invest substantial resources in R&D nowadays, even if they are “throw-away investment”. Then, we could recall welfare policies implemented by platforms for their workers. In 2022, a great debate was generated in the United States around the Supreme Court's decision to overturn the Roe vs Wade ruling denying abortion the status of a federal right. On that occasion, Amazon offered to cover the costs of travel for its employees to get abortions in states where it was still legal. Same could be said for Airbnb or Uber inner employees. Another example of competing government clearly rises if we look at China and at the first «Sino-Google War» of 2009, «a conflict not only over the right to control search engine results, but indeed over the predominance of two different modes of sovereignty» (Bratton, 2015, p. 112). War started after the request of China to monitor and control search results on Google within the Chinese territory. Due to Google's refusal, platform was pulled out from the State since 2012, and even today the use of Google (and its services like YouTube, Google Maps, etc.) has remarkable restrictions. The war between State actors and non-State actors was «less between two superpowers than between two logics of territorial control» (Ivi, p. 112). A logic that, widened applied, shows clearly how platforms are far from being just a technical object or an innovative economic business model.

Out of such ambivalent relation with the State, platforms politics is clear also when we think on their hegemony in the production of discourse or to their action in moderating users' contents (Twitter and Facebook's “censorship” of Donald Trump's tweets is well known; similarly, we could consider the “censorship” on the Covid-19 denialist decided by a private company). Furtherly, it could run to their functions as a political flywheel, as during the “Arab Springs”, which still saw Twitter as a decisive social media in terms of communication and organization (so much so that there has been talk of “Twitter Revolutions”), or like it has more recently happened in Hong Kong.<sup>9</sup> Finally, the politics of platforms is clear where we look at the challenges that they (im)pose to the labor market, as showed in the PLUS project, which has in fact been disrupted by their arrival.

In multiple situations platforms do politics. Sometimes they do so in coordination with the States. In other cases, they do so in competition with authorities. Either

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<sup>8</sup> <https://www.forbes.com/sites/derickdavid/2022/04/11/apple-and-crypto-heres-what-you-should-know/>.

<sup>9</sup> <http://www.intotheblackbox.com/articoli/riot-logistics/>.

way, platforms' impact on social life is far to be confined on their surface. Amazon is far to be just a logistics player; Uber is not just a hailing platform; Facebook is out to be a simple social media. Executive chairman of Meta Mark Zuckerberg stated as follows in 2017: «“In a lot of ways Facebook is more like a government than a traditional company. [...] We have this large community of people, and more than other technology companies we're really setting policies”».<sup>10</sup> Zuckerberg seems clear enough.

## 4 Sources of Power: Algorithmic Governance and Data Extraction

Popular Netflix series *Black Mirror* dedicated a full episode to algorithmic governance fed by data extraction. In the dystopian scenario depicted in the episode entitled “Nosedive” everyone in society shares their activities and rates (or were rated) by other people or authorities. According to rating, people could have access to services allowed by algorithmic management and data elaboration. Today such situation is a tangible reality. Algorithms are used for rating, scoring, prediction, terrorism prevention, combat tax evasion, border control, migration management and so on thanks to the data that feed them. All this implies different and controversial perspective (Katzenbach & Ulbricht, 2019). Nonetheless, it is a kind of truism to state that their impact on society is more than perceptible and often implemented through platforms which take advantage from these two new sources of power: an algorithmic way of governance and an uncountable amount of data extracted by people's lives. In this section we shall explore these two sources of power.

Firstly, in digital platforms the algorithm is law. As Robert Gorwa stresses recalling Lawrence Lessing: «“code is law”, and the decisions made with respect to design by the curator of an online service effectively correspond to a form of regulation» (2019, p. 859). In a society where many relationships are mediated by platforms and where their penetration into multiple domains has become a de facto part of society itself, their power is increasingly palpable. The algorithm «enables and imposes specific forms of user behavior», Gorwa argues (*Ibid*—we will be back on this).

Furtherly, the role of the algorithm shows an unprecedented character of today's capitalism, namely the need to govern increasingly complex and intertwined systems based on the principle of *just in time and to the point*. Such “logistical rationality” reinforces the need to rely on computational algorithms also in support of and in parallel with political governance. As Frank Pasquale stated: «authority is increasingly expressed algorithmically» (2015, p. 8). In support of governance, authority use algorithms «to ostensibly allocate welfare benefits, combat tax fraud, secure the border, police communities, and prevent terrorism» (Srivastava, 2021). In parallel, States or even municipalities could use platform algorithms for governance purposes.

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<sup>10</sup> <https://www.theguardian.com/technology/2017/sep/19/facebooks-war-on-free-will>.

A very interesting case is Lisbon, whose municipality co-created a new urban planning with Uber thanks to «microdata on transit and urban mobility» collected by the platforms (Tomassoni & Pirina 2022, p. 257).<sup>11</sup> Similarly, Cincinnati «taps Uber data to improve local transit».<sup>12</sup> Thanks to Uber data sharing platform called “Movement”, Uber provided the municipality «Uber’s data to help urban planners make informed decisions about our cities».<sup>13</sup> Same has been done in Melbourne, Sydney, Perth, Brisbane,<sup>14</sup> Manila,<sup>15</sup> Washington DC,<sup>16</sup> or multiple other cities in the US.

The capacity of extract data is the second decisive source of political power (and economic valorization) for platforms. The extractive power of Capitalism is today not just conveyed on raw material (Arboleda, 2020). Rather, extractive power of contemporary capitalism refers to users’ data. As Mezzadra and Neilson brilliantly showed, «Today we do not just mine coal, nickel, and other raw materials; we also mine data. Moreover, the forms of extraction implicit in data mining and other extractive activities that prey on human sociality are ever more at the edge of capital’s expanding frontiers» (2019, p. 38). Thus, data can be either extracted or created by platforms, codifying users’ behaviors: this implies a process of “datification” (see Van Dijck et al., 2018, p. 33), a further source of political power for platforms.

Data accumulation revolutionized capitalism at least since the early Eighties. After innovation in logistics (so-called “Logistics Revolution”, see Allen, 1997; Bonacich & Wilson, 2008; Cowen, 2014), in the 80 s another “Revolution” occurred in the field of retail: Wal-Mart became the new paradigmatic brand of economy (Lichtenstein, 2010). Thanks to Logistics Revolution, retailer power drastically increased telling to «manufactures what consumers were actually buying and therefore what the manufactures should produce, when they should produce it, and, sometimes at what price» (Bonacich & Wilson, 2008, p. 6). Retail Revolution represents the beginning of the *just in time to the point* era, which is a sort of mantra for contemporary capitalists. Before Amazon, Alibaba, etc., Wal-Mart gained (economic) power mining data from its clients. As Bonacich and Wilson put it: «the collection of POS data put power into the hands of the giant retailers. They knew consumers were buying, which prices were most effectively maximizing sales, which products were gaining and losing popularity, and how buying patterns were differing demographically and regionally» (Ivi, pp. 7–8).

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<sup>11</sup> Must be said that these agreements soon fell due to the scarcity of data shared by the companies, which, despite signing the memoranda, turned more directly to the national government, effectively rendering the agreements with the municipality a dead letter Tomassoni e Pirina “Portugal: um laboratório para a Uber”, Le Monde Diplomatique, <https://pt.mondediplo.com/spip.php?article1314>.

<sup>12</sup> <https://statescoop.com/cincinnati-mobility-lab-taps-uber-data-to-improve-local-transit/>.

<sup>13</sup> <https://www.uber.com/newsroom/introducing-uber-movement-2/>.

<sup>14</sup> <https://medium.com/uber-movement/helping-build-the-ipa-transport-metric-to-see-how-cities-move-1656e1da7e54>.

<sup>15</sup> <https://medium.com/uber-movement/analyzing-trends-in-2015-holiday-travel-conditions-dbd572fcd072>.

<sup>16</sup> <https://medium.com/uber-movement/the-effects-of-dc-metrorail-service-disruptions-on-traffic-congestion-8a14c8d5fa7c>.

Today we live in such situation on an extreme level: “Datafication”, together with data collection and elaboration, exacerbated what started with the “Retail Revolution”. The capacity of platforms to «instantaneously track individual and group behavior, aggregate these data, analyze them, and translate the results to users, marketers, and advertisers, as well as to a wide variety of public institutions, organizations, and corporations» (Van Dijk et al., p. 35), it is outstanding. It is what Shoshana Zuboff considers one of the main features of “Surveillance Capitalism” which «unilaterally claims human experience as free raw material for translation into behavioral data» (Zuboff, 2019, p. 14). Zuboff calls these data “behavioral surplus”, human activities datafied and then transformed into value and predictions. In the Surveillance Capitalism, this extraction of data aims both at value accumulation and at governing human behaviors. It is a matter of conducts. In Foucauldian terms, it is a matter of governmentality which is «the set of instances that adapt the exercise of power to the centrality of the economy rather than of law» (Chignola, 2022, p. 38).

To sum up, algorithms management and access to data is a decisive element in promoting the political role of platforms insofar as the implementation of public policies is also based on data knowledge and elaboration. Despite multiple attempts of public regulation of digital platforms, what matters more today is not the return of the State, but rather the encroachment of platforms into the terrain of politics should be highlighted. Bratton, Zuboff and many other authors did so. In this paragraph we tried to enforce this demonstration that lay on the politics of platform. Now, in the last section, we will expand on platforms’ use of data for shaping social behaviors, even where State itself cannot (always) arrive.

## 5 Shaping Conducts by Extracting Data: Platforms’ “Infrastructural Power”

As seen in previous section, algorithmic management and data accumulation and elaboration are constantly implemented by platforms to govern conducts. We already qualified such subjectivities shaped by digital infrastructures as algorithmic (Into the Black Box, 2021; Cuppini et al., 2022) and circulating (Cuppini et al., 2023) to underline also the role played by data flows and elaboration. In this last section, I will define more narrowly such platforms’ power that shapes conducts as an “infrastructural power”: those that Michael Mann in 1984 referred to as the State and that today seem easily transferred to other Capitalist actors such as platforms.

According to Mann, “infrastructural power” refers to the «capacity of the State to actually penetrate civil society, and to implement logistically political decision throughout the realm» (1984, p. 113). Differently from the past, Mann asserted, «the State penetrates everyday life more than did any historical state» (Ivi, p. 114). It can act accordingly because:

«[The State] stores and can recall immediately a massive amount of information about all of us; it can enforce its will within the day almost anywhere in its domains; its influence on

the overall economy is enormous; it even directly provides the subsistence of most of us (in state employment, in pension, in family allowances, etc.)» (*Ibid*).

Furthermore, Mann recalled economic power grouping like General Motors looking for economic advantages that were not territorially confined. Differently from them, «only the state is inherently centralized over a delimited territory over which it has authoritative power» (Ivi, 123). Considered in these terms, the “infrastructural power” of States in Capitalism 4.0 seems to be questionable at least from a double side perspective. Firstly, because what Mann considered «the most important precondition of state power» (those of territoriality, p. 122) seems today blurred. Secondly, because the means toward which State penetrates everyday life are rather in the hands of platforms. In what follows we shall isolate the main features that Mann bestows to “infrastructural power” showing that they are today compelled by platforms.

First of all, today infrastructures, political or economic arrangements can contribute either to the rise of “new political entities” or to put into question existing political space, rewriting the global political cartography. In 2004 Neil Brenner was quite clear recalling that «it is no longer capital that is to be molded into the (territorially integrated) geography of state space, but state space that is to be molded into the (territorially differentiated) geography of capital» (Brenner, 2004, p. 16). And he was not the sole who stressed so in those years (see for example Hardt & Negri, 2000; Sassen, 2006). Far before the rise of platforms as new actors of contemporary governance, many critical theorists stressed the variety of spaces that mark contemporary geography (Cowen, 2014; Easterling, 2014; Frapporti, 2019; Grappi, 2016). Precondition for State infrastructural power seems weakened in today's political geography. States do not seem the sole actors that exercise sovereignty on a given territory.<sup>17</sup> Rather, it shares its prerogatives and its territorial infrastructural power with many other governance subjects.

Secondly, States are not the main repository of people's data today, something crucial in Mann's perspective to impose an “infrastructural power”. Rather, platforms seem to have this advantage. Platforms “can recall immediately a massive amount of information”, indeed. We saw above how today platforms enclose the power both to collect user data and to codify any behaviors into data. In such perspective they benefit of an even higher degree of “infrastructural power” compared with the State one, since they can collect and use further information extracted thanks to the penetration into the intimacy of people's lives.

Such a feature gives to platforms the substantial capacity to “enforce their will”. According to Zuboff, «Under surveillance capitalism, the “means of production” serves the “means of behavioural modification”» (2019, p. 331). She names this species of power as “instrumentarianism”, considered as «the instrumentation and

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<sup>17</sup> State has never been the sole governance actor on a defined territory. As shown by Charles Maier: «Although political theorist have often insisted that sovereignty is absolute, in practice it has often been partial or nested within imperial or associative structures» (Maier, 2014, p. 7). Maurizio Ricciardi too claim that it is completely wrong to consider the State as «the sole and sometimes the only indicator of order in modern society» (Ricciardi, 2013, 82).

instrumentalization of behaviour for the purposes of modification, prediction, monetization, and control» (Ivi, p. 332). Despite it is not the case to recall “digital totalitarianism” as many did (see a thorough list in Zuboff, 2019, p. 622), platforms can be considered as «the puppet master that imposes its will through the medium of the ubiquitous digital apparatus» (Ivi, p. 353). Once more we see how infrastructurally they can impose themselves as truly form of power.

About the great “influence on the overall economy”, the point seems even underestimated. If we focus on Amazon, we see how it yearns for the building of an extended and hierarchical ecosystem, expanding toward or incorporating other capitalistic realities. Amazon’s ambition is to compete not *in* the market but essentially *with* the market, which is something it shares with a multitude of other platforms (such as Airbnb, for instance, which tends to catalyze hosting).

Finally, platform sometimes “directly provides the subsistence of most of us”. Facing the constant erosion of public welfare, for example, today platforms increasingly guarantee to their employees—and only to them—access to health and care services. This is not new, but it is becoming structural and that considerably increases platform governmental role. In case such that of Amazon in the US and Canada this appears outstanding. From access to affordable housing to free dentist or Amazon Canada Refugee Support Program,<sup>18</sup> the company uses such promises to build workers’ loyalty offering to them a kind of additional citizenship.<sup>19</sup>

“Infrastructural power” allows platforms to enter people’s lives similarly as State do. In this section we showed such feature taking the definition of “Infrastructural power” offered by Mann and decomposing it in order to test if the different parts could be applied to the platforms’ way of action rather than that of States. Thus, we saw that today platform incorporates many characters of what were considered States prerogatives indeed.

## 6 Conclusion

In this chapter we have tried to show multiple characters of platforms that link the role they play within society to the governmental sphere. In doing so we have problematized and reshaped the perspective that reserves the role of infrastructure just to the GAFAM. Indeed, we stress that other platforms like Airbnb or Uber for example, play a similar role. On one hand, the latter too have “infrastructurized” digital space “forcing” users to pass through them in order to get access to services. Take Airbnb. Although it shares the worldwide control on online accommodation

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<sup>18</sup> <https://www.newswire.ca/news-releases/amazon-canada-launches-innovative-refugee-program-offering-vital-resources-to-meet-critical-needs-of-refugees-resettling-in-canada-872955077.html>.

<sup>19</sup> As emerged talking with Amazon Unionist in Canada, these are promises not always realized: sometimes they appear just as a chimera. See [www.intotheblackbox.com](http://www.intotheblackbox.com).

booking market together with Booking.com and Expedia.com,<sup>20</sup> in terms of non-hotel accommodations and so-called Peer-to-Peer economy it has no rivals. It became a crucial infrastructure of global tourism, much more than any other.

On the other hand, many platforms and not just GAFAM play as governmental actors, as showed in the third and fourth sections. Infrastructures have politics. Platforms, as infrastructures, have politics too. They are part of the complex set of powers that govern society: Benjamin Bratton calls “the Stack” such a set of powers; Foucault talked about governmentality to identify the multiple forms of powers; Charls Maier talks about “Leviathan 2.0”. Point is to get out «from the enchantment that refers power only to the State» (Chignola, 2022, p. 91). Platforms' power (and platforms' politics) can be carried out in coordination or in competition with the State. In any case, once platforms are growing stronger, they are keen to compete with institutions: they can do so mostly thanks to their great capacity of extract, accumulate or even “create” data, and to the algorithmic capacity of implement decision. Amazon and Google are clear examples of such platforms, but they are not the only ones.

Finally, in the last section we saw the form of power that platforms exercise which can be defined as a sort of “infrastructural power” in Michel Mann's terms. Through their infrastructural power platforms can shape conducts: data accumulation allows them to enforce their will over population. It is not by case that precisely against platforms burst very important struggles in the last years. Assuming that power can only be analyzed just «starting from what resists it» (Foucault recalled by Chignola, 2022, p. 22), the role played by platforms even during the pandemic revealed its increasing centrality within society. For such a reason it is crucial to keep the focus on it. Struggles allow to keep the attention on a power that, as well as infrastructure, aims at disappearing.

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<sup>20</sup> <https://www.businesswire.com/news/home/20221114005897/en/Global-Online-Accommodation-Booking-Market-Analysis-Report-2022-Booking.com-Airbnb.com-and-Expedia.com-Dominate-the-Market---ResearchAndMarkets.com>.



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# Managing the Will: Managerial Normativity from the Wage Society to the Platform Age



Massimiliano Nicoli and Luca Paltrinieri

At different times in the history of industrial capitalism, the firm has replaced the State, or anticipated it, by constructing regulatory models which were then legally sanctioned by State legislation, or generalised within public policies concerning, for example, education systems. This is what Pollman and Barry (2016) call “regulatory entrepreneurship”. Alongside this legal normativity, management practices have always entailed a *psychological* normative production aiming to shape the workforce as a subject, also according to the political instances of current forms of State governmentality. Indeed, the very birth of modern management is to be conceived in relation to these practices of production of forms of subjectivity in the workplace (du Gay, 1996; Nicoli & Paltrinieri, 2015; Rose, 1990).

The question to be asked in this chapter is: *how does managerial normativity change when firms become platforms in the digital turn of neoliberal capitalism?* Starting from the paradoxes and antinomies between subordination and autonomy of the individual will, traditionally characterising wage labour, we will first show how modern managerial discourse has produced the notion of “psychological contract” to regulate such antinomies. Thus, the psychological contract will be grasped as a supplement of normativity making workers not only consent to the legal subordination of the employment relationship, but also voluntarily choose to construct their subjectivity by commitment and job performance.

In particular, we will focus on the transformations of the psychological contract in the post-Fordist age and within the neoliberal governmental rationality centred on the notion of human capital. Our aim will be to highlight how, in this context of the crisis of wage labour and its legal forms, the psychological contract redefines

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itself as a “self-contract” in which individuals can voluntarily produce themselves as neoliberal subjects by practices of self-management and self-investment. In this sense, we will propose to inscribe the self-contract in the history of the “direction of conscience” or “government of souls” (Foucault, 2016), i.e. the practices of the social construction of the individual will by relations of direction, subordination, and even obedience.

Next, we will briefly describe the transformations of the firm and management in the platform age and the spread of the gig economy, showing how digital platforms deepen the transformation of labour into self-employment and outsource a large part of traditional managerial functions to the operations of algorithms. As we will see, this brings about a new change in managerial normativity that leads us back to our initial question. Finally, the answer to that question will be sought in the social dissemination of evaluation and assessing practices implied by algorithmic management, inside and outside business. That means that management, namely Human Resource Management, is redefined as an extractive *ecosystem* of evaluation involving a new form of externalised psychological self-contract through which individuals self-govern and self-control in order to maximise their self-appreciation. In this sense, the “becoming platform” of the firm in the framework of the gig economy and human capital-focused neoliberal governmentality participates in the construction of what we will define here as “Self-Worth Political Economy”. To conclude, we will consider this new form of political economy as an extension of the logic of financial valorisation to the scene of individual subjectivation that tends to replace wage with the possibility of self-investing and constituting oneself as a *subject of value* willing to assess and to be assessed.

## 1 Wage Labour and Its Paradoxes

As jurists have observed, notions like “employment contract” or “wage labour” imply a conflict between two laws: business law, which postulates the autonomy of the individual will, and labour law, which organises the submission of the will, or the “subordination” to an authority. The subordination within the employment contract thus incorporates an antinomy that Roman law had clearly seen refusing to admit that a free man can remain free when he places himself in the service of others (Supiot, 2017). This antinomy has repercussions on a series of aporias, or paradoxes, specific to the wage labour.

Firstly, the commodification of labour presupposes a neutral and symmetrical relationship between two contracting parties—the worker and the principal—who remain free in their choices and actions. The employment contract merely represents the formalisation of the worker’s consent to the use of their workforce by a third party. The principle of contractual freedom thus presupposes the autonomy of the will, as the only force creating obligations and rights in so-called “democratic” societies (Ranouil, 1980). According to this principle, the individual can only be obliged to those obligations to which he or she has voluntarily subscribed. However, by

this same contract of subordination, the workers renounce their own will and agree to be reduced to the rank of an instrument, so that the principal can make use of their workforce. Inequality is thus established by the very nature of the employment contract, which is placing the worker at the disposal of the principal without giving a more precise determination of the employee's obligations.

During the performance of the contract, the employer thus acquires a continuous right of direction over the employee's activity, while the latter is bound by a duty of obedience which, while not without limits, clearly marks his position as a "subordinate". If, in the civil contract, commitment implies freedom, in the labour contract submission denies it. Therefore, the employee is apprehended in the business enterprise as both subject and object of the contract (Supiot, 1994). In other words, consent to submission must be free: the worker chooses his own servitude. This also explains why slavery and serfdom have always been negative terms throughout the history of wage labour: while the slave was conceived as an instrument extending the master's body, wage labour appears as the captive instrument of the owners of the means of production. This instrumental nature of labour justifies the hierarchical and unequal relationship between the employer and the employee, who must obey the orders of the former as stipulated in the employment contract: *Pacta sunt servanda*.

There is also a second paradox: at the same time as it is commodified by an employment contract, labour is also removed from the market by a brand-new actor, the firm. The capitalist enterprise, which only appeared at the end of the nineteenth century, is usually presented as an intermediation surface between capital and labour allowing the abolition of transaction costs, more specifically the costs generated by research, negotiation, training, and management of the labour force (Coase, 1990). The internalisation of labour previously available on the market allows significant savings to be made by imposing vertical and hierarchical cooperation instead of the unorganised "spontaneity" of the market. But this collective activity based on vertical and horizontal cooperation requires workers to be permanently integrated, so that the workforce can be continuously trained and adapted to technological changes. Through the concept of "real subsumption" of the labour process by capital, Marx had already shown this submission of the worker and the whole society to capital by means of wage labour. By transforming social relations and labour processes, capital shapes workers' bodies and minds as adapted to the task: the worker becomes an instrument of the instrument, not only subjected to the will of the employer, but also to the machine (Durand, 2004; Marx, 1990). Thus, from the moralisation of workers in the nineteenth century to Taylorism, the history of wage labour is also that of the progressive adaptation of the workforce to the technological transformations that make it possible to obtain a competitive advantage in the market. In this aim, however, management had to be instituted as an alternative to political government, where the power of the rulers over the ruled was limited by a system of checks and balances (Anderson, 2019). The institution of management as a form of government which is free of any democratic control entails that the workers give up their citizen rights at the gates of the enterprise in order to gain access to economic independence (Trentin, 2014).

This last point leads us to the third paradox, which has to do with the place of employment in our societies since the “Fordist compromise” between capital and the State. The capitalist enterprise can be seen as an intermediary institution between the State and the family, establishing the ground of modern individualism: the economic independence of the worker allows him to emancipate from family, creating the conditions of political freedom exercised in the framework of modern democracies. In addition to the wage, the employment contract gives access to social status, social rights, and forms of protection and integration (Castel, 2003). By accepting the legitimacy of the legal subordination, Trade Unions tried, during the twentieth century, to enable workers to protect themselves and to establish a power relation with their employers, thus acquiring economic rights and social protection (Fehrer, 2018). It is indeed the link between work, citizenship, and freedom that makes it possible to radically distinguish the wage condition from slavery or serfdom. Consequently, the experience of the salaried worker was divided into two spheres: the one of work, where a relationship of servitude and obedience is continually renewed, and the one of personal relations and the private life, where the subjects experience “freedom” as the satisfaction of their needs. But if we look closely, economic independence only gives access to a sphere of consumption whose existence is still motivated by the growth of capital (Arendt, 1958).

## 2 Management and Psychological Normativity

The fundamental antinomy between wage subordination and individual will autonomy runs more or less explicitly through the history of management, which has organised the conditions in which workers can choose their own servitude. That is to say, the history of legal normativity concerning labour is complemented by the production of a “psychological” normativity targeting the worker’s subjectivity and in particular his or her will. We believe that the notion of “psychological contract” is the name of this supplementary normativity aiming to regulate the paradoxes of the wage condition.

In the Human Resource Management (HRM) literature, the notion of psychological contract refers to the set of expectations and promises, most often implicit, that exist in an employment relationship but cannot be formalised in a legal employment contract. According to Denise M. Rousseau’s “classic” definition, the psychological contract consists of individual beliefs, shaped by the organisation, concerning the terms of an agreement about what individuals and the organisation exchange (Rousseau, 1995). In psychology and HRM textbooks as well as in job search sites, one constantly finds the idea that positive and proactive management of the psychological contract can transform employees into artisans of the company’s success. It can animate work with real passion and create an integrated organisation in which everyone will row in the same direction, according to the old metaphor of the corporate boat. The psychological contract is in fact linked to the level of commitment and to the “inner disposition” to fulfil the technical-legal obligation of the employment

contract “in a spirit of cooperation, trust and with a strong engagement” (Costa & Gianecchini, 2005: 204).

This insistence on the psychological contract as a necessary supplement to the legal contract is justified by the incompleteness and indeterminacy of the latter, which, being established prior to the job performance, can only refer to a future engagement and to an immaterial sphere of promises and expectations (Erbès-Seguin, 1994). Precisely because the employment relationship takes place in two distinct times (first the contract and then the performance), the commitment of the workers and the quality of their work are impossible to specify *ex ante* (Bargain, 2014: 93–94). The legal contract establishes the relationship of subordination between the employer and the employee but cannot specify a priori the workers’ will to fulfil the obligations foreseen by making *the best* use of their stock of skills and knowledge, which, unlike the other factors of production, remains a property of the worker (cf. Costa & Gianecchini, 2005). This “willingness” has to be continuously renewed during the employment relationship. From this point of view, the psychological contract can be seen as a contractual mechanism that compensates for the uncertainty of the job performance, thus complementing the legal agreement (Bargain, 2014: 93–94).

The HRM literature insists on the relatively recent origin of the notion of psychological contract. In fact, during the twentieth century and especially during the “The Post-war Boom”, the psychological relationship between the individual and the company was played out mainly in an exchange between subordination, loyalty, commitment, and good performance on the one hand, and job stability, certainty of wage, access to social protection and the possibility of career development within the organisation on the other (Argentero et al., 2010: 159–180). The regulatory framework established by collective bargaining and the State legislative function constituted the conditions of possibility of this form of contract—the hegemonic one when the notion emerges during the 1960s. Moreover, as Rousseau (1995) remarks, psychological contracts are distributed along a contractual *continuum* between “transactional contracts” (economic motivation prevails, personal involvement is limited, flexibility is low, no skill development) and “relational contracts” (emotional involvement, consideration of the person in all dimensions, broad commitments that can affect personal and family life, professional and personal development).

In this sense, the psychological contract can be seen as an extra-legal tool—a supplement of normativity—that participates in the real subsumption of labour power, making workers not only accept the subordination of the employment relationship but also voluntarily choose not to dissipate their workforce outside the production apparatus (Foucault, 2015; Nicoli & Paltrinieri, 2015). From Taylor’s *Scientific Management* to the *Human Resources* approach (Miles, 1965) via Mayo’s *Human Relations*, managers elaborate forms of “psychological negotiation” pushing the employment relationship from the transactional to the relational side. The latter, in fact, seems more effective in terms of producing an effect of “voluntary servitude”. Indeed the relational psychological contract involves the very will of the worker, by the promise of personal development, thus making the subordination of the employment relationship something desirable in itself. Whereas the transactional contract

focuses on the dimension of exchange and rational choice without touching the individual will (the worker chooses to accept the subordination relationship but can continue to want something else), the relational contract reaches the very core of that will: individual subjectivity.

As Raymond Miles, the founder of the *Human Resources* approach, wrote in 1965, the best way to increase employees' performance is to encourage responsible, self-directed, and self-controlled behaviours. In contrast to the *Human Relations* model, the *Human Resources* approach is not about increasing participation to improve subordinate satisfaction and morale so as to get obedience in return. Rather, it is about stimulating individual, autonomous, free, and creative action to increase productivity and thus improve satisfaction and morale, thereby triggering a virtuous circle. Miles assumes that the free and autonomous action of individuals does not hinder business goals, but that presupposes indeed a managerial action on what is supposed to be the principle of freedom and autonomy: the individual will. And that is rightly the sphere where the relational psychological contract lies.

However, we believe that there is no break between Fordism and post-Fordism in the history of management discourse: rather, from Taylor to the present day, it is a continuous evolution consisting in moving from a voluntary servitude based on rational choice or ideological manipulation, to another in which the formation of the will is at stake. Or rather, the most important managerial issue is finally to fill the empty form of individual will with specific contents: management states what the worker should want. But if until the end of Fordism, this operation could remain a project or a kind of ideological lubricant, with post-Fordism it becomes an emergency to be inscribed in the reality of management practices.

### 3 From the Psychological Contract to the “Self-contract”

Indeed, the psychological contract centred on job security and stability began to change in the 1980s, namely with the post-Fordist transformations of work and firm. Collective and universalistic legal frameworks of labour regulation evolve too slowly and hinder the metamorphosis of organisations from the “bureaucratic” to the “adhocratic” stage (Rousseau, 1995), in which individuals are called upon to design their own careers as “managers of the self”. At the same time, the massive affirmation of neoliberal policies leads to the emergence of the model of the “entrepreneur of the self”. As a subjective embodiment of the theory of human capital developed since the 1960s by the economists of the Chicago school, such a model updates the subject of interest of the bourgeois tradition and constitutes the *pivot* of a societal project in which (self-)entrepreneurial behaviour must be multiplied among the entire population, regardless the actual creation of business (Foucault, 2010). According to this economic, political, and anthropological model, each individual is supposed to be responsible for their endowment of human capital—the stock of skills that makes a subject capable of earning a certain income. Hence, the need to continuously invest in it in order to valorise, appreciate, and adapt



it to the changing labour market demands (cf. Feher, 2009; Paltrinieri, 2013). *Self-management, self-entrepreneurship, self-investment*—these are the fundamental operations characterising neoliberal subjectivity.

The field of labour law has not been spared by this process of political and social transformation. Under the aegis of the Court of Justice of the European Union and the theoretical influence of the doctrine of *Law and Economics*, the aim of labour law is separated from the improvement of workers' conditions and linked to the promotion of the liquidity of human capital, i.e. a skilled and specialised workforce capable of managing itself. The adaptation of the latter to the new economic normativity (Supiot, 2014, XI-XIII) privileges individual economic relations under private law and aims to progressively reverse the hierarchy of bargaining levels, pursuing a labour market model populated by individuals in competition, endowed with a set of fundamental rights and freed from the weight of solidarity (*Ibid.*, XIV). Rather than deregulation, it is a different kind of market regulation pushing towards a return to the labour relationship as an exchange between equals, even within the framework of subordination relationships. Internal and external flexibility, multiplication of legal statuses of self-employment, individualisation of contracts, careers, and social protection (Le Goff, 2004: 529–530): the rigidity of the status of employee—an obstacle to economic freedoms—must be mitigated in order to facilitate the conversion of each individual into an enterprise.

In this context, management discourse announces that “the old psychological contract” based on stability and job certainty “is dead” (Rousseau, 1995). But not the psychological contract in general, of course. On the contrary, the psychological contract—individual by definition—is the best tool for individualising the employment relationship and moving, as HRM puts it, from collective labour agreements to individual contracts (Costa & Gianecchini, 2005). It also becomes the instrument for eliciting full availability, flexibility, and emotional commitment—essential in the fragile and vulnerable post-Fordist organisation—in the lack of stability and economic gratification. Thus, in post-Fordist flexible work the psychological contract as a matrix of *good performance* focuses on self-knowledge and self-production, through a work relationship increasingly enriched with personal meanings, and intrinsic motivations (Lévy-Leboyer, 2007).

The psychological aspect of the contract now concerns not only the immaterial sphere of expectations and promises, but increasingly the very psychological constitution of the individual and the relationship to himself or herself (as human capital): work becomes a practice of self-production (Nicoli & Paltrinieri, 2017a, 2017b). So, in the post-Fordist work organised around the individual as owner of their human capital, the issue of the psychological contract is now the possibility of investing in oneself, one's skills, and one's professional and personal development. It is at this point that we see the emergence of a new form of relational psychological contract—given the high level of subjective involvement—which we have called the “self-contract” (*Ibid.*). Investing in oneself and one's skills, especially when the organisation of work tends to overlay know-how and self-knowledge, working time and non-working time, presumes the constitution of a relationship of knowledge and transformation with oneself. The “inflation of reflexivity” caused by the

constant “incentive to produce oneself” within the work relationship (Eraly, 1994: 135–140) probably represents the organisational side of the rise of the culture of narcissism already described by Christopher Lasch (1991). It is no coincidence that a significant part of the literature on human resource assessment, from individual potential to performance, emphasises how advantageous these evaluation practices are for the individuals being assessed, insofar as they provide them with an “authentic self-image” on which they can work to transform and improve themselves (cf. Lévy-Leboyer, 2000, 2007, 2011). This image, moreover, measures the state of investment in one’s human capital and the competitiveness of the stock of skills, influencing the sense of personal efficacy—the so-called “self-efficacy” described by Bandura (1997) and other “psychologies of optimism”.

Self-image, self-evaluation, and self-efficacy are the terms of this new psychological contract and the levers of the will to work. What binds the individual to the organisation is now the possibility of constructing and reinforcing *through* work the form of subjectivity typical of the current phase of neoliberal capitalism. The exchange taking place within this type of self (production) contract—if we can still speak of an exchange—consists of commitment, performance, and acceptance of subordination (even where there is no or very little legal subordination) in exchange for psychological tools to become a competitive and performative neoliberal subject. “Performance in exchange for subjectivation”, one might say. It is difficult, however, to describe this type of contract as an exchange and a rational choice, given that subjectivation takes place *in* and *through* work performance, already beginning with job search and practices of self-reflexivity such as the writing of the curriculum vitae and cover letters. One submits to managerial power because one wants to and not because of manipulation, miscalculation, or simple opportunism, and despite the fact that this submission leading to the neoliberal subject of performance involves more and more psychological and physical suffering (Chicchi & Simone, 2017).

Now, it seems to us, as a consequence, that the self-contract can be inscribed in the history of what Foucault called in 1980 at the Collège de France “the direction of conscience” or “government of souls” (Foucault, 2016: 224). In this scene, that of direction of individuals, which differs, according to Foucault, from both political coercion and legal obligation, there is neither a transfer of sovereignty nor a cession of will:

In direction one does not renounce one’s own will. One simply wants one’s will to be subject to the will of someone else. That is to say that the person directed is the one who says: I want the other to tell me what I must will. I refer myself to the other’s will as the principle of my own will, but I must myself will this other’s will. [...] It is therefore, in the strict sense, a subordination of the will to the other, in which the two wills remain intact, but one willing always what the other wills (*Ibid.*: 230).

And the goal of this relationship of direction is not something external to the relationship itself, an external end, but rather an internal one, that is to say, a certain relationship of self to self. One does not obey in order to obtain happiness, wealth, or health; one obeys freely what the other wants it to will, in order to be able to establish a certain relationship to oneself.

And as a result, if we call subjectivation the formation of a definite relationship of self to self, then we can say that direction is a technique that consists in binding two wills in such a way that they are always free in relation to each other, in binding them in such a way that one wills what the other wills, for the purpose of subjectivation, that is to say access to a certain relationship of self to self. The other and the other's will are freely accepted by me so that I may establish a certain relationship of myself to myself (*Ibid.*: 232).

In the post-Fordist organisation of work, we can know, recognise, and transform ourselves through practices of self-exploration and self-discourse, the proliferation of which is one of the hallmarks of neo-management (Brunel, 2008). In particular, it is possible to establish a relationship with oneself which is of the order of development, appreciation, and valorisation of one's human capital according to the logic of self-management and self-investment. But the establishment of this relationship through what we have called the self-contract can only take place in a relation of subordination of one's will to that of another—real, imagined, or socially multiplied. In our societies this “other” acting as director can be both embodied in an individual (manager, coach, psychologist), imagined by the subject himself (the recruiter, the evaluator, the organisation as such), or disseminated in the social system where the injunctions to enhance human capital are spread (from education and training systems to active labour market policies, via the management of “health capital” in social protection systems). In other words, the self-contract seems to be part of the long history of practices of the social construction of the individual will by relations of direction, subordination, and even obedience: one needs to be directed to know what one wants and become the subject of this will.

#### **4 The Platformisation of the Firm and the Spread of the Gig Economy**

In the context of the crisis of salaried work, the advent of platform capitalism and the *gig economy* generates new forms of dependence and subordination, which are based on the delegation of managerial tasks to the algorithm. First of all, what does the firm become in the platform age? The emergence of the platform as a mode of coordinating work is a symptom of both the progressive financialisation of the economy and the crisis of the classical firm as a space for organising work based on private property (Baronian, 2020). It is the economic model of the platform, in fact, that questions the foundations of the capitalist firm. Firstly, the platform algorithm automates the relationships between principals and workers, which drastically reduces transaction costs. The digital platform thus organises a fluid market where labour is immediately and continuously available on demand, allowing for the gradual outsourcing of work in the form of self- and micro-entrepreneurship. Secondly, the platform profits from a commission on the transaction that applies to both users and workers, in different forms and quantities set by the platform. This means that customers and workers are all operators in a certain market organised by the platform itself (“prosumers”). It is no longer just a question of taking work out of the company boundaries, but

of integrating the market (both supply and demand) within the platform, through the promotion of competition between self-employed workers, who are supposed to become rentiers and sellers of the services of their human capital (Corsani, 2013). Finally, the platform model allows the production factors costs to be reduced through the exploitation of the property of workers, who are most often owners of the means of production, by putting them in competition with each other in order to provide the service. In the capitalist enterprise, the ownership of the means of production was concentrated in the hands of the shareholders, a property right is defined as a socially validated right to choose the uses of an economic good and thereby to control the labour process. But in the case of the platform, it is the worker-user who formally owns the means of production. Of course, the shareholder remains the owner of the intangible capital, i.e. the rights to ownership of the algorithm, namely in the form of copyright. But this means that at the very least we are in front of a bifurcated ownership of the means of production, which on the one hand are externalised to the workers, while on the other hand are concentrated in the property rights of the intangible assets. The function of exclusive ownership of the means of production is therefore no longer sufficient to define what a platform is (Nicoli & Paltrinieri, 2019).

In short, the platform no longer exists as a separate space from the market, characterised by hierarchical relations and the formalisation of the relationship of subordination allowing the exercise of authority. The platform is no longer, as Ronald Coase thought of the classical firm, an island of conscious organisation in the sea of unconscious market interactions, but a kind of firm-market hybrid coordinating social actors who are no longer employees but self-employed people competing for market shares (Casilli, 2019). In the case of the platform, the firm is nothing more than a legal fiction supporting a set of contractual relations between individuals: a light and flexible central structure which subcontracts, externalises, and controls from a distance without organising the work. For some economists, the economic model of the platform thus seems to realise the ideal of the *agency theory* that defines the firm as a node of contracts where there is no longer any distinction between employment and commercial relationships (Jensen & Meckling, 1976). This radical outsourcing of labour in the age of digital capitalism could evoke the domestic system preceding the institution of the labour contract. But platform workers do not coincide either with the individuals of agency theory negotiating working conditions in an open market or with the workers organising themselves into associations and cooperatives in the nineteenth century. In fact, they respond individually to a flow of injunctions that are no longer presented as orders from a hierarchy but as alerts, messages, and notifications from an algorithm. Moreover, while leaving them “free” to choose their services or their schedule, the platform continues, like the classic company, to set the costs for the user and the remuneration for the worker: in this sense, platform capitalism is reminiscent of the predatory mechanisms typical of the feudal economy, much more than pre-salaried modernity (Durand, 2020; Srnicek, 2017). In the platform economy, value is directly extracted from the social by the market, through the immaterial tool of the algorithm that allows the accumulation of information to minimise losses and accumulate profits (Vercellone, 2020). In other words, the

platform model no longer corresponds to the paradigm of the classical firm: it blurs a series of distinctions that are used to structure the firm and to characterise the instrumental nature of work: not only the distinction between inside and outside the firm, but also between professional and personal life, ownership and subordination, producer and consumer. Finally, even the distinction between the principal and the agent seems to disappear in the dream of an algorithmic management that would be finally fair as it is impersonal (Huws, 2014).

This kind of management, by eliminating any form of human intermediation, creates a relationship of direct subordination between the client and the gigger (on-demand work, micro-work, or social network work). Traditional management is replaced by competition between workers: in order not to be disabled by the platform, the gigger ends up accepting all the tasks that are proposed. By offloading its workforce, the platform establishes a paradoxical relationship with the worker: it is no longer a matter of obtaining subordination in exchange for legal and economic protection, but rather of encouraging competition with peers while trying to retain loyalty by intensifying economic dependence. While no longer enjoying legal protection, gig workers are then plunged into a double subordination: economic but also organisational, as they are linked to the employer by a whole series of diverse and varied applications, chat rooms, and social networks requiring almost total availability and reinforced attention. This has led to a transformation in the way people experience work and the relationship of subordination. A new form of subordination is emerging that guarantees neither the stability of a job, nor the social responsibility of management, nor the coverage of costs generated by certain professional risks but rather the assignment of a set of productive tasks generating a relationship of subjection (hence the prefix *sub-*) based not on a symbolic hold (religious, political, etc.), but on an authority which is expressed through a flow of instructions (Casilli, 2019).

Just as nineteenth-century industrial capitalism had to shape labour power by actually subsuming it under capital, platform capitalism participates in the neoliberal enterprise of subsuming labour power under the economic, political, and subjective category of human capital. Digital platforms intensify this process of transformation of labour into self-employment, both in terms of legal status and workers' subjectivity: the phenomena of gamification or benchmarking of performances made possible by the game of appreciation typical of the applications of the digital economy are the subject of a growing number of investigations. The operations of any digital platform would be impossible without the algorithmic performance assessment practices realised by all the actors of a platform, giving rise to the rating of each of these actors. Digital platforms thus play a fundamental role in the social dissemination of evaluation and comparative self-assessment practices, making them a *normal* form of relationship with others and with oneself.

## 5 The Metamorphosis of the Self-contract: Towards a Self-worth Political Economy

Now we can ask what happens to what we call “self-contract” in this kind of acceleration of the post-Fordist organisation of work which is platform capitalism. That is to say: what about the psychological contract in the firm becoming a platform (both in the case where the firm coincides with the platform and in that where it maintains a more or less traditional structure but outsources more and more functions, in particular HRM, to digital platforms)? Indeed, beyond the proliferation of digital platforms as such, the gig economy—as already shown in the 2016 McKinsey Global Institute report on “Independent Work: Choice, Necessity and the Gig Economy”—is becoming *normal*. When we talk about the gig economy, we are in fact not just talking about “uberisation” and click-workers. Gig economy refers to the broader process of replacing traditional labour with short-term on-demand self-employment relationships, managed by algorithmic intermediation platforms connecting clients (individuals as well as companies) with gig workers. In this framework, the technical tool entailing “management effects” is obviously the algorithm, as Rosenblat and Stark have clearly shown in their 2016 study on Uber. It is well known that the algorithm fulfils the traditional managerial functions since Taylor and Fayol, from monitoring and assessing performance to rewarding and sanctioning systems, which not only ensure performance management, but also standardise, coordinate, and plan the work process (Cuppini et al., 2022; Newlands, 2021; Rosenblat & Stark, 2016). But the whole issue of the psychological contract—and therefore of the commitment of workers in the absence of a traditional managerial structure and a subordinate labour relationship that would justify such a structure and its power—remains open. This obviously raises the problem already posed by post-Fordist transformations: how to make an independent or even precarious worker committed in an employment relationship that no longer has the form of legal subordination and is no longer managed by a specific managerial function, but directly by the algorithm of the intermediation platform? In other words: how to manage workers in a gig economy? Significantly, asking this question to Google today gives about 5,730,000 results.

In the last years, management science has begun to look for answers. The first element of response refers to the gamification techniques involved in the reward mechanisms—material or symbolic—connected to the evaluations obtained within the platform (Woodcock & Johnson, 2018). In the filiation of Michael Burawoy’s work, Sarah Mason, a social scientist and Lyft driver, describes the impact on self-esteem produced by systematic feedback and ranking, as well as the performance improvement challenges and efforts strictly linked to it (Mason, 2019). In the case of Uber, the platform is known to implement “psychological inducements” such as “gaming techniques, graphics and non-cash rewards of little value that can prod drivers into working longer and harder” (Ravenelle, 2019). Beyond gamification in performance appraisal, some management science scholars propose to use artificial intelligence and machine learning to implement gamified assessments as part

of human resource recruitment and talent assessment practices (Bester & Stander, 2021).

The issue of gamification, feedback, and self-esteem thus leads us to the second element of response, namely the diffusion and multiplication of HRM within performance assessment practices involving all actors in the gig economy: companies, customers, and workers. According to Meijerink and Keegan (2019), HRM needs to be rethought in terms of “ecosystem”, which means that workers, customers, and companies are simultaneously considered as active actors in HRM. This ecosystem functions and produces economic value only if all the actors interact in a coordinated way, and if the coordination of these interactions is ensured by the algorithm. The platform is the *leader* that governs the ecosystem. But what guarantees the continuity of interactions, i.e. that customers and workers continue to use the platform in question, allowing the continuity of value production and the dimensional growth of the platform itself? What ensures this continuity is the activity of mutual evaluation, the rating of everyone, and the virtuous circle that the positive evaluation generates by attracting other clients, according to a logic of valorisation that obviously reproduces that of financial assets on the stock market. Thus, the specific task of HRM in the gig economy, as Meijerink and Keenan put it, is to ensure that all actors assess each other, thus creating an ecosystem in which any of them remains involved and continues to engage in multilateral exchanges—the interactions creating value. Customers rate workers, workers rate customers, the platform manages the ratings and rankings and *extracts* profits from the interactions (normally it first extracts less value and endures economic loss in order to increase customer–worker interactions, and then, having achieved market dominance, intensifies extraction to recover the loss).

These considerations suggest the existence of an “extractivist dimension” of contemporary management and of HRM in particular. Sandro Mezzadra and Brett Neilson have clearly shown the extractive turn of current capitalism, starting with the prevalence of logistical and financial operations over the sphere of material industrial production. But they have also highlighted the new forms of value extraction based on the exploitation of “practices of human cooperation and sociality that are external to the operations of capital”, right up to the extraction of rent from the bodies and forms of lives of individual subjects (Mezzadra & Neilson, 2017). In this sense, and unlike Fordist and post-Fordist management which was supposed to produce the conditions of possibility of the psychological contract through specific managerial functions, algorithmic management abolishes these functions by delegating them to evaluate social practices carried out by the actors themselves within the perimeter of the platform. These social practices produce a double value that can be immediately appropriated: a value that is both economic and, so to speak, *governmental*. That is to say: the generalised evaluation organised by the algorithm establishes a working ecosystem in which the actors *self-govern* and *self-control* according to the signals they receive from outside—be they notifications or feedback. But, above all, this involves a new, externalised form of psychological contract. For not only does evaluation entail gig-workers loyalty: workers quitting the platform cannot import their reputation into another ecosystem; but it also allows for the individual integration of performance standards through feedback and individual rating, appealing to

a psychosocial need for self-esteem created precisely by the psychological contract centred on the valorisation of one's human capital.

Following Michel Feher's analyses (2018), we can say that the neoliberal transformation of societies centred on the anthropological, economic, and political figure of human capital tends to make each individual a subject who is, in fact, a "manager of his own portfolio seeking investment". In other words, the neoliberal subject is an "invested-self" whose activities construct it as a project which is worthy of investment. If the possibility of generating a certain income (material as well as immaterial) depends on the *potential* defined by the capacity of human capital to attract investments, we understand the crucial importance in our societies of social credit and reputational capital. If one's value, therefore, is defined less by what one has done in the past than by what one promises to do in the future, and if the economic and social recognition of subjects depends on the assessments of their human capital, everyone is subject to the injunction to be evaluated or to evaluate himself (Feher, 2009; Paltrinieri, 2013). And that to the extent that this operation of (self-)assessment becomes the practice of subjectivation defining neoliberal subjectivity as such. The self-contract defined above as "performance in exchange for subjectivation"—or better: "subjectivation *through* performance"—can now be reformulated in terms of "(performance) appraisal in exchange for subjectivation"—or better: "subjectivation *through* evaluation". In other words, when HRM is reconfigured as a gig economy ecosystem according to a slogan that could be "all power to the mutual evaluation", the psychological self-contract is reformulated into a proposition such as "work for me and you'll have what you need to assess yourself".

More generally, the becoming platform of the firm in the gig economy, and within the framework of human capital-focused neoliberal governmentality, draws the contours of a new political economy essentially centred on self-appreciation and self-valorisation. That is what we suggest to call a "Self-Worth Political Economy" now emerging and joining the monetary economy as such. The constitution of this political economy corresponds, in fact, to the neoliberal project, developed from the Lippmann Colloquium of 1938 (Audier, 2018; Dardot & Laval, 2017; Stiegler, 2022), of extending the market competition to all areas of social life as a response to the governmental and economic crisis of classical liberalism, and in frontal opposition to Keynesian economic policies. This project of generalising economic competition in the social sphere consequently involves the political construction of "market situations" where these are not yet present, or, as Pierre Dardot and Christian Laval (2010) write, the creation of "quasi-markets" in non-market environments. But the construction of a quasi-market, as Dardot and Laval (2010) also note, necessarily implies defining a "quasi-money", just as any market economy must achieve the constitution of a universal equivalent in the form of money (Edwards, 1972).

If we follow André Orléan's (2014) critique of the (neo)classical paradigm and consequently consider money as that through which market value comes into existence, we can see in the proliferation of ecosystems of evaluation typical of platform capitalism the almost utopian (or dystopian) tension towards the creation of a homogeneous system of measuring self-worth. Thus, we can recognise in the transformations of managerial normativity the attempt to generalise assessment systems



and practices in order to achieve an individual rating as a universal quasi-monetary equivalent. Therefore, the emergence of the Self-Worth Political Economy implies the implementation of political techniques of constructing a “money-form” capable of expressing the value of the self in terms of quantity, i.e. of measuring what is called reputational capital or social credit. As we have already evoked, this kind of economy is less about the exchange of goods or services than about the logic of valorisation characterising financial markets. As Keynes already noted in Chap. 12 of his *General Theory* (1936) and as André Orléan (2014) and Michel Feher (2018) have more recently emphasised, the aim of financial markets is not so much the formation of a price—which would be the manifestation of a pre-existing value or of the equilibrium between supply and demand—but the formulation of rates, which in turn produce value. Thus, if a stock, a share, or a financial project is well rated by investors, its value increases, demand increases, determining a further increase in value, and so on, until a negative valuation reverses the trend—investors’ estimation being based less on firms current results than on the performance they may promise in the future (Feher, 2018). The Self-Worth Political Economy can be seen as an extension of the logic of financial valorisation at the level of subjectivation by individual performance assessment practices. This subjectivation of the financial value logic determines the constitution of a subject who is both evaluated and evaluator—a *subject of value*, as to say—who is formed at the crossroads of multiple practices of assessment of one’s human capital as a potential: the value of oneself being the appreciation of this potential. This makes it possible to understand the insistence of HRM recruitment practices on the need to detect the potential of individuals on the basis of their CVs (Nicoli, 2015); or the hypertrophy of the category of project (Boltanski & Chiapello, 2018) in the fields of management, education, and Welfare systems; or the growth of self-esteem disorders in the diagnostic practices of contemporary psychological sciences (Feher, 2009). Through the political and social effectiveness of the notion of human capital, therefore, neoliberal subjectivation practices seem to result in the production of a subject of value who, in addition to constituting himself as an “entrepreneur of the self” (Foucault, 2010), redefines himself as a “self-investor” or “invested-self” (Feher, 2018; Nicoli & Paltrinieri, 2017a, 2017b)—as well as a “potential subject”, always in search of social credit even more than economic.

On the edge of the collapse of legal subordination and traditional wage labour, the platform gig worker wants the servitude of work and performance, despite the suffering it engenders, because this constitutes the socially dominant manner of establishing the relationship with oneself that has become normal in neoliberal societies. Which means, still following the Foucauldian analysis about the direction of conscience, that it is also the socially dominant way of giving specific content to the empty form of the individual will through the subordination of the latter to the will of some other—given that this other, which we could now write with a capital “O” as if by a Lacanian whim, is now multiplied in an omnipresent ecosystem of evaluation. And without all this, no subjectivation is possible—the Other also seems to be telling us through his mute and yet very audible words.

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# Digital Labour, Informal Unionism and the Rise of a New Workers' Subjectivity



Federico Chicchi and Marco Marrone

## 1 Introduction

Digital work in general, and even more when it is included in the ecosystem of a platform, has characteristics that are largely no longer attributable to the traditional capital-labour dynamics as they emerged after World War II. The various institutions of industrial citizenship and the mediation of industrial relations, within this relationship, seem for the most part unable to stem the command that capital exercises on work and its social forms of organization. Power is becoming increasingly pervasive and widespread, acting on an atomized workforce for the most part unable to exercise the traditional representation rights. As highlighted by a promising literature forming around labour conflicts, these obstacles have not only forced to abandon traditional union approach but have imposed the search for new grounds of political action and for new union practices.

The scenario becomes even more complex if we consider the central role played by digital infrastructures, capable not only of defining stringent organizational perimeters, but also of exercising new forms of control and solicitation of *living labour* (Musiani, 2022). To understand the pervasiveness with which this happens—far greater than what was known in the past—it becomes necessary to look at platforms not only as economic actors. More than a new business model capable of establishing itself as a hegemon in the global market, especially following the pandemic crisis, they seem to take the form of fundamental infrastructures around which not only the economy, but society as a whole tends to reorganize itself (Borghi, 2021).

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Platforms, as Ursula Huws (2014) pointed out, have emerged thanks to their ability to capture and commodify social cooperation. At the same time, their recent penetration into the market—for reproductive labour, leisure, etc.—would not have been possible without the erosion of the boundaries between work and non-work resulting from the post-Fordist transformations of the economy (Chicchi, 2020; Marrone, 2021). On the other hand, Huws highlights how this loss of borders is by no means exclusive to digital work, but characterizes an entire generation already inclined to accept the interpenetration between 'fun', 'education', and virtual life. In this sense, platforms use digital technologies to elevate value capturing 'to the level' of the new post-wage social production relations in ways reinforcing accumulation processes.<sup>1</sup> Extreme attention is required to observe the two fundamental dimensions of neoliberal capitalist accumulation: the control and/or governance of *living labour* and the practical methods of extraction, measurement, and capture of the value this produces (Harvey, 2003). The logics of platform, on the other hand, seem to deeply redesign the very assumptions of the business process, radically changing the way in which work is employed and, therefore, exploited. As Paltrinieri and Nicoli (2019) have recently argued in this regard, the ownership relationships typical of capitalist firms come to blow when one is within an economy dominated by platforms. In particular, the ownership of the means of production is completely overturned: "where the platform-firm no longer appears as a group of assets that are already owned, but as an institution in which ownership corresponds to governance" (Ivi, p. 802). The most interesting and innovative aspect of the question consists, for our purposes, in the progressive internalization of market mechanisms and how these influence the relationship between company ownership and work. This not only relates with the fact that platform workers are demanded to use their own means of production to provide the service (i.e., cars and bikes as in the case of Uber or Deliveroo), but to the whole (economic and social) cost of labour which is completely (or almost) on workers shoulders. The return of piecework (and of other post-wage remuneration mechanisms) as the main model of remuneration represents one of the (de) regulatory and post-wage aspects that makes worker exploitation extremely convenient within platform economy. In this perspective we should keep in mind that "the economic model of the platform is not limited to expelling labour from the firm; it simultaneously integrates the labour market into the platform, through the generalization of competition between independent workers" (Ivi, p. 810).

This implies aspects—such as the extreme competition between workers or the blurred boundaries between subordination and autonomy, productive and unproductive time, training time and actual work activity time—that also makes it very difficult to shape conflicts. Difficult, but not impossible, as the global mobilization of riders and drivers evidently shows. To understand the way in which riders and drivers have

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<sup>1</sup> When we speak of a post-wage society, we are referring to the irreversible crisis of what we can call the institution-wage (Chicchi and Leonardi, 2021). In a nutshell, what comes to an abrupt halt with the crisis of the wage institution is the progressive integration of the working class into the consumer society, the upward dynamics of social mobility and the effectiveness of public welfare systems in guaranteeing social protection and security (Castel, 2003).

distinguished from the rest of platform workers and managed to challenge the organizational capacity of the algorithm, it is therefore necessary to carefully analyse its emerging phenomenologies in a new perspective. In other words, it is a matter of highlighting not only the ability of workers to counter-use digital technologies in ways that escape algorithmic control, but also that of building aggregation in the "blind" spaces of the platforms. Of particular interest, in this regard, is how platform workers tend to face the contradiction between an unprecedented level of surveillance and of atomization by building *communities of struggle* (Però, 2020) that challenge both material and subjective dimension of precarity. Initially formed to provide self-support in a context with no social protection whatsoever, they often began spaces where conflicting initiatives and practices have been developed by workers. In other words, platform workers' communities also became "an inclusive and participatory space where workers experiencing multiple forms of oppression can receive and provide support to each other, co-develop a contentious collective identity, plan and undertake industrial action, while acquiring confidence, self-esteem, a sense of empowerment and embeddedness alongside gaining material rewards (such as better pay and conditions)" (Però & Downey, 2022, p. 3). In this perspective, the struggles of platform workers, rather than simply demanding the access to the prerogatives of the wage society, place at the centre a refusal of individualization and the extreme forms of exploitation characterizing platform regimes. Therefore, investigating the "rupture" of algorithmic subjectivities it is not only a question of looking at the organizing practices adopted to challenge algorithmic management, but also of the tension that emerges from the clash between the narratives they propagate and the cooperative subjectivities emerging inside and through the space infrastructured by the platforms.

The research on platform labour that the Plus project has carried out in some of the most important European cities has allowed to investigate both the pervasiveness of the digital regime of labour and how this has been challenged by workers. To capture this ambivalence, we will try to deepen some of its fundamental characteristics with reference to the way in which digitalization impacts—with different modalities and outcomes—on the subjectivity of work. However, we are convinced that analysing workers' mobilization is not simply a question of legal recognition, today shamelessly hindered if not completely extraneous to the platform economy. In this tension we also want to uncover the formation of a space of subjectivity to work which by "vocation" is constituted on the margins, if not totally outside, the coordinates of the traditional relationship between capital and labour (Mezzadra, 2021).

## 2 What is a Platform? The Reasons of a Contested Definition

Platforms have become a ubiquitous presence in both economy and society, but its meaning is still unclear. As argued by Gillespie (2010, p. 3), the popularity of the term platform relates to the fact that is “specific enough to mean something, and vague enough to work across multiple venues for multiple audiences”. In this sense platforms ambiguity contributed not only to escape normative limitations, such as those related to traditional labour standards, but also to gain legitimacy and attract consent on their rapid rise. Retracing the genealogy of platforms then represents a necessary step to develop a critical understanding of its functioning and of the role they achieved.

According to Casilli, the origins of the term can be traced in the theological and political sphere. During XVII in UK the term platforms has been firstly employed to try to unify the fragmented Puritan movement in “a mix of civil and religious beliefs” (Casilli, 2020, p. 57). Almost contemporary, the Diggers movement developed their ‘platform’ as a radical program, today perhaps ironically based on the abolition of private property. In the same field, Gillespie (2010, p. 4) highlights the popularity the term had in the post-ideological transformation of the American political parties. In this sense, the platform follows the traditional political “agenda” that has characterized large part of the twentieth century, usually associated with obscure élite decisions, in favour of a more open and grassroots democratic process. In this sense: “the term retains a populist ethos: a representative speaking plainly and forcefully to his constituent” (Gillespie, 2010, p. 5). In all these cases however, platform meant “a raised, level surface designed to facilitate some activity that will subsequently take place” (ivi, p. 5), characterizing the concept with progressive features of neutrality, openness, inclusiveness, and flexibility.

A first spillover happened in the field of computing and media studies. In this context, the platform for excellence was Microsoft Windows that since the 90s began to spread both within and outside the economic sphere. As Plantin and his colleagues (2018) highlight, in this sense platform meant an easily accessible and flexible infrastructure where users could interact and modify according to their needs. About ten years later, computing developments emancipated the term platform from the hegemony of Microsoft Windows and became popular to indicate the functioning of peer-to-peer interfaces. The most popular of these is surely Napster, protagonist in the early 00s of the famous trial with the American band “Metallica” which, as observed by Tomassetti (2018), has been the case to provide the first legal argument around the definition of a platform. While the accusation was that of favouring piracy, Napster argument was that of being a—neutral—digital infrastructure with no responsibility for the contents exchanged. In this perspective Casilli (2020, p. 56) points out how the closest ancestor of the platform was the “informatic architecture” which became obsolete simply because “architects were not there anymore”.



However, it is when the term platform entered the economic scenario that leapt forward becoming a ubiquitous presence in our society. Among the first use of the term, we have the Silicon Valley *smart* manager where platform indicated a way of "creating value by bringing together two or more types of actors and facilitating interactions between them" (Evans & Schmalensee, 2016, p. 22). What lies at the heart of this perspective are the possibilities provided by digital technologies, in particular algorithms, to process a big amount of data rapidly establishing as many linkages as possible and improving the quality of transactions. Digital platforms soon became then the most revolutionary product of the so-called "second age of the machines" (Brynjolfsson, McAfee, 2018) or elsewhere "the fourth industrial revolution". Management theories have also often related them to "disruptive innovation" processes where a "company with fewer resources is able to successfully challenge established incumbent businesses" (Christensen et al., 2013, p. 45). In other words, technological developments have provided the opportunity to compete in the market to new emerging actors, while deeply transforming the dynamics of the market itself.

This radical view of technological development has *met in* the so-called *Californian Ideology* a mix between "the free spirits of the hippies and the entrepreneurial zeal of the yuppies" holding an "impeccable libertarian political perspective" (Barbrook & Cameron, 1996, p. 44). To have a sense of this view it is enough to give a look to the title of popular texts like "Collaborative Consumption. That is, what's mine is also yours" (Botsman & Rogers, 2010); "The Wealth of Networks. How Social production transforms the market and increases freedoms" (Benkler, 2006); "Free. The Future of a Radical Price" (Anderson, 2009). The view expressed in these books is most known as *sharing economy* and clearly unfolds a post-capitalist imaginary where digital technologies would make obsolete some of the most typical aspects of capitalism, such as money, private property, social hierarchies, labour command, social inequalities and the like.

However, the initial enthusiasm on *sharing economy* rapidly vanished. Even before the struggle of riders and drivers showed their exploitative conditions, for Sundararajan (2016, p. 26): "the intertwining of financial investment and the emergence of platforms with large private investments has convinced many that the ideals associated with the sharing economy that preceded 2010 can no longer be sustained". In his view, platforms are also more complex than just new forms of corporation, representing a "hybrid between the horizontal nature of the free market, impersonal and freely accessible, and the traditional business model based on hierarchy of production and control of labour" (ivi, p. 77). In this perspective, we may see how digital platforms continue some of the general tendency already consolidated in the global economic scenario. First, that of fragmenting the labour process in ways that facilitates outsourcing not only part of the production, but even single microtasks (Casilli, 2020). Secondly, that of escaping standard employments, at the same time benefiting from the post-wage society and pushing further the crises of its institutions. Thirdly—as we further see—the ability to develop new forms of labour control based on indirect forms of control and manipulation of subjectivity that allow them to extract value from social cooperation. Looking at these aspects, it appears evident how digital platforms did not come from nowhere but are prolonging logics of

exploitation already structured in the economic scenario. What is new is the ability of capitalism to expand such logics beyond the context where originated. This is especially the case of the platforms we selected in the study—Deliveroo, Helping, Airbnb and Uber—providing a *digitalized* version of services historically associated to the informal sphere of the economy. It is not a coincidence if these platforms have risen in the aftermath of 2008 financial crises, which is when financial capitals started to pay attention to sector once positioned at the margins. However, very little benefits go to workers that on one hand experience industrial labour control once reserved to the manufacturing, and on the other are maintained same condition of poverty and insecurity characterizing informal employments (Marrone, 2019).

Highlighting the deep roots of platform capitalism it does not mean we should underestimate its discontinuities. Firstly, this refers to the ability to extract, elaborate and employ an unprecedented level of socially produced data, which is something that has often associated platform capitalism as part of the “extractive drift” of capitalism (Mezzadra & Neilson, 2019). Again, this is anything new if we consider how Italian *operaismo* has already investigated the ability of workers to produce information other than just product goods (Alquati, 1975), but what is new here is the scale in which this happens. This is for example the case of platform such as Facebook where the content spontaneously uploaded by user makes it possible to sell profiled advertising spaces (Srnicsek, 2016). This however does not happen only within social network, but it is a characteristic of all platforms of digital labour (Casilli, 2019). In other words, riders, drivers and all the other platform workers are not only exploited for their service provision, but also for the data they produce all the time they interact with their devices.

Nonetheless, as argued by Zuboff (2019) platforms do not just socially extract data, but they also use them to encourage behaviours which comply with their productive needs. An aspect that has also been stressed by STS’s interest towards digital infrastructures (Musiani, 2022). Especially during the Covid-19 pandemic most dramatic days we have in fact experienced the ability of platforms to penetrate “the heart of the society”, reconfiguring a wide range of activities, from social life to education or entertaining, that very much exceed the traditional economic sphere. Each human activity is not simply “materially” translated into digital means but goes through deep qualitative transformations that address social life according to platform needs. The influence that platforms have in our society makes them something more than just a new business model. Employing Mann’s (1984, p. 189) definition of “infrastructural power” we may say that platforms have reached the same ability of the State “to effectively penetrate civil society and logistically implement policy decisions throughout the territory” attributes to “the infrastructural power”. As Plantin et al. (2018) points out, the ubiquity and the level of interdependence they reached should move us to pay interest to the process of “infrastructuralization” of digital platforms. In other words, we may say that platforms are emerging as a crucial infrastructure around which not only the economy, but the whole global society is reorganizing.

The reason why platforms are still surrounded by ambiguity then is not the result of a lack of research but reflects their ability to cross borders between economy

and society, between production and reproduction, between the social and the political. Defining platforms means limiting their power, and this makes the definition task a structural component of the fight against platform capitalism (Woodcock, 2021). However, investigating platforms does not simply mean understanding the functioning of their technical structure, but undercovers the politics they hold; it means finding the social order they tend to create and, eventually, how this can be challenged. This necessarily leads to the following section of the chapter where the notion of “platform subjectivities” will be investigated.

### 3 The Platform Subjectivity

Platform labour process follows innovative command lines. This opens to new scenarios both from the point of view of the *logic of exploitation* (Chicchi et al., 2016) and regarding the possible actions of contrast and resistance. While on one hand algorithms impose conditions of operation according to rigid and predetermined modalities of task execution (for example, how algorithms instantly calculate the route that riders have to follow or the obsessively specified way in which pickers operate in Amazon warehouses), on the other hand, they leave to workers' margins of autonomy in defining times and modalities of their working activities. This apparent paradox indicates one of the key characteristics of platform work. Digital technologies have the peculiar ability of realizing a close relationship between the proactive inclinations of workers' subjectivity and the “objective” task execution. This relationship also determines the formation of an unprecedented subjective condition which results on the one hand from the pressure of algorithmic subordination to the rhythms and times of labour process, and on the other hand from the injunction to assume a formal self-employed occupation.<sup>2</sup>

The question of how *time* is governed and therefore brought within the practices of valorization of digital capitalism is pivotal to understand these processes. Firstly, it has to do with the ability digital connections and information flows have in crossing the traditional boundaries of the social life sphere. Lifetime and working time here, for example, are irremediably confused, often becoming inextricable. It is no coincidence that the difficulty in governing the relationship between the different social temporalities emerges from PLUS fieldwork as one of the most obvious difficulties of platform workers' biographies. This confusion also makes it difficult—if not impossible—to protect one's *intimacy* from the pervasive and constant extraction of sensitive data that platforms realize to encourage the improvement of their algorithmic devices (Casilli, 2020). In addition, the operating time of the service activity is measured in all its analytical aspects and subjected to a spasmodic performance imperative. This measurement, however, no longer only concerns the mere execution

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<sup>2</sup> It is within the subjective tension that occurs in this dependence-independence double-bind relationship that the phenomenon of the so-called free work insinuates itself (Cfr. Armano et al., 2020).

of the task but also insists on the broader subjective context (such as emotional, relational and symbolic qualities) within which the same productive task is being determined (Casilli et al., 2023). In this sense, the concept of *quantified self-expresses* in a way—at the same time stimulating and disturbing—the new subjective constitution deriving from these transformations.

This schizophrenic and paradoxical way of *questioning* (in the Althusserian sense) the subjectivity at work is, however, far from understandable if we do not carefully observe how this unprecedented mixture between command and self-solicitation to work is articulated within platforms. Therefore, it is fundamental to understand how they coexist in the escape from waged employment with a strong individualizing and libertarian push towards “do it oneself”, where “the involvement of the whole person in the performance of work with forms of exploitation more intense than the past, as they are based on self-accountability of the individual (self-exploitation)” (Armano et al., 2020, p. 110). In other words, we can notice here a key role of the genealogy of the platform on workers’ subjectivity. This latter originates on the one hand in the rhetoric of the *sharing economy*, now completely subdued, and, on the other, in the consequent and growing opening of a post-wage scenario where the so-called freelancing is its architrave: “In this setting, work is done mainly autonomously and on a self-employed basis. In the socialisation carried out by lean platforms, the subjectivity and the risk have become central and the tendentious model is that of freelanced work on a global scale. The production of Subjectivity 4.0 is marked by these processes” (Ivi, p. 107).

The crucial point in the formation of this work subjectivity seems to be, therefore, the intense confusion of the distance between a blind operative obedience and a compelling imperative to subjective autonomy (making appear the subject as a kind of *human capital*). This confusion hides a subjective contradiction that is not easy to manage without risking the detriment of the formation and the spread of new psychopathological conditions (Chicchi & Simone, 2017, 2022). It has recently been highlighted in this regard: “one of the fundamental conditions for the possibility of new forms of enslavement is in fact the «black box» effect, the result of the non-transparent, if not decidedly opaque, character of the new technological requirements, concerning both the design and the use of digital tools” (Menissier, 2022, p. 91, *our translation*). The intrinsic opacity of the digital device, according to Menissier, would lead to the concrete risk of defining, within contemporary society, a new *voluntary servitude* where “the algorithmic society is part of the paradigm of innovation characterised by new forms of capitalist exploitation and by the continuous change that makes traditional social forms (and in particular those of dependent work) obsolete” (Ivi, p. 93). The new subjective posture of the platform worker thus fluctuates between a condition of rigid obedience to the procedural imperatives of the algorithm and the search for an autonomous and individualized career, exposing many to a serious and chronic risk of precariousness: “If extraction of value takes the form of a digital despotism that seems to reproduce the formal subsumption of labour in the first stages of capitalism, the exploitative relationship seems now to be presented in the paradoxical form of a subordination in autonomy” (Nicoli & Paltrinieri, 2019, p. 811).

Certainly, the quality of this condition also depends on the type of platform in which we operate. In Helping, Deliveroo, Uber and Arbnb, for example, the relationship between obedience, precariousness and entrepreneurship of himself is articulated in ways that are often significantly different (let's think how different riding a bike can be in respect of renting a room or apartment on Airbnb), but in all cases the process seems the same: the forming of a new norm that invest the subjectivities in—only apparently—paradoxical ways.

Another important aspect of the new “digital subjectivity” is its key role in exiting most of the traditional social and economic relationship between firm and market, favouring a hybridization tendency: “In twentieth century companies, employee remuneration was shielded from price and demand fluctuations. Employment contracts protected them from the market—to such an extent that some authors have identified ‘anti-market’ characters in these work organizations. On the contrary, digital platforms, as market-to-company hybrids, do not mitigate market shocks but adapt to fluctuations by adjusting their prices according to changes in supply and demand” (Casilli, 2020, p. 204, *our translation*). The unmediated exposure of platform workers to the market (and consequently to the financial logics characterizing contemporary capitalism) also conditions its subjective and social constitution. Once again, the temporal coordinates of platform subjectivity shape in a new form. The financial logics predominating in platform capitalism, the way in which they determine how value is appropriated and measured, give very different characteristics from those usually attributed to industrial and/or manufacturing capitalism. This process can be described, in a nutshell, through the concept of *assetization* (Adkins et al., 2020; Birch, 2017). This changes the temporality through which the extraction of value is determined. We could say that it changes the quality of time involved in the measurement of value. This is no longer exclusively defined in terms of the processes of commodification of labour lying at the base of the logic of exploitation described by Marx in the *Capital*. The temporal space expands by virtue of the new social centrality of finance that, in the fluctuations the moment of credit and the moment of debt, creates a new and open space of valorization that strongly insists on the “potential” conditions of workers, not only on their current ones. A space that is characterized by a temporality that makes the opening towards future expectations its new hinge of operation, while at the same time, on the subjective level, makes the uncertainty one of its distinguished features. This is the space organized by the algorithmic governmentality (Rouvroy & Berns, 2013), on both a social and subjective level, according to its new normative and predictive schemes. In this sense, the way in which Jarrett uses Feher's work (2007, 2017) is useful to understand how:

“in the contemporary economy, the figure of the free labourer has ceded to that of human capitalist; the worker who invests in and leverages their capacity within the economy. This, he argues, has become the dominant subjective form as workers seek to develop or appreciate the value of the self as a form of currency in the marketplace. The kind of subjectivity this assumes does not presuppose the distinction between the inside of the marketplace and the outside—between the spheres of production and reproduction; work and leisure—that is integral to the idea of the free labourer” (Jarrett, 2022, p. 96).

Therefore, what is crucial in platform economy, with respect to the formation of subjectivity, is not only the theme of self-exploitation (or so-called *voluntary servitude*) but also what implies the *assetization* of the workforce: a process where employers can assess the “subjective potentials” of workers and through which workers themselves can be involved in the continuous development of their potentials. It is therefore from here, from the formation of this new space of valorization, that we consider fundamental to try to question the way in which the workers organize their *struggles for recognition*.

#### 4 Informal Unionism and the Struggles for Recognition

One of the key factors that has made platform capitalism popular is the struggles of riders, drivers or Amazon pickers, among the others, that have accompanied its rise in the economic scenario. This opens up an evident contradiction with a labour regime characterized by an unprecedented level of labour control. Platformization not only confounds the feature of workers in ways that exempt the possibility to access to social protection, but also to traditional means of labour struggle. However, instead of eradicating labour struggle, the necessity for workers to informally organize has represented an opportunity to experiment tactics and approaches that differs from those usually available among traditional unions. Far from representing a *smart* “unionism 2.0”, the informal unionism experimented by riders and drivers adopted a register that historically belonged to the struggle of those subjectivities “living on the border of wage society” (Castel, 2003, p. 341). Differently from *struggles for redistribution*, that necessary imply the possibility for workers to get access to a form of industrial citizenship, *struggles for recognition* refer then to the possibility for individuals to be recognized at full title as members “participating in the process of realization of the society” (Honneth & Fraser, 2003, p. 31). Despite riders and drivers being just a minority of platform workers, our conviction is that they are a fragment reflecting the ways in which labour conflicts are transforming—and not disappearing as it is often misspoken—in the post-wage society. In other words, more than a model to follow, “they participate actively in a dynamic regime of ongoing struggles for recognition” (ivi, p. 57), following the action of unpredicted subjectivities and the effectiveness of unconventional strategies.

Understanding how riders and drivers have been successful in challenging platform power means trying to make visible the connection they have with other workers’ struggle, removing them from the heroic aura in which they are often enveloped. The concept of recognition has already largely been debated in many social and political theories. However, the same can’t be said for labour studies, where this concept has been limited to marginal subjectivities—such as migrant, women, informal workers, etc.—when not sceptically seen as an influence of identity politics or a step back from “real” class struggle. Things seems to be changing as the demand of recognition has been associated to powerful social conflicts, such as feminist or anti-racist movements, or to labour struggle lying at the core of global

capitalism. According to Honneth and Fraser (2003), struggles for recognition represent nowadays a structural component of neoliberal globalization. However, they are anything new. According to Pizzorno (1980), they were a key component of the peculiar conflictuality workers movement showed in Turin FIAT plants in the late 60s. Their demands—notably the vast majority coming from southern Italian migrants—could not be simply explained by a demand of redistribution. It was a more general claim of dignity for their condition that could not be formally contained by wage increases or the like. By demanding recognition, the target of their struggle was a more general transformation of the Italian society ensuring fair work and a decent life to the emerging working class that was forming through internal migrations. Here we are not far from the “Not for us but for everyone” slogan that has characterized the struggle of Italian riders and that clearly identify a stake moving beyond the simple demand of formal rights (Borghì et al., 2021; Borghì & Murgia, 2022).

However, the concept of recognition is useful not only to understand the demand of platform workers, but also to explain the path followed to escape digital control. Paraphrasing Honneth’s articulation of recognition this regards the struggle of delivery workers in at least two directions. Firstly, a “moral” and intersubjective dimension where recognition is more intended in the moral possibility for “subjects to recognize each other in their peculiar needy nature” (Honneth, 2010, p. 33, *our translation*). Secondly, an “ethical” and institutional one, where subjects enter the public sphere “allowing subjects to value each other through the qualities that contribute to the reproduction of the social order” (Honneth, 2010, p. 33, *our translation*). The “dialectic” between these two dimensions of recognition is particularly evident in the case of riders and drivers struggle, where the intersubjective dimension of recognition has created the necessary premises to influence institutional action and this has reinforced their struggling subjectivity.

Thus, the despotic power of algorithm did not impede the formation of *community of struggle* (Però, 2022) that often emerged in an informal dimension, which is outside traditional unionism. It is not a case then that many have highlighted the key role played by solidarity practices to overcome the obstacles to union action (Maccarone & Tassinari, 2022). Interestingly, these self-organized communities of workers proliferated in the space left by platform tendency to escape traditional employer obligations. This is the case of bike repairing support (Cini & Goldmann, 2021), of legal mutual support (Marrone & Finotto, 2019) or in sharing knowledge of misbehaviour practices, i.e., using of bot (Peterlongo, 2022). The unpaid time waiting for delivery or task assignment (Marà & Pulignano, 2022), the branding clothes they have to wear (Chesta, Zamponi & Caciagli, 2019), the digital tools they employ (Leonardi et al., 2019), from conditions of exploitation became means and opportunities to build up an intersubjective “class” dimension. During PLUS research we found similar dynamics happening not only among Uber drivers or Helping cleaners, but also on Airbnb hosts where, although the peculiarities of the platform, digital platforms like WhatsApp or Facebook are widely employed to provide mutual support or to overcome algorithm information asymmetries (Rosenblat & Stark, 2016). In other words, the digital subjectivity is not only the ground for expanding subjugation, but it is a contested terrain for subjectification processes.

The forming of self-help groups is however not enough to talk of “communities of struggle”. As Però (2020, p. 904) defines them they are “geared towards mutual support but also, crucially, towards campaigning, mobilisation and informal bargaining” (Però, 2020, p. 904). This is complicated in the platform context, usually populated by a variegated workforce, including young, students, migrants, women and others, with very different social needs. This has been a key obstacle for traditional union dynamics, requiring informal unionism to experiment new organizing approach to mobilize them. This is for example the case of the use of social movements tactics, such as rally or boycotting campaign, that have facilitated intersubjective recognition and the mobilization of workers. Traditional tools such as workers are undermined by the functioning of the platform, but this does not mean they are ineffective (Pirone, 2018, 2022) Under the lens of recognition, instead of economically harming employers, they are essential in generalizing processes of counter-subjectivity and in allowing workers to “look at themselves”, as Goodwyn refers to as a key process in the formation of social movements.

The result is a mobilization towards which not only riders or the other platform workers identified, but a much broader groups of precarious workers. This was possible also thanks to previous mass social movements against precarity—such as those that have animated Euro May Day—that have inspired the possibility for riders to emerge as a symbol of a “dangerous class” (Standing, 2011). This connection is what allowed the struggle of riders and drivers, especially in Europe, to motivate local, national and continental institution to regulate the sector. Put differently, it is when the intersubjective dimension of workers meets the critical sense sedimented by social movements that the struggle for recognition become able to impact “the standards of social esteem that benefits certain occupations” (Honneth, 2008, p. 51 our translation).

However, the concept of recognition also presents its limitations. Firstly, as argued by Casilli (2020, p. 244): “These mobilizations have a common goal that is basically quite circumscribed: not to challenge the power of platforms, but on the contrary to have digital workers’ bond of subordination to them recognized in order to formalise a contractual relationship that they insist on denying, thereby improving working conditions and remuneration”. Moreover, platform workers struggle has been limited to a relatively small number. Most workers, as stated by Huws (2020), do not belong to this group, but operate in the most hidden and fragmented dimension of remote workers and, in many cases, have platform activities as a secondary source of income. This makes the idea of a third labour gender—distincted by both self-employment and subordination—simply not applicable, indeed increasing the risk for other groups of workers to be misclassified as “platform workers”. Nonetheless, neither the neoliberal think tankers nor the union representative offers a satisfactory solution to the problem of digital work remuneration. While the former, by promoting the sale of data per unit, contributes to undervaluing the contribution of users, the latter ignores the non-ostensive dimension of work on platforms which makes it impossible to quantify their exact contribution.

The paradoxical impossibility to quantify workers’ productivity in the digital context is even more evident in the case of data extraction. As Mezzadra (2021)



argues, this is key in undermining the efficacy of the social protection that originated in the Fordist. In his view, digitalization contributed to further levels of “multiplication of labour” outside its traditional borders. The result is a structural component of platform work to continuously form “grey zones” where formal and informal dimensions are inextricably overlapped. What he stresses is not only the difficulty to provide a formal response to a regime of production that expands exploitation within everyday life, but also to include the *potential workers* whose role is essential in platform labour process to make workers easily replaceable and blackmailable. Thus, to challenge the roots of platform powers is not enough to give social protections to those formally working, but this needs to apply to all those who may potentially be captured. It is for this reason that the proposal of basic income or minimum wage (still missing in many European countries) receives new lifeblood in a context of platformization.

## 5 Conclusions: Subjectivity and Conflict Within Digital Platforms

The struggles for recognition are thus the workers' way of attempting to break the paradoxical injunction that the platforms incessantly practise against them; an injunction overlapping demands for subordination and instances of discretion and autonomy during the exercise of their various activities. This condition, which prefigures a situation of ‘subordinated agency’ (Wood & Lehdonvirta, 2021) or, put differently, of ‘performance wage’ (Marrone, 2021), is the essential starting point to investigate the way in which digitalization is impacting post-wage workers subjectivity. On one hand, this has crucially impacted the subjection of workers, squeezed between a pervasive digital control and a constant push towards entrepreneurialism and *assetization*. On the other, this has also been marked by counter-subjection processes that have been able to overturn both digital tools and the exclusion from traditional means of workers' representation characterizing the post-wage scenario. Beyond the growing and consolidated, but still localized, experience of platform workers' conflict, the problem of how to build their coalition in a context in which labour subjectivities (and their needs) are very heterogeneous is still there. Looking across the main distinction between local (work is mostly carried out in an urban context in an on-demand manner) and remote (or micro-tasking, work is carried out via the Internet) platform labour, the dimensions fragmenting the condition of the platform worker appear the most varied. The activity performed, the variety of algorithms and platforms model, the different employment relationship, age, gender, the quality of the worker's soft-skills, ethnicity and their various life trajectories, results in an extremely variegated workforce. For these reasons (and many others) it is certainly not possible to trace a precise and unitary subjective profile of the platform worker.

At the same time, we think it is possible to observe the shapes of a specific labour disposition by experimenting new and effective conflictual practices (Into the black

box, 2022; Marrone, 2021; Woodcock, 2021). Such a disposition is captured by what we have defined above as struggles for recognition. With this we mean not only the demands of social rights and protections (via recognition of subordination) distinguishing its formal dimension, but also the cooperative and/or *commoning* practices trying to use the network effect to realize more radical forms of sharing and co-management (Huws, 2020; Scholz, 2016). In the background, however, it is interesting to observe the formation of a subjectivity that, although harassed by hard and extremely precarious working conditions, is still able to express its aptitude in a post-wage scenario (Chicchi et al., 2022). In short, we believe, as Sandro Mezzadra (2021) recently pointed out, platform labour inaugurates a new conflictual season, assuming a configuration that, in tension with the transformations that the platforming of the economy introduces in contemporary capitalist society, is substantially organized beyond the traditional industrial claims and representative spaces. This is perhaps what is at stake in the emerging conflict of working on digital platforms and that in the coming years will deserve to be observed with great interest.

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# Platform Capitalism: Infrastructuring Migration, Mobility, and Racism



Stefania Animento

## 1 Introduction

There is growing interest in research regarding the role of migration in platform capitalism (Lata et al., 2023). Empirical investigations from across the world show that migrant labour constitutes a crucial part of the labour force working in and around platforms (Gebrial, 2022; McDonald et al., 2019; Van Doorn et al., 2020; Collins, 2020; Zhou, 2022). However, there is still little analytical engagement with questions about the role of migration in the extraction of value from social cooperation happening through and in platforms (Altenried, 2021; Gebrial, 2022; Schaupp, 2021; Dubal, 2020).

In this chapter, I interrogate the empirical data of the qualitative research conducted at the project Platform Labour in Urban Spaces (PLUS), to develop a nuanced understanding of how migration, mobilities, racism, and platforms relate to one another. What is the relationship between platforms and migration regimes? What type of labour relations do platforms shape, and how are they related to processes of racialization of the labour force? Under which forms does racism emerge in the platform economy, and what can we learn about racism, by studying platform labour? To tackle these questions, I adopt three theoretical viewpoints.

Firstly, I critically engage with the infrastructural turn (Wiig et al., 2022) and the mobility turn (Faist, 2013) and ask about the processes of “infrastructuring” (Star, 1999; Lin et al., 2014) of mobilities and migration which platforms trigger and preserve. While platforms have been considered as infrastructures of migration (Altenried, 2021; Van Doorn, 2020), I ask about the mobilities which they generate on more scales than the one concerning international migration.

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Secondly, I embrace the Labour Process Theory (Gandini, 2018; Smith, 2015) to delve into the complex system of labour relations designed by platforms. I identify processes of multiplication of forms of oppression and sketch out how these relate to racism. Here, I am less interested in the politically contested question of whether platform workers should be understood as employees or as freelancers, but rather focus on the promiscuity of labour in the platform economy.

Thirdly, I investigate the impact of platforms on racism. Although it is now widely recognized that digital technologies are far from representing a “colour-blind utopia” (Hamilton, 2020), the interaction of the platformization of labour with the proliferation of racism in contemporary societies is still under-researched. While there is growing literature on the circulation of racism across social media platforms, this is less the case for other types of platforms. There is yet little engagement with a broader theorization of racism in platform capitalism (Gebrial, 2022). In this chapter, I develop the concept of infrastructural racism, to emphasize the capacity of platforms to make racism and anti-racism circulate across society in specific ways and circuits.

For reasons of length, this chapter will not focus on forms of resistance and practices of autonomy developed by workers, strategies operated by workers, although they are a fundamental component of the way platform capitalism is to be understood in relation to migration, mobility, and racism. Here, I focus on “what platforms do” (Vallas & Schor, 2020), and on the systems of domination and oppression which they tap into and/or generate.

The chapter is organized as follows: I start the analysis with a methodological note aimed at tackling the question of whether the majority of platform workers can be considered as migrant. Thereafter, I proceed to delineate the main arguments about the infrastructuring of migration and mobility, about the investigation on processes of racialization connected to platforms, and to the conceptualization of infrastructural racism. In the conclusions, I wrap up the results of the analysis and sketch out some possible trends for future research.

## **2 Are All Platform Workers Migrant Workers? Methodological Notes from the PLUS Project**

The question if platform workers are mostly migrants is a highly challenging one. While international literature on platform work points to a large component of migrants among the workforce of platforms across the globe (McDonald et al., 2019; Anwar & Graham, 2020; Van Doorn et al., 2020; Altenried, 2021; Gebrial, 2022; Zhou, 2022), researchers face several challenges when collecting data on the socio-demographics of platform workers. The fragmentation of labour relations across and within platforms, the high turnover of the workforce, and the complexity and diversity in national statistical categorizations of migrants jeopardize the reliability of data on platform workers.

Moreover, since their onset, platform economies across the world have developed at a very fast pace, with their workforce changing as well very rapidly both in numbers and in their socio-demographic composition. The Covid pandemic sparked a phase of dramatic expansion of some sectors such as the last-mile delivery and of crisis of other sectors, such as transportation and domestic services, while we are now witnessing a phase of financial trouble and massive layoffs. At the PLUS project, interviews were mostly conducted in 2020, thus shortly before and after the outbreak of the Covid pandemic in Europe. Our research provides thus an important insight into the effects of the pandemic shock on platform economies in European markets. In the current phase of squeezing of the labour force of platforms, however, it is legitimate to expect that also the composition of the labour force might have further changed.

Nevertheless, in our data, migrant workers compose a large part of our interviewees. We carried out 230 interviews with platform workers of Deliveroo, Uber, Airbnb, and Helpling. Ca. 1/3 of the interviewees were classified as owning a nationality other than the national one, while in 7.5% of the interviews no nationality could be assigned. Noteworthy, the ratio of non-migrant platform workers was not surprisingly disproportionately high among Airbnb. Airbnb represented a liminal platform in our sample, since Airbnb hosts do not participate formally in a labour relation with the platform. In the case of Helpling, Deliveroo, and Deliveroo, in some cities migrants made up half of the interviewed workers. Moreover, migrant workers might be underrepresented in our sample for various reasons. Generally speaking, reaching out to migrant workers was often challenging. The local teams faced language barriers when trying to reach out to the migrant communities, and of course reported that those workers with the most precarious status, such as illegalized workers and asylum seekers, might avoid participating in interviews to protect themselves. However, all evidence pointed to a large presence of these groups in the local platform economies. While it is not possible to determine statistically whether the majority of platform workers are migrants, we can assert that they do constitute a central part of the labour force of platforms. Our data suggest that migration and more broadly speaking mobility are quintessential for the extraction of value enforced by platforms, as I will show in the next paragraphs.

### **3 Platforms as Infrastructures of Mobility**

This chapter engages with the concept of infrastructure to make sense of the ubiquity of mobility that we detected in the investigation of platform labour. Infrastructures are “socio-technical platforms for mobility” (Larkin, 2013 in Lin et al., 2017); they are “matter that enable the movement of other matter” (Larkin, 2013: 329). Their analysis is therefore crucial for the understanding of the circulation and mobility of people, capital, things, and ideas. The paths and networks along which mobilities take place are not pre-given, they are constantly re-figured by transformations in societal modes of production and reproduction, technological fixes, and ideological

constructs. Spanning from Critical Urban Studies to Studies on Socio-Technical Systems and Critical Migration Research, research on infrastructures has helped to disentangle these transformations. The infrastructural, logistical, and mobility turns have contributed to open the black boxes in which phenomena such as migration, logistics, extractivism, and other forms of extraction of labour value are placed, in the context of variegated neoliberalism marked by pervasive digitalization.

Platforms rely on distributed systems. They exist as data which circulate along cables, through electronic devices, and across data centres, but also exist as headquarters and offices, in which managers ideate business strategies and tech workers program the algorithms which make the data flow. And of course, platforms are also present as the beep of a smartphone which makes human bodies move, ride, and drive; they organize social interactions between workers and clients, in other words they regulate human labour. Platforms are difficult to territorialize, there is no delimited physical space in which a platform can be contained. As research has suggested, platforms can be understood as digital infrastructures (Plantin & Punathambekar, 2019; Ferrari & Graham, 2021). Due to their infrastructural power, they are able to stimulate, organize, mediate, mould, channel, and stop mobilities on various scales (Altenried et al., 2020; Stehlin et al., 2020). They are deeply interested in the extraction of value from mobile work (Gibbins et al. 2022); the mobility of things, information, money, and people is at the core of the labour process of platform labour. I argue therefore that platforms are involved in operations of “infrastructuring” of mobility across multiple scales. The concept of “infrastructuring” (Star, 1999; Lin et al., 2014; Simone, 2022) highlights the open, contradiction-ridden, generative, and processual nature of the making of infrastructure.

In this chapter, I focus on *the processes of “infrastructuring” which platforms operate on the mobility of human labour across national borders (i.e., migration) and across platforms borders.*

### **3.1 Migration and Mobility**

Firstly, I want to direct the attention at the international scale of mobility, which is of course crucial if we want to make clarity on the relationships between platforms, migration, and racism. Platforms need disposable and cheap labour force. Mobile labour throughout history has largely provided such characteristics (Altenried, 2021). Enmeshed in processes of differential inclusion, migrant labour in late capitalism is often employed in the most precarious sectors of the labour markets. Migration regimes work to make migrants vulnerable and forced into working conditions which are below the common conditions of acceptability.

On their part, platforms thrive particularly in those sectors where migrant labour was already crucial before their arrival, such as gastronomy, logistics, taxi industry, and cleaning services. These sectors of urban economies on their turn perform essential functions for the reproduction of cities and their inhabitants. Platforms, however, broaden the composition of the labour force in these sectors, extending



access to labour to populations exposed to very diverse migration regimes in terms of temporality and of spatiality.

On the one hand, platforms allow newly arrived migrants to work without knowing the language and local context. Hereby, there are important distinctions to be made concerning the contemporary dynamics of differential inclusion at play, as newly arrived migrants are faced with different border regimes according to their nationality. Within the EU migration space, migrants from EU countries might be better able to work for platforms for a shorter time, while they look for better jobs which match with their qualifications. Instead, migrants from third countries have to stick longer to platform labour, either because their qualifications might take longer to be recognized or because they cannot afford being unemployed for economic reasons as well as for securing their visa renewal.

On the other hand, platforms also attract into their labour pool workers belonging to second and third generations and previously employed in activities characterized by minimum wage, informality, and precariousness. In this case, platforms exploit and tap into existing processes of racialization. They portray themselves as comparatively better alternatives to non-platformized labour relations and leverage on the discourse of “freedom” and “entrepreneurship” (see the case of Uber drivers in Tallinn for a compelling example of such neoliberal appellation). This dynamic is very clear if we think of the recruiting campaigns which Uber carries out in the peripheries of European metropolises, as we have observed in Paris, or in London. In both cities, the platform openly targeted racialized and underemployed youth, with the goal of attracting them into their pool of labour force.

Out of these preliminary observations on the composition of the labour force of the investigated platforms, I start sketching the hypothesis that *the labour relations designed by platforms rest on racialization processes generated outside the platform and/or prior to its arrival in the local labour market*. Platforms do benefit from the disposability of labour made cheaper than the average by the combination of migration regimes and previous processes of segmentation of labour markets. They are thus able to leverage on a variety of conditions created by the interplay of specific regimes of management of flows of migration located in the present as well as in the past.

It is thus legitimate to state that migrants constitute a central component of platform labour, although it must be clear that such an argument is not to be considered as universal and not subject to change. The question of whether platforms can prosper also in labour markets where migrant labour is not accessible or not present should be tackled by empirical research. In the research carried out at PLUS, we observed that platforms attract a more heterogenous labour force, in which also non-migrant groups such as students and retired people play a non-marginal role. In times of increasing precarity and of worsening conditions for large parts of societies, other groups might find platform labour attractive. Both students and retired workers, however, are themselves mobile on the scale of the local labour markets, either because they are about to access them or to leave them. For this reason, I specify the argument, by stating that *platforms attract mobile labour which in most cases tends to be also migrant labour*.

In fact, platforms seem to be interested in labour which is mobile on more scales. Since they are highly dependent on extremely volatile venture capital, they must be able to expand and shrink on a very fast pace. While during the pandemic there has been a phase of impressive expansion, we are now witnessing one of financial squeezing and massive rounds of layoffs throughout the platform economies across the world. To face such volatility, platforms rest on agile business models and an extremely flexible workforce. The first distinction to be made concerns the one which separated the managers, tech, sales, and customer care workers in the offices from the vast mass of mobile workers operating on the streets. On the one hand, the tech workers producing the algorithms benefit from their scarce skills and thus enjoy relatively secure positions, but they are by far not spared from sudden layoffs. More research is needed to investigate these workers, as they are key to the prosperity of platforms, but are still part of the (elite) of the working class in these economies. On the other, the platform workers on which our project focuses constitute the most expendable component of the workforce. They are made as surplus populations within the platforms. As we could see in many cities, the platforms started hiring huge masses of workers to realize their expansion, at the same time lowering the possibilities for income of workers, who found themselves in crowds on the streets competing for a commission or a ride. To cope with such accelerations and downturns, platforms need labour prone to perform unqualified and low paid activities in exchange for a quick fix to their need of income.

### ***3.2 Platforms as Infrastructures of Migration***

In literature, a newly recurring argument states that platforms have become migration infrastructures (Altenried, 2021; Van Doorn et al., 2020). This idea rests on literature on migration brokers, intermediary agencies, and transnational networks of migration (Xiang & Lindquist, 2014; Lin et al., 2017; Meeus et al., 2019), according to which these infrastructures, while they mediate the migration of people, also actively shape these mobility flows. The research carried out at PLUS can help to clarify and specify this argument.

As the interviews with Helping workers in Berlin show, young Latin Americans preparing to move to Europe with a Work and Holiday visa already plan to register at Helping or Deliveroo before moving. Work and Holiday programmes allow young people between the ages of 18 and 30 to reside and work in a foreign country for the duration of 12 months, based on bilateral agreements concluded by the two countries involved. Germany, for instance, has concluded such agreements with countries such as Chile, Uruguay, Brazil, and Argentina. Many young people from these countries have taken advantage of this possibility in recent years. In our research in Berlin, we met a couple of young people from Argentina who had moved together to the city. Tomás holds Italian citizenship, Roxana only the Argentinian one. The two had married before leaving so that the girl could enjoy a more secure status, although they did not exactly know what kind of rights Roxana would enjoy in the European Union

after marriage. Before leaving, they had collected information about the platforms where they would be able to work in Europe. In a first move, they had moved to France. As the calculations made on the visa to be obtained on French soil turned out to be wrong, the two then managed to obtain a Work & Holiday visa with Germany, and moved eventually to Berlin, where she started working for Helping and he for Lieferando (a delivery platform).

People willing to migrate of course prepare for the move by exploring the possibilities for income, the expenses for housing and living in the place they might move to. They operate calculations based on uncertain variables and generalized precariousness (Gago, 2017). Very often, they use the knowledge resources circulating along the transnational networks they have access to and are thus able to make forecasts about which job possibilities are to be found. With their cosmopolitanism, multilingualism, and interchangeability, platforms appear as a more secure infrastructure to make these calculations as correct as they can be. Platforms, in other words, seem reliable to those who are about to become migrants. In fact, they contribute to making migration possible, as they regulate the valorization of mobile labour force and operate on the porosity of borders. Moreover, platforms are potentially generative of migration flows, as they open spaces of access in the places of arrival, triggering the “word of mouth” from those who already migrated to their peers still based in the homeland. They lower the entry barriers located at the borders of local market and make migration smoother. Of course, platforms do not only trigger the mobility of newcomers, but they also attract all sorts of migrant workers, and represent a last resort for those who are in urgent need of a formalized labour relationship, for instance because their visa period is about to expire. Therefore, they can operate also as infrastructures for staying “in migration”.

By acting as infrastructures of migration, platforms can create relationships of exploitation at a faster pace, including a zone of informality into their boundaries. Since the bureaucratic procedures to register for the apps are simplified, and external controls are made more difficult by the opacity of algorithmic management, workers do not have to “waste time” waiting for permissions to work but can start working straight away after they arrive. In many cities, Deliveroo, Uber, and Helping allow for a grey zone which has been defined of “selective formalization” (Lanamäki & Tuvikene, 2022). While this type of formalization aims to codify standards to increase customer confidence and guarantee the availability of a reservoir of customers, thus securing the demand for the service, it does not necessarily formalize the rights of workers, who remain in a state of insecurity. At the same time, the relative detachment of platforms from local systems (tax, social security, but also migration regimes) leaves open doors to spaces of grey formalization, where workers can access the platform despite not having the formal requirements to work (Uber is also worth mentioning in this respect). Platform workers thus access the source of income before they can actually use it. However, the digitized spaces that exist between account creation, login, the acceptance of the first commission and the actual realization of the first gig, are black-boxed. While these informal spaces might be subjected to regulation after some time, platforms exploit the initial phase to initiate an expansion that allows them to increase their monopolistic power and to establish themselves

as infrastructures. Platforms use the disruption moment after their arrival in a new city to operate in such a shady zone of non-legibility by state institutions and use this window of opportunity to scale up very quickly their pool of migrant labour. Finally, the production of working subjects which challenge the antagonism between formality and informality is a key aspect of the platform model.

### ***3.3 Labour Mobilities Across Platform Borders: Mobility as Turnover***

Another way of expanding the concept of mobility emerges if we think of workplace turnover (Andrijasevic & Sacchetto, 2016). From this perspective, migration can be thought of as a counter-practice that people enact to benefit from differentials of exploitation, and workplace turnover as well a practice of resistance against the employer. The ability to make use of the exit option has historically been connected to the Marxian concept of free labour. Authors such as Moulrier Boutang have highlighted how forms of unfree labour have always co-existed to wage labour (1998). The bridling of labour by employers stands in antagonism to the autonomous practices of flight enacted by workers. On its counterpart, immobility in relation to the workplace relates to the Fordist claim against delocalization and outsourcing and for permanent employment. Under late neoliberal conditions, however, with increasing precarization and fragmentation of labour, immobility in the sense of a permanent labour relationship moves to the background, as a remainder from a past mode of production. What comes to the foreground is immobility as confinement into a labour relationship which workers would like to exit but are not able to, because of lack of alternatives.

From this perspective on labour mobility, our research has highlighted recurring patterns across platforms and cities, according to which the socio-demographics of the labour force of platforms change over time. We argue that these patterns relate to the way how platforms, acting as infrastructures of mobility, incorporate and profit from the racialized segmentation of labouring populations, redrawing the boundaries around them.

As mentioned earlier, the composition of the labour force of platforms is heterogeneous. In many cases of our sample, such as Deliveroo in Bologna and Uber and Deliveroo in Paris, we observed that such composition also changed over time along a recurring pattern. While after their arrival in the city, the two platforms offered bonuses and perks to attract a pool as wide as possible of workers, after some time they would start to “tighten the belt”, for instance by switching the pay mode from hourly to piece pay or by introducing a ranking system, so that only highly performing workers might get the most profitable shifts. As platforms kept hiring workers, to cope with their expansion, commissions became scarce, thus exposing workers to increased competition among themselves and compelling them to work longer hours in order to reach a living wage. Due to the worsening of conditions, those workers

able to find other jobs in other platforms or at other workplaces left the platform. As the PLUS researchers in Bologna and Paris observed, some workers, especially the ones who were working as a side-job, abandoned the platform, often starting to work as employees in the same sector. In Paris, many riders, once they left Deliveroo, started working for fairer employers, such as cooperatives. As rare as it is, they could leverage on their experience at Deliveroo and use the acquired skills in a labour relationship with better social security and higher pay. By contrast, those workers with uncertain residency status or more precarious living conditions maintained their occupation at Deliveroo and Uber, having to accept the intensification of working hours and heightened pressure in their everyday work life.

In Paris and Bologna, such differential exclusion from the platform translated into a “migrantization” of the labour force, with nationals moving to better opportunities outside of the boundaries of the platforms. When platforms started “tightening the belt”, processes of stratification along racialized lines emerged, impacting not only on the labour force within, but also outside the platforms. Here it becomes clear how processes of racialization of the labour force cannot be contained within the boundaries of the platforms but connect the insides and the outsides of platforms. As the mobilities of labour out of and into the platforms themselves are inherently connected to the immobilization of labour due to the interplay of migration and labour regimes.

#### **4 Platformization of Labour Relations and Racialization Processes**

Our research, in line with literature on platform work, reveals that platform workers in European cities are exposed to several forms of oppression related to the labour process they engage with. These include the exploitation of their labour force (Vallas & Schor, 2020), increased control of the mobility of bodies through algorithmic management (Animento et al., 2017; Muldoon & Raekstad, 2022), and high vulnerability in their relationship with clients because of the non-liability of the latter regarding ratings (Rosenblat et al., 2017). Labour process refers to the “conversion movement that transform labour power in a commodity” (Gandini, 2018: 1040). In the case of platform labour, the conversion can take place through the labour contract or the terms & conditions which respectively platform employees and freelancers sign when they enter in relation with the platforms. Regardless of the status of platform workers, the labour process theory can be fruitfully applied to platform labour to “unpack the relationship between the employer, who owns the means of production, and the worker as the possessor of labour power” (ibid. 1043). This relationship is understood as antagonistic, with the employer trying to maximize profit out of labour force, and the worker aiming at reducing her/his efforts in the labour process. The service economy, however, which the platforms in our sample belong to, is typically characterized by a more complex, often triadic power relation (Lopez, 2010),

as it rests on relations of power between workers, managers, and customers. The relationship between workers and managers might resemble the classical relation between labour and capital in the context of industrial capitalism, while the relationship between workers and clients entails specific post-Fordist traits, for instance regarding the centrality of emotional labour (Hochschild, 1983).

In platform work, the labour relations are even more complicated, as platforms are not the only intermediaries. In fact, our research shows a proliferation of actors and stakeholders in the local platform economies. From the viewpoint of Labour Process Theory, most workers of the gig economy are faced with multiple forms of oppression, beyond the triadic relation with managers (the platform) and customers. Our research revealed that in cities such as Berlin, Lisbon, and Paris, in the local sectors of ride-hailing the triadic power relationship is further complicated. Due to the local regulatory frameworks, subcontracting companies must mediate between Uber and drivers. These companies, called “Uber partners”, employ drivers through formal labour contracts. This business model, which is becoming predominant across various sectors of the platform economy (see Niebler et al. forthcoming), guarantees the workers with some social benefits attached to the labour contracts, but at the same time puts them in an augmented relationship of exploitation (Animento et al. forthcoming). Finally, a large part of platform workers adopts strategies of “multi-apping”, i.e., uses simultaneously various apps, in order to maximize income. Given the very strict control and command of the labour process via algorithmic management, it can be argued that from the point of view of labour process, platform drivers doing “multi-apping” are substantially facing several employers at one time. The multiplication of bosses (including their own self, of course, see Purcell & Brook, 2022) weakens the capacity of organizing and puts platform workers in a structurally weak bargaining position.

The majority of workers involved in these complex systems of labour relations are migrants. From the restaurants where food to be delivered is cooked, to most of the subcontractors interviewed, from the companies providing cleaning services to professional Airbnb hosts to the traditional taxi drivers occasionally using apps, platforms mobilize whole ecosystems in which migrant and mobile labour are pervasive. However, workers performing different functions within these ecosystems are often stratified along their status and background.

In our research, many of the employers of subcontracting companies working for Uber were migrants themselves. However, in comparison to Uber drivers they enjoy an economically more secure position, also since they often belong to the second or third generation. Thanks to earlier processes of (albeit precarious) upward social mobility, these migrant entrepreneurs could accumulate resources to establish a company. However, small-scale entrepreneurs working as “partners” with Uber and other platforms—recently also delivery platforms have started to adopt the subcontracting model—reported that their businesses are far from being stable and secured, as they face high fixed costs (such as the leasing of the cars, fuel, etc.) and increasing competition and saturation of the market, due to the proliferation of platforms. Thus, “partner”-employers find themselves in an intermediate position, having to deal with economic actors which are far more powerful, and with platform

workers, who certainly are in a relatively more precarious position, often as migrants of first generation, asylum seekers as well as migrants with uncertain status.

A further aspect related to how platforms affect labour relations is connected to the topic of skills and more specifically professionalism. As the research shows, platform workers mostly do not have any possibilities to scale up their positions, accumulate skills, and push for upward mobility. Their jobs are not integrated into a corporate ladder; in fact, such a ladder simply does not exist. The chances for bettering their condition within the companies are connected to internal ranking systems, which based on untransparent algorithmic calculations allocate gigs differently to workers. At Airbnb, hosts can achieve the badge of Super Hosts, which is endowed with some extra perks. However, their conditions do not change qualitatively; they are confined to their position.

If we consider such processes of deskilling in relation to the sectors in which the platforms operate, however, we can add a further specification. The case of the taxi industry is crucial here, as across our sample we observe that drivers working with apps such as Uber are considered less skilful, unable to drive, and not prepared for the job, in comparison to “proper” taxi drivers. Often, the lack of knowledge of the local language (and of the English language in some cases) and of the topography of the city are mentioned by actors of the industry to disqualify Uber drivers as not suitable for the job. Of course, these processes of differentiation are enmeshed with regulatory frameworks which have allowed for a segmentation of the sector, in which in many cases taxi drivers are required to fulfil a set of standards while app drivers are not. The app, which is multilingual and facilitates the use of GPS systems, allows the newly arrived migrants to start straight away to work.

On the one hand, the platform acts as infrastructure of migration and of mobility, providing a chance to work to those who are otherwise marginalized in the local labour markets. On the other hand, however, it operates through differential inclusion, integrating the workers into a niche of the labour market which offers no chances for betterment. These processes of extraction of value from labour force artificially made expendable can be defined as enacting “predatory inclusion” (McMillan Cottom, 2020: 443). As demonstrated by the recruiting campaigns of Uber in the Parisian banlieues, platforms portray themselves as actors able to activate those populations failed by state policies of integration, at the same time as they extract surplus from processes of racialization.

Further, platforms such as Uber separate the labour force, drawing in those workers who end up doing the same job as workers outside of the platform, albeit under much worse conditions. In all cities of our sample, Uber drivers are structurally located below the taxi drivers, in terms of security, income, and social prestige. However, as many interviews with taxi drivers have shown, app and non-app drivers do carry out the same work tasks; their labour processes have much more similarities than differences. The traditional taxi driver industry has undergone processes of digitalization which are not so different from the ones imposed by platforms.

Summarizing, platforms enter labour markets triggering two movements: expanding the labour force by including under-labouring populations, and then dividing these populations, allocating them to different positions in terms of

power, prestige, income, and security. By doing these, platforms allow racialization processes located outside their boundaries to enter at the core of their operations. The acknowledgement of the complexities and intricacies of platform labour allows to understand processes of stratification of labour within and at the borders of platforms. Platforms seem to operate as multipliers of inconsistencies regarding labour relations, dethroning wage labour as the form of labour relations most ambited by workers (Gago, 2017). Platforms make working conditions heterogeneous and more diverse. At the same time, such diversity is not casually distributed across workers, but rather follows patterns of racialized (and gendered) divisions of labour. Often, the physical activities involved in the labour process remain just the same as before the platformization, but the workers performing these same activities are exposed to different labour regimes. In other words, platforms redraw boundaries around working populations, shifting the lines between these and surplus populations, shifting working subjects from one sector to the other, and from one type of labour relation to the other.

## 5 Infrastructural Racism

After demonstrating that platforms can act as infrastructure of mobility on several scales, as well as operate on labour markets by expanding and dividing the labour force, thereby incorporating external processes of racialization, we ask now directly how platforms interact with racism.

We showed that forms of racism intersect with trajectories of labour into, within, and out of platforms, but we now want to ask for the specificities of the forms of racism which platforms mobilize and if they potentially generate new ones. To do this, it seems necessary to locate the analysis in relation to the lively debates about racial capitalism, which have in the past years brought racism back to the fore of critiques of capitalism (Fraser, 2016; Gebrial, 2022; Rana, 2016; Melamed, 2015). As a system of social relations based on hierarchies and differences, racism feeds capitalism by providing legitimation for differential degrees of exploitation, laying the ground for expropriation, dispossession, and other forms of extraordinary extractivism. While the question about the contingency or necessity of racism in capitalism will not be asked here (see Conroy, 2022), I intend to provide an empirically grounded proposal for conceptualizing racism within the platform economy. Racism is a persistent aspect across the data material produced by our research, whether in the forms which are usually defined as systemic, structural, institutional, or interpersonal. Across platforms and cities, we witness an “everywhereness” of racism, which cannot be left unaccounted for.

In the previous paragraphs I already mentioned several examples. For instance, we notice structural and institutional racism when migrant workers are relegated to the semi-formalized sphere of platform labour, because they have very limited possibilities of working in more regulated niches of the labour market. They are prevented access to standard labour because of lack of knowledge of national language, or



because they have qualifications which are not recognized. But even within the non-standard labour relationships generated by platforms, they tend to be stratified along racial lines. Further, our research discovered also forms of institutional racism, although they are rarer, such as in London, where Uber singularly introduced a language test for drivers.

Secondly, our research revealed the emergence of black markets in which accounts for various platforms are shared, sold, and exchanged. This hints to the proliferation of illegalized economies around the market for accounts/avatars. Here, the unrepresentable workers (illegalized migrants, migrants at the margins, sans-papier) are made disposable for work via a further downward stratification, in which they also run the risks of being policed and sanctioned, while they must buy their access to a “safe” account. Again, structural racism is at work here, legitimizing the practices of hyper-exploitation towards groups made vulnerable by a migration regime based on non-recognition and deportability. Further, the stratification along generations of migrants which we described earlier can be understood as a process by which the platforms benefit and leverage on the sedimentation of different migration regimes located in different times.

Finally, in most cities of our platforms, the interviewees reported that they had faced verbal aggressions, physical attacks, and discriminations because of their skin colour or origin. At Deliveroo, riders mentioned that they had been targeted by clients or restaurant personnel treating them badly. At Uber, drivers reported to be assaulted or harassed by clients, as well as by taxi drivers. In some cases, the latter have organized public campaigns against Uber drivers, including campaigns portraying them as perpetrators of sexualized violence, as in London (Gebrial, 2022), and car demonstrations during which Uber drivers were physically assaulted, as in Berlin. Platform workers are thus exposed to interpersonal forms of racism, but what is even more crucial is that they have very low chances to protect themselves from such assaults, except for calling the police. The platforms do not provide them with a security network which they can mobilize in case of emergency; the hotlines are not designed to cope with such cases. Further, most apps do not provide the workers with a rating system for the clients.

Recent literature has focused on the relationships between digital technologies and racism (Hamilton, 2020; McMillan Cottom, 2020; Nakamura, 2009), and in particular between platform capitalism and racism (Gebrial, 2022; Matamoros-Fernández, 2017). Many authors have empirically demonstrated that the idea that technology could allow for the rise of a “colour-blind utopia” is flawed (Hamilton, 2020). Digital technologies reproduce existent racialized inequalities even if they propagate an image of themselves as neutral and benevolent (Benjamin, 2019; Noble, 2018). Algorithms are designed and fed by data generated by human beings, and as such they reproduce the patterns of discrimination and inequality to be found in society.

Platforms operate on labour markets and societies already profoundly shaped by race relations; they profit from racism as a crucial organizing principle of social relations. However, there might be more to be explained when addressing the question about how platforms relate to racism. Here I want to ask whether not only labour

relations in platforms are organized by racism, but also whether platforms themselves are generative of new forms of racism, and how they organize them.

As infrastructures, platforms allow for the circulation of people, things, and money, and of ideas. If platforms engage in processes of “infrastructuring” of migration and mobility, then it is legitimate to ask whether and how they are also enmeshed in the “infrastructuring” of racism. I propose to use the concept of *infrastructural racism*, to explain those forms of racism which are mediated by platforms and digital infrastructures. Structural and systemic racism refers to wider societal structures, institutional racism is placed at the level of institutions, and interpersonal racism is to be found in the vis-à-vis relations between people. Additionally, infrastructural racism allows to grasp the circulation and mobility of “racist scripts” (Molina, 2014) across socio-technical platforms, at the nexus between digitalized and offline social relations.

The example which I want to bring here relates to the rating system, which clients use to rate workers after the commission is completed. Of course, literature has already shown that platform rating is open for discrimination along race, gender, and many other markers (Rosenblat et al., 2017; Vallas & Schor, 2020). Clients are not required any evidence for justifying a bad rate, a verification is not integrated in the app. On the other part, instead, workers can rate clients on some platforms, notably Airbnb, but bad ratings do not impact in the access to income of platform users, it may simply make them less desirable as clients. As commissions are made scarce, of course, rating clients is not sufficient to prevent violent or discriminating behaviour by clients. Interestingly, Helping workers in Berlin managed to create an external non-algorithmic system of rating in the form of blacklists which they share in WhatsApp groups. In many other cases, however, this is not possible, given the huge number of users.

At Uber, many drivers across the cities of our sample reported having received bad ratings which in their views were not related to their performance as drivers. Even if they felt that the ratings might have to do with their migrant origin, the colour of their skin or their gender (and of course with all these markers together), they had no possibilities to prove their intuition, and were left with a sense of non-commensurability. Rating systems are designed to build trust into the relationship between the platform users and the platform, they are not meant to bring equity into the relationship between users and workers, or between workers and platform. Nevertheless, they constitute an unappealable verdict which has the power to lower the income of workers with no intermediation other than the algorithmic one, which is not accountable, and which automatically located workers into a worse position when their rate average decreases. To cope with this, drivers develop very refined techniques to guess how they have to relate to any specific client. For instance, they become sensitive to whether the clients are in a good or bad mood, whether it is better to chat or to keep quiet. Bad ratings are often the result of a failed guess about the client, or the inability to stick to the intuition about the emotional level to be addressed.

An interesting case stemming from our interviews with Uber drivers in Berlin helps to conceptualize infrastructural racism in our research. A driver with Afghan

background, who came to Berlin as a refugee, reported that he had received a bad rate by a client whom he identified as a Mexican businessman. During the ride, the driver had made a negative comment about Arabic people and about refugees, and the client gave a bad rate and even filed a complaint at the platform hotline. In the sample, we had another example of a German female driver, who also was given a bad rate for a racist comment that she had dropped during a ride. What these examples show is that rating systems can be used to police racist behaviour or speech on the side of platform workers, but it cannot work the other way around. In other words, rating systems can be turned into asymmetric sanctioning systems against interactional racism. Workers cannot do anything to defend themselves against racism, but they are exposed to randomized ratings. What is more important, rating has direct consequences on their living condition, it can affect their capacity to make ends meet.

These examples show how racism and anti-racism circulate through the platforms via rating, as well as via the other mechanisms which we have mentioned above. Thanks to their capacity to connect, platforms contribute to make racism infrastructural, with knowledges and practices circulating along the system of labour relations and circuits of value which they generate. They enable the encounter between disparate populations through their algorithmic management; tape into various forms of racism taking place in society and re-organize them. As we have seen, platforms are designed to allow this, as they structurally put their workers into the weakest and most oppressed position of the labour relations which they design.

Platforms do organize and mediate these forms of racisms, they let some forms take place and do nothing, but they act on other forms of racism, so they perform a function of policing, which unequally affects their workers. By doing this, they can affirm themselves as colour-blind moral authorities. In fact, in many interviews, workers formulated antithetical arguments towards the platforms they worked for. On the one hand, they have practical knowledge of the multiple oppressions that they are faced with because of their work, but on the other hand they recursively referred to the platforms as being colour-blind and neutral employers who had whatsoever interest in perpetrating racism or discrimination. In fact, the approach of platforms towards diversity and inclusion can be appreciated as even anti-racist, while at the same time this is an open strategy to attract those marginalized groups who are impeded access to less precarious areas of the local labour markets, as it is so well documented by the recruiting campaigns by Uber and Deliveroo in the Parisian banlieues.

## 6 Conclusion

This chapter has taken mobility, migration, and racism as viewpoints on platform capitalism. Based on the data produced by our qualitative research on platform workers of Uber, Deliveroo, Helpling, and Airbnb in seven European cities, the analysis asked about the intertwining between platformized extraction of labour value and migration regimes, management of mobility, and racialization of the labour market.

Firstly, I focused on the concepts of infrastructure and “infrastructuring”, to make sense of the ubiquity of mobility in the platform economy. Platforms operate on mobilities on several scales. My analysis focuses the attention on flows of labour across national borders and across platform boundaries. Platforms offer themselves as reliable employers on which migrants can count for a smoother arrival; by opening zones of semi-formality at their borders, they allow migrant labour otherwise underutilized by capital to be put to work. If we think of workplace turnover as a form of mobility, platforms adjust their business models to create a pool of mobile labour force, which they can increase or reduce at a very fast pace. As the comparative analysis showed, platforms initially offer better working conditions than those which can be found outside of their boundaries. They provide perks and bonuses. However, after the initial phase, they start cutting benefits and reducing wages, leading the better workers pour out of their boundaries, while those disadvantaged workers, often with precarious residency status and targeted by multiple precarity (Birke, 2022), must linger on.

Secondly, I asked about the types of labour relations shaped by platforms. Taking the perspective of Labour Process Theory, I showed how the multiplication of labour triggered by platforms also leads to promiscuous and augmented labour relations, as platform workers face several forms of oppression in which the wage relation is only a component. Their relationship with customers is regulated by the rating system, while their labour process is controlled and coordinated by multiple forms of algorithmic management, especially if they engage in “multi-apping”. Platforms thus complicate the relationships of power and control in which workers are placed. As wage labour is “contaminated” by the juxtaposition of forms of unfree labour, informal exchange of accounts, fake self-employment, entrepreneurialism of the working poor, the composition of the labour force across the whole platform economy becomes increasingly migrant. Platforms expand the labour force by including racialized under-labouring populations, and then allocate them to different positions in terms of power, prestige, income, and security, leveraging on societal processes of racialization.

Finally, the chapter explores the impact of platform capitalism on racism. After demonstrating that platforms benefit from already existing forms of racialization and hierarchization of the labour force, I passed to examine whether platforms themselves are generative of new forms of racism. Aiming the attention at the rating systems, I suggest that platforms contribute to make racism infrastructural. They allow the circulation of “racist scripts” (Molina, 2014) along their infrastructures, they enable interactions between socially distant populations, and police racist behaviour in ways which affect platform workers differently than platform users. At the same time, platforms portray themselves as colour-blind advocates and strongholds of diversity. They offer themselves as moral authorities, as infrastructures which can impact the offline world and make it more equal.

The chapter offers an insight into the empirical data collected with platform workers in seven European cities. The interviews were carried out shortly before and after the beginning of the Covid pandemic in Europe, during a phase of enormous expansion of platforms and of last-mile logistics. As capitalism approaches a new phase of withdrawal of capital from unstable sectors, we witness massive

rounds of layoffs of both tech and platform workers across platform economies. Having set the ground for a more systematic and nuanced analysis of how platform capitalism relates to migration, mobilities, and racism, this chapter calls for more critical research engaged in locating the analysis of platforms within the broader context of capitalist re-configurations. The current phase of the platform economy will require new investigations, aimed at studying the ways how such restructuring of the sector might affect labour, race, and gender relations, as well as migration paths and flows of mobility out of and into the boundaries of platforms.

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# Affect, Precarity and Feminised Labour in Airbnb in London



Nelli Kambouri

## 1 Introduction

Airbnb in London operates in a liberal regulatory framework for short-term rentals (Boon et al., 2019; Ferreri & Sanyal, 2018, 3363). In corporate narratives, it is often presented as an innovative peer-to-peer platform that creates opportunities for entrepreneurial landlords to gain extra income by using unused spaces, for local communities to profit from the immersion of tourism into local economies, and for guests to take affordable and “authentic” holidays (Airbnb, 2021b; Lalicic & Weismayer, 2017; Mayor of London, 2019). As such, it appears as a representative institution of community interests legitimising the active involvement of hosts into local communities and executives in local governance structures (Van Doorn, 2020). Airbnb corporate narratives, however, silence the negative impact of the platform on vulnerable communities. Recent studies have demonstrated how the platform exasperates existing shortage of affordable housing and may be associated with the rise of long-term rental prices and housing precarity (Zahratu et al., 2021; Shabrina et al., 2019, Temperton, 2020). Although there are some emerging social movements that address its impact on gentrification (Brooker, 2020, Generation Rent, 2021, Simcock & Smith, 2016), public debates tend to silence and obscure the labour aspects of the platform. This is mainly because typical Airbnb-related tasks, such as cleaning, decorating, and caring for guests in private spaces are devalued and unrecognised activities because they are stereotypically associated with unpaid women’s and migrant’s work (Tremblay-Huet, 2018). Moreover, contrary to other sectors that are more visible in the public domain, there are no labour struggles or novel forms of activism against the spread of Airbnb in London, manifesting the continuous influence of the gendered private/public divide (Tremblay-Huet, 2018).

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While Airbnb has a negative impact on vulnerable communities in London, it has from its inception used the terms “community” and “sharing” to denote a seamless group of producers and consumers that seemingly benefit from its mediation (Ravenelle, 2019; Schor & Vallas, 2021). Contrary to this claim, I argue that Airbnb in London has acquired—often unwittingly—the ambitious and complex task of regulating a platform economy that does not only operate by using unused material assets but also by organising affective labour relations. I understand Airbnb as a platform that produces unequal material relations, but also “affective economies” (Ahmed, 2004), in which the bodies of different users come together and interact with material objects—houses, rooms, furniture, roads, pavements, shops, transport vehicles—and with each other. In this context, I consider both private hosting (individuals managing their own rentals on Airbnb), and professional-corporate hosting (companies managing multiple short-term rentals and other activities such as guided tours). The inclusion of the latter is particularly significant as it adds different bodies and objects to the complex affective labour relations including those of migrant cleaners and maintenance workers that are usually hidden from academic and activist understandings of Airbnb as they are feminised and racialised.

The paper is based on the fieldwork that was carried out in London by the University of Hertfordshire from January 2019 to March 2020 as part of the EU Horizon 2020 project *PLUS: Platform Labour in Urban Spaces*. The fieldwork included 15 semi-structured interviews with Airbnb hosts (including private and professional hosts, guides, and cleaners, maintenance workers), 10 interviews with relevant stakeholders (representatives of local councils, labour unions, social movements, and migrant communities), 2 focus groups and participant observation in Airbnb spaces and neighbourhoods in London. Following the PLUS approach, the fieldwork and analysis focused on Airbnb hosting as labour. Moreover, I took into consideration both forms of labour that are directly mediated through the platform (hosting and guided tours) and non-platform mediated forms of labour (cleaning, maintenance) that are necessary for professional hosting. The research confirmed the findings of previous analyses that argued that there is a whole range of low-paid services carried out in and around Airbnb hosting, which prove that processes of precarisation and gentrification are interconnected (Gourzis et al., 2019). Airbnb constitutes a product and at the same time an accelerator of the urban restructuring of specific areas of London, which has, in turn relies on and intensifies the proliferation of precarious labour.

## 2 Gender, Gentrification and Precarisation

On the one hand, most of the critical literature on Airbnb has concentrated on the impact of the platform on urban spaces analysing how it piles on ongoing processes of gentrification of cities and neighbourhoods. In many cities, the spread of Airbnb has exaggerated the displacement of residents, the widening of rental gaps, overcrowding, tourismophobia and overtourism (Amore et al., 2020; Ardura Urquiaga

et al., 2020; Cocola-Gant & Gago, 2021; Crommelin et al., 2018a, 2018b; Lee, 2016; Such-Devesa et al., 2021; Wachsmuth et al., 2018). More broadly, short-term rental platforms are considered as part of a “fifth wave of gentrification” that is embedded in the rise of financialised capitalism and is characterised by the dominance of the digital, the “naturalisation of state-sponsored” construction, and the rise of corporate landlords and transnational elite property investment (Aalbers, 2018, 1). Although the literature on Airbnb’s impact on gentrification provides valuable insights into the distractive impact of platform capitalism on urban spaces, it does not consider how processes of commodification and appropriation of space and social relations are interconnected with labour precarity. There are also some analyses, mostly in tourism studies, which focus on the interactions between users as hosts and as guests, who have different understandings and expectations of peer-to-peer hospitality (Farmaki et al., 2020; Lalicic & Weismayer, 2017), but they do not problematise Airbnb as labour. Moreover, affective interactions in Airbnb are linked to wider processes of commodification of social relations and cultural resources in anthropological and geographical studies. Airbnb is criticised for reinforcing racialised appropriation and extraction of societal and cultural resources (Törnberg & Chiappini, 2020). In tourist neighbourhoods, affective relations “overflow” the platform and disrupt the everyday lives of residents and other non-users living in proximity, who become unwittingly part of value making processes of the short-term rental economy (Spangler, 2019). On the whole, labour in Airbnb is under-researched and under-analysed in the literature that emphasises gentrification and this lack of consideration for labour issues is intertwined with the silences of public discourse and its absence from the agenda of labour movements, reproducing broader gender biases that obscure feminised and racialised labour (Kampouri, 2022).

On the other hand, in the literature on platform labour, Airbnb is usually categorised as a “location-based accommodation platform” (Schmidt, 2017), or as a “capital platform”, a digital intermediary for the rental of private assets (Ilsøe et al., 2021). Airbnb hosts are often perceived as somehow privileged homeowners or multiple job holders that complement their main income through short-term rentals (Ilsøe et al., 2021), which differentiates them from other platform workers who depend entirely on platforms for their survival. Usually the narratives of the “sharing economy” are criticised as they are being used as a tool to attract hosts to rent it short-term to guests, even if they have not previously used their property for profit (Schor and Attwood-Charles, 2017). Nevertheless, there are others who argue that platform labour is much more diverse than many of these categorisations presume (Schor and Attwood-Charles, 2017) and most platform workers across sectors use platforms to supplement other earnings (Huws et al., 2017, 2019). In that sense, Airbnb is not differentiated from other sectors of the platform economy: local regulations (Vallas & Schor, 2020), as well as class-based, race and gender inequalities amongst workers, determine the different ways in which platforms impact on work.

In this paper, I focus on Airbnb as labour. I follow analyses that have criticised the notion of “Uberisation” from a gender perspective, claiming that it obscures

the diverse ways in which platforms operate, especially how they impact on feminised and racialised sectors, such as domestic and care work (Ticona & Mateescu, 2018). Labour carried out in the short-term rental sector, as in the hotel sector, has many common characteristics with domestic and care work, most notably that it is performed in private spaces and that it involves a wide range of material and affective relations that develop around these spaces. I approach Airbnb by using a social reproductive lens, which does not focus on the labour relation only on public spaces, formal “workplaces” and working hours. Instead, a social reproductive lens considers private places and times that are stereotypically associated with reproduction, time off, leisure, or the building of social and community ties. This shift in focus has two implications for the ways in which we conceptualise platform labour more broadly: first, it brings to the forefront complex forms of oppression of gender, sexuality, race, ethnicity and ableism and second it enables us to challenge the silences of more mainstream conceptions of labour and explore labour struggles that are more subtle and take place away from public workplaces (Bhattacharya, 2017).

This poses many challenges for labour organising, but also for research, as platform workers themselves may not even consider Airbnb-related tasks as work. In fact, considering Airbnb as labour requires a recognition that a whole range of unpaid or low-paid services is in fact work. To understand how precarisation works in and through platforms, like Airbnb, we need to go beyond the affective relationships between hosts and guests, and consider algorithms, professional managers, cleaners, and maintenance workers from a gender intersectional perspective. In this, the analysis follows critical gendered perspectives of digitalisation and precarisation in post-Fordism and problematises how gendered labour in platforms is embedded in feminist and postcolonial genealogies (Jarrett, 2015; Mitropoulos, 2005; Lorey, 2015; Armano et al., 2017). Gender and intersectionality are still marginalised subjects in the study of platform labour and whenever they are mentioned they are treated as secondary. In the literature, the gender, sexuality, race, ethnicity and ableism of platform workers are factors that are hardly problematised, while research findings from interviews with male platform workers and observation in public spaces and male-dominated sectors are treated as universal. Very often, generalised statements about white male platform workers in the Global North are treated as the norm, while women’s, LGBTQ, migrant and Global South perspectives are silenced. Focusing on Airbnb as material and affective labour offers an opportunity to challenge some of these gendered and intersectional biases inherent in contemporary research on platform labour.

### 3 Sharing with Strangers

Most platform work is feminised and racialised, not only because there are higher percentages of women and migrant workers employed in and around platforms, but because it reproduces gendered patterns of precarious and unpaid labour, that are typical of affective, domestic and care work (Huws, 2016). In Airbnb, however,

the feminisation and racialisation of labour take a much more literal sense since women form a large percentage of hosts (Airbnb, 2017) and the labour required is predominantly invisible and affective, reproducing gendered patterns of reproductive work. Given the high representation of women amongst Airbnb hosts, a question to ask is what the statistical data on the gender segregation of platform labour would be if Airbnb was not excluded as an assets-based platform. Airbnb can be understood as part of a more widespread process of commodification of domestic and care work (Huws, 2019) in the context of which both female and male hosts need to transform themselves to enter into labour relations that sharing with strangers requires.

As Sarah Ahmed argues, affects and emotions are not static attributes that characterise specific individuals, but circulate amongst bodies and objects (Ahmed, 2004). Affects can be attached to specific objects and bodies through the repetition of discursive associations. In this context, Ahmed uses the term “affective economies” to describe the movement of emotional signs, which like money and commodities, acquire value as they circulate. In parallel to economies, the historical accumulation of emotions circulating amongst bodies and objects produces surplus value that is material and at the same time emotional (Ahmed, 2004, 120). Although Ahmed approaches affect and emotions from a psychoanalytical perspective, she emphasises that psychic dimensions are not neatly separated from the “outside world” but are interwoven with material, labour relations. I find Ahmed’s perspective particularly suitable to analyse affect as a central organising principle of labour relations carried out in Airbnb hosting, a rather fuzzy sector in which it is difficult to distinguish work from non-work, personal from social and professional from private relations and spaces. The crucial question that Ahmed (2004) asks is how “the circulation of signs of affect shapes the materialization of collective bodies” (121).

In ways that are typical of platform capitalism, Airbnb is presented as a technological mediator between hosts and guests engaging in practices of digital “sharing” rather than carrying out labour-intensive activities. “Sharing” is described as a seamless and effortless informal relationship that brings financial and cultural benefits to both hosts and guests, without any impacts on hosts’ everyday lives.

Whatever your financial goals, hosting on Airbnb offers a unique way to meet them—whether it’s to help pay your mortgage, save for upgrades, or set money aside for vacation. And the rewards for opening your home go beyond your bank account. Hosts say the perks also include being able to share your culture and connect with people you wouldn’t have met otherwise, like professional musicians, drone makers, and circus performers (Inside Airbnb, 2021).

Airbnb is represented as giving “opportunities” rather than jobs. While it often boosts for its gender-sensitive campaigns and its positive impact on women, it has consistently resisted acknowledging the affective labour required to keep the platform going. As one female Airbnb host put it, the platform is very careful to ensure the proper usage of the term “work”:

*When you say “people work for Airbnb”, ... that creates the concept that we are employees of Airbnb and that’s what Airbnb really avoids: they make it very clear that we don’t work for them. (Air Lon F 6).*

In a typically gendered way, labour is distinguished from affect obscuring and silencing forms of labour that are not taking place in public spaces. In effect, Airbnb capitalises on informal domestic and affective relations, while at the same time promoting misleading images of amateurish hosts who support voluntarily, enthusiastically and emotionally the platform and self-identify as digital micro-entrepreneurs.

Sharing, however, is a practice that acquires specific meanings in different historical and cultural contexts (John, 2017). In London, hosts typically perceive Airbnb as a continuation of traditional income-generating activities of hosting lodgers. Unlike other cities in which Airbnb brought disruption (see Wang, 2018), Airbnb's spread in the city did not lead to the utilisation of unused assets. Instead, it offered the opportunity to some hosts to rent their property for higher prices and shorter periods of sharing, which has the advantage of allowing hosts, who already had lodgers, to keep a distance from strangers—something not possible with lodgers. What the interviews showed, however, is that apart from some exceptional cases when hosts made new friends, “sharing” a private, intimate space for shorter periods of time, involves emotionally demanding and socially challenging labour, generating affectively charged and value-producing interactions. While initially, social relations with strangers may become a motivation to join Airbnb, and friendships may sustain attachment to the platform, as time goes by and especially as platforms turn into more professionalised sites of “sharing” with strangers, these affective relations become hard to maintain and users become “disenchanted” with the platform (Parigi & State, 2014; Schor & Attwood-Charles, 2017). The circulation of affects is particularly challenging as private spaces are differentially lived and experienced by hosts and guests. While hosts are attached to their private spaces emotionally and corporeally, the latter are only there temporarily to enjoy and take advantage of them. In effect, the intimacy of private spaces may be improved when “nice” strangers arrive, but is also under constant threat as short-term guests, unlike lodgers, are rarely able to develop emotional attachments.

The circulation of affects in Airbnb is fashioned by multiple factors ranging from excitement for the “exoticism” of guests from other continents to a sense of threat and fear for one's safety for suspicious and secretive strangers (Ladegaard, 2018). Negative feelings are often linked to gender, age, race, culture and ethnicity. Female hosts develop strategies to protect themselves from male hosts who resist house rules, including locking their doors or checking guests' bedrooms when their guests leave the house (Farmaki, 2019). Also, our interviews showed that hosts very often feel threatened by younger guests who party, take drugs and cause damages, while older guests may also be threatening because they do strange things destroying and damaging property without explanation. In many interviews British hosts described feelings of fear and distrust towards Asian guests, who were perceived as having different cultural codes and difficulty in communication with Londoners. Therefore, sharing with strangers often reproduces racist, sexist, and homophobic perceptions of others.

“Sharing” is also about affective relations to material objects that determine how affects circulate amongst hosts and guests (Ahmed, 2004), especially because objects

are manifestations of the unseen labour that hosts put into Airbnb. In long-term rentals, there are a lot of shared activities between hosts and lodgers aimed at keeping homes in a good condition. In Airbnb, as in hotels, on the contrary, hosts become over-stretched as they are the only ones responsible for keeping material objects in a good condition. In many cases, objects become manifestations of overburdening affective labour and broken relationships with guests, who do not respect the efforts hosts put into keeping spaces clean and well decorated. This often leads hosts to decide to quit the platform. For example, a 52-year-old male British host that was doing all the cleaning in the Airbnb rooms that he rented because—as he explained—he “couldn’t trust professional cleaners”, explained why he was considering quitting the platform.

I tried thinking of stopping it because sometimes the headache is just ... sometimes the people make a noise. Yes, they make noise, they make too much noise. And sometimes, if you see it, the burns in the carpet. You tell people, “Don’t smoke” they come, and they smoke, and you know, they don’t respect you, I’m thinking, “Oh, maybe I should stop this; it’s just too much headache” I’m still debating in my mind whether I should stop it or not. I’ve been thinking about it six months: should I stop it, should I stop. (Air Lon M 1)

In effect, the noise and marks that guests leave become reminders of strained and conflictual affective exchanges in Airbnb. Damaged, stained, destroyed objects bring to the forefront all the invisible labour required to keep Airbnb income coming and increase hosts’ anxieties over the loss of intimacy of their private spaces. One female host told me that she decided to switch to a hosting relationship, where guests offer few days a week helping with the garden in exchange for a free stay, in order to avoid the constant pressure of having to mend broken objects (Air Lon F 4).

## 4 The Production of Algorithmic Affects

Although hosts in London often perceive Airbnb hosting as a continuation of long-term lodging, platform labour is mediated by algorithms. Airbnb relies, first, on a system of reviews and ratings generated by guests, who are expected to assess the quality of services by posting reviews and awarding hosts 1–5 stars for cleanliness, punctuality, reliability and affordability. Most hosts believe that if they are consistently awarded five stars over a certain period, they will be ranked as “super hosts”, appearing at the top of listings in relevant searches and that bad reviews and complaints by guests will automatically bring their score down to the level of simple “host”. The platform keeps algorithms non-transparent and opaque to protect software intellectual property rights and prevent potential gaming of the system by users (Jhaver et al, 2018). It neither confirms nor denies perceptions that are popular amongst hosts. What makes it even more frustrating for hosts, is that guest reviews are usually arbitrary, reflecting personal tastes and habits, but also social and cultural norms, unrealistic expectations (Farmaki et al, 2020; Zhu et al, 2019), or even fraudulent attempts to gain compensations, or “free holidays” (Air, Lon, M 5). Although hosts can review guests, they can only respond to negative reviews by

posting comments but cannot challenge negative ratings (stars). Through this asymmetry, the platform externalises the risks of customer dissatisfaction blaming the hosts in cases when relations with hosts break down. In effect, hosts, who are aware of the impact that guests' assessments and ratings, must constantly strive to promote informal and intimate relations with guests to avoid negative reviews.

As the relationship becomes filtered through algorithms based on uncertain and unequal criteria, the interactions between host and guests become more asymmetrical too, manifesting platform inequalities of gender, race and class (Cansoy et al., 2021; Cotter & Reisdorff, 2020; Schor & Vallas, 2021). Hosts who are not dependent on the platform and only use it to supplement their income are not as vulnerable as those who use it as their main source of income. Moreover, studies have shown how racial disparities in earnings and racial discrimination are embedded into Airbnb making Black and Muslim hosts more vulnerable than white ones (Schor & Vallas, 2021). In addition, increased competition reduces hosts' chances of being treated favourably by the algorithms. For example, according to some hosts, ratings are based on the number of reviews rather than on their quality. Hosts who have multiple listings or who have entered Airbnb during its early stages build stronger profiles because of the accumulation of reviews, whereas newer ones tend to struggle more even if they have good reviews. As in Uber, Airbnb's automated system has the power "to incentivize, homogenize, and generally control how workers behave within the system despite claims to systematic freedom or flexibility" (Rosenblat & Stark, 2016, 3777).

Studies have demonstrated affective responses to technologies, most notably "algorithmic anxiety" that requires one to constantly negotiate uncertainty over the automatised of client-based quality assurance, while at the same time negotiating relationships with guests (Jhaver et al., 2018). This anxiety is reinforced by cultural and racial norms and representations of hosting that increasingly abide to hotel standards, while also exhuming an air of local authenticity. For example, Airbnb in London imposes on hosts to post photographs based on normalised standards, high-quality resolution and specifications, which can only be attained by professional photographers. Photographic representations of people and spaces are crucial for the circulation of affects in tourist environments (see Balomenou & Garrod, 2019; Ert & Fleischer, 2019). Aestheticised pictures of ideal hospitality that determine algorithmic control impose unattainable standards of hospitality exasperating hosts' algorithmic anxieties, and by extension also impact on both their private and working lives.

Although algorithms mediate the relationships between hosts, guests, and objects, hosts often find it difficult to problematise algorithmic interventions in their relationships with guests, but inevitably "encounter the workings of algorithms in everyday life" and develop emotional relationships with them that shape their understandings the platform (Bucher, 2017, 30). In Airbnb, the realisation of the impact that algorithms have on the pace of every-day life comes mostly when hosts understand that the "sharing" that they do is in fact feminised labour. A retired single woman in North London described how this realisation made her question the platform and pushed her to return to long-term rentals:

Airbnb was just an awful lot of work. I began to feel as if I was running a hotel. I would have to prepare the room, clean it, put on fresh bedding. I have a little fridge in there and I used to stock it up with bits of food and make sure they had tea and coffee and things and so it was quite a lot of work, very time consuming ... I didn't find the bookings time consuming. It was quite time consuming, sometimes, waiting for people to turn up if they didn't turn up when they said they would. But it was really preparing the room and keeping it looking nice and fit for letting that took the time. (Air Lon F 3)

The standardisation and intensification of labour is not the result of coercion but of the circulation of material and affective resources. As labour becomes invisible, hosts are not only asked to *do* things differently but also to *be* different. Life becomes a “self-managed project”, and the self becomes “a site of labour” (Ouellette & Wilson, 2011).

Hosts are expected to spend more and more time on Airbnb, while guests are expected to do unpaid quality control as part of their “sharing” experiences. After leaving Airbnb spaces, the latter are bombarded by automated messages asking them to leave reviews, making more visible another form of affective labour that is embedded into the ways in which platforms are structured to externalise risks. Although leaving reviews and assigning stars to hosts may seem like a gratifying experience, it effectively feeds the system with—often unreliable—information on Airbnb labour, which in turn enables automatic decision making. The intensification of labour, however, is not so much experienced by hosts as a cause of algorithmic control, but as emotional pressure caused by ungrateful strangers. The invisibility of labour is, in turn, normalised as an integral aspect of the economy that develops in and around Airbnb. Algorithmic affective labour generates emotional entanglements that make it difficult for both hosts and guests to protect their intimate spaces and objects, but also themselves from strangers.

Airbnb is not only about productive, but also about reproductive labour. For many hosts, working on Airbnb makes it hard to find and maintain a job or carry out reproductive labour outside the platform (Kerzhner, 2019). Algorithmic control exacerbates work-life imbalances (Benvegnù & Kampouri, 2021). Although hosts of all genders carry out affective labour, female hosts tend to be more conscious of the complexities involved in sustaining a successful profile, partly because they are the ones doing most of this type of work and partly because they carry gendered histories and experiences of reproductive labour that provide them with the emotional tools to recognise domestic-affective labour for what it is. Domestic work carries a “negative affective burden” for women, which reflects cultural perceptions of labour as devalued, banal, boring, uncreative, draining, exhausting and unrecognised (Gutierrez-Rodriguez, 2014, 48). Moreover, it complicates other reproductive tasks, such as caring for children or elderly relatives. Women are in a better position to realise this because they carry the “*baggage of female experience*” (Morini, 2007, p. 43), which results into “the end of the separation between different social times and to the introduction of a perception of the day where there is practically no end” (p. 47).

Male hosts, on the contrary, seem to be much more reluctant to acknowledge that affective labour is labour, as carrying out typically feminine tasks (like cleaning, decorating, or caring for others) is usually a new experience associated with digital



micro-entrepreneurship. Although this is usually impoverished and precarious, it also generates feelings of pride for the digitality, creativity, flexibility and independence that platform work involves (Rossi & Wang, 2020). This re-consideration of care and domestic work as part of the entrepreneurial self is reinforced by Airbnb algorithms and reviews of cleanliness and hygiene, which transform unpaid or badly paid tasks within households into crucial performance indicators. Male subjectivities in this context become trapped into the blurring of the separation of work and life, private and public that are all-too familiar for female workers.

## 5 The Professionalisation of Affect: Manufacturing Intimacy

Looking at the broader picture, the Airbnb economy is not limited to private local hosts that manage their own properties, but there is an entire spectrum of labour that balances between the professional and the unprofessional, the formal and the informal, the private and the public (Bosma, 2022; Katsinas, 2021). While the platform relies on informal emotional interactions between hosts and guests to develop what it is mostly famous for, i.e. “sharing with strangers”, it also pushes both hosts and guests towards more labour-intensive interactions. The professionalisation of sharing forces private hosts to struggle, as they lack the resources, skills and the technical capacity to increase their ratings. Hosts’ performances become disciplined to conform with corporate interests that attract more guests (Dissing, 2022), which results in either into abandoning the platform or giving the management of their properties to corporate Airbnb management agencies.

In London, most top hosts are brokers or specialised real estate agencies that maintain properties across the city and often run apartments and houses transformed into pseudo-hotels (Crommelin et al., 2018a, 2018b; Demir & Emekli, 2021). Almost half of the London Airbnb market is composed of hosts with multi-listings, indicating that there is an accumulation of rented property into the hands of professional agencies, who manage them seemingly without “the presence of a host” (Airbnb, 2021a, 2021b; Inside Airbnb 2021). The percentage is probably even higher than these statistics suggest, since hosts who hand over the management of their Airbnb profile to companies often keep their existing private host accounts, and professional hosts keep multiple profiles in order to ensure that in case of a complaint, they can avoid the suspension of a large percentage of their activities. Professional hosting implies the usage of several apps to adjust their prices and multi-listings, or “channel managers”, such as Guesty, that automatically connect different platforms together and synchronise their calendars and send automated responses.

The limits, however, between private and corporate hosting are not always clear as professionals often start their careers as private hosts. For example, a single 47-year-old professional, that we interviewed had begun her career as a private host, but eventually quit her job and transitioned to a professional career investing on renting

property in order to re-rent it on platforms like Airbnb (Rent2Rent). Before COVID-19, there was a market encouraging such transitions, including books, seminars, courses and apps indicating best locations devoted to Rent2Rent in London and several of the private hosts that we interviewed considered this to be a viable future professional career. (Air Lon F 15).

The professionalisation of Airbnb creates opportunities for female entrepreneurs who can overcome gendered prejudices because of low barriers to entry compared at least to the hotel sector (Airbnb, 2017), but it also generates demand for feminised and racialised poorly paid domestic labour. The other side of the coin can be seen in the story of the single 40-year-old Romanian female artist, who worked as a cleaner for Airbnb management companies. She described the exploitation that takes place in the outsourcing of cleaning to such companies.

“Airbnb companies, there are like a couple of big competitors, you know and for these companies, they are employing people; it’s like modern slavery and let me explain it. Nobody is lasting there for long; people are just coming and going all the time because nobody wants to stay ... Around 4½ years ago and they were offering £10 for one hour, but it is in the Central line and again, you have to carry the very heavy bag with you to get there and they don’t pay for it... and it is the same money, like even 10 years ago; it’s just ... it does not increase at all. But everything goes expensive, you know, in the last few years, especially after the Brexit. (Air Lon F 10).

Domestic physical labour is outsourced to precarious workers—mostly undocumented migrants and women. As one female professional host explained, managing this precarious labour force becomes a task on its own, which includes training and even surveillance practices, like “before” and “after” videos to ensure hotel standards of cleanliness (Air Lon F 14). The exploitative strategies that Airbnb agencies use vis-à-vis precarious cleaners and maintenance workers usually recruited via other platforms shed light on the multiple ways in which platformisation may impact on the world of work. As the interviewee above explains, cleaners are only hired during peak periods and are fired once these periods are over. When they make labour demands, professionalised Airbnb hosts try to silence them.

They want everyone to be quiet, you know. They don’t like people there in these companies who speak for themselves. Yes, there is nobody speak English there’ (Air Lon F 15).

Completely hidden from platform narratives of sharing, but also from most accounts of platform labour, these workers’ experience includes invisibility, which is tied to deportability (De Genova, 2002). This dynamic may explain why migrant women who clean Airbnb spaces appear to be the least excited of all the workers that we interviewed about entrepreneurialism. Studies on migrant women’s activism in platforms in the USA and in South Africa demonstrate that despite the invisibility of their labour, migrant cleaners and domestic workers are not helpless victims but seek to create alternative possibilities for themselves and their communities (Hunt & Samman, 2020; Hunt et al., 2019, National Domestic Workers’ Alliance, 2021). Our analyses of platform labour would remain incomplete unless professionalisation and these exploitative labour relations, but also feminist and migrant struggles come to

the forefront of the theory and practice of platform labour. Eventually we must face the fact that female and migrant experiences come through the backdoor to haunt Airbnb on—and off-line spaces and their seamless narratives of “sharing”.

## 6 Conclusion

The COVID-19 crisis has delivered a big blow on Airbnb in London causing numerous cancellations that initially the platform promised, but later refused, to reimburse in full. “Sharing with strangers” became a source of fear, associated with the threat of disease and death, that paralysed the platform, manifesting that affects are essential for its survival (Schor & Vallas, 2021). The pandemic also produced outrage by previously docile and content private and corporate hosts for its handling of the crisis that made more visible the labour needed to make it sustainable and profitable leading to online organising of all those who saw their income diminishing and their prospects of recovery destroyed (Neate, 2020; Wisniewska, 2020). While these events made it clearer that Airbnb involves income, labour remained obscure as most feminised and racialised labour is. To consider Airbnb as labour, however, forces us to reconsider the gender biases of contemporary writing about platforms. Including or excluding platforms, like Airbnb, in quantitative studies, may transform completely the statistical findings as women are the majority of hosts and migrant women are the majority of workers. Moreover, questioning the gender of the platform worker may disturb analyses of platform subjectivities. What would our analysis be if the platform worker is a middle-aged retired black woman renting a room in her house on Airbnb or a precarious migrant cleaner who is employed by short-term rental agencies and aspires to become an artist? Thinking of the Airbnb host or cleaner as a platform worker forces us to go beyond the places and spaces of production, unpack the binaries of public/private, masculine/feminine and open the study of platform labour to multiple sites in which Fordism was never the norm. These gendered openings will enhance our understandings of platform capitalism and of the contradictions and intersection resistances that emerge within it.

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# Notes From the Field



# Why the Sectoral Context Matters for Platform Work



Bettina Haidinger, Bernhard Saupe, and Philip Schörpf

## 1 Introduction

Sectoral platforms such as *Uber*, *Helpling*, *Deliveroo*, and *Airbnb* offer digitally mediated location-based services. In doing so, they operate in, must adapt to, and can disrupt industries and service markets they enter. The contribution argues for considering the sectoral embeddedness of platforms to explain how and to what extent they are transforming employment relations and service provision. It examines the industry context of sectoral platforms, how sectoral platforms challenge the traditional industry structure through new patterns of work organization, market strategies, and technological innovations, and what this means for sectoral regulation. We compare two types of sectoral platforms: one that brokers cleaning and household services (such as *Helpling*) and the other that provides individual passenger transport services (such as *Uber*) in two cities and regulatory contexts (London/UK and Berlin/Germany). While *Uber* and similar platforms gained a foothold in the taxi industry, challenging existing business models and drastically changing the regulatory context of the taxi industry, platform-mediated cleaning and household services have not radically shaped the sectoral context. Two factors, digitized work organization and the specific sectoral context, explain the different outcomes in terms of market structure, new business models, and regulatory responses.

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## 2 Conceptual Approach and Methodology

Sectoral platforms provide digitally mediated services for a specific industry (Dijk et al., 2018): *Uber* is an example of providing transportation services; *Helping* is a major platform that brokers household and cleaning services. The contribution explores the activities of these platforms through a *sectoral lens* (2.2), as the industry-specific market structure, work organization, and sector regulation are relevant for assessing whether and how platforms can expand their business and shape working conditions as well as labor and industry regulations. At the same time, sectoral platforms have a certain *common* governance form (2.1), namely lean work organization and digitized coordination, which determine service quality and working conditions and—to a greater or lesser extent—have an impact on the industry.

### 2.1 The Governance Model of the Sectoral Platform

First, *highly efficient digital tools* have enhanced the ability of platforms to “make markets”, contributed significantly to lowering transaction costs, and have rearranged informational relationships among clients, service providers (that is the company or independent contractor or self-employed responsible for carrying out the service), and lead firms (Aloisi, 2020; Baronian, 2020). Intermediation between potential clients and service providers has become easier because the app is a low-threshold and simple tool for acquiring the service. At the same time, app-based and algorithmic monitoring of the service provision puts high-performance pressure on the service provider and ultimately on the worker (Kellogg et al., 2020; Veen et al., 2020). In this sense, these powerful digital tools challenge incumbents’ customer engagement and service organization strategies.

By prescribing a certain technology (e.g., software algorithms) and terms of interfering with customers, the service provider’s individual decision on how, when, and where to provide the service and how much to earn from is constrained. The provider is also cut off from key information and processing (such as payment mode, list of customers, rating, etc.), as the platform monopolies this information and is the bottleneck for tapping into the customer market. Of course, there are also counterstrategies such as multi-homing and disintermediation that undermine the platforms’ extensive control over their service providers (Zhu and Iansiti, 2019). Multi-homing erodes the monopoly position that platforms can gain through network effects when service providers use multiple apps to access an expanded customer base, as is the case with *Uber* drivers. When the service provider or worker establishes direct contact to the customer and forgoes the intermediation by the platform, the position of platforms as a bottleneck for intermediation is threatened. Customers who will use the offered service more than once no longer need the platform as an intermediary. This phenomenon can be observed in the cleaning industry.

Second, sectoral platforms want to be *lean* (Srnicsek, 2017), meaning that they keep the core intangible assets (technology and data) in their hands while outsourcing the provision of the actual activity (transport, cleaning, etc.) to a dispersed workforce. They do not see themselves as producers of a service but are mere “enablers” and gain from the productive activities performed by independent contractors through a rent from every transaction the platforms facilitate. They maximize profits not (directly) through productive enterprise activities but through the high valuation of assets due to their technological advantage, through regulatory arbitrage (Tomassetti, 2016) and tax avoidance (Fumagalli et al., 2021) and outsourcing of productive activities to subsidiaries and formally independent entities, including offloading costly employer responsibility (Weil, 2019).

However, according to Aloisi (2020, 26), sectoral platforms rely on two governance logics, the hierarchical imposition of rules as in a traditional firm (setting goals, surveilling work, providing feedback, and imposing sanctions) and the price-based allocation mechanism of markets (dynamic pricing, outsourcing of the actual service). This means—and important court rulings prove this fact—that some of these sectoral platforms exercise managerial power, possess the core means of production (the technology and the data), have the ability to intervene in labour processes and are the masterminds of service provision to an extent that they can no longer be called mere connectors or intermediaries of digital services (Todolí-Signes, 2020). They must assume the responsibility of employers. The extent of platform control through digital means and intrusion into the relationship between customers and workers, respectively service providers, varies from industry to industry.

## 2.2 *Sectoral Embeddedness and Market Regulation*

As sectoral platforms, *Helpling* and *Uber* navigate in sectoral fields, where other companies already operate, a specific market structure prevails, and regulation serves several purposes: industry collective bargaining agreements create a level playing field for employment; product market regulations govern market access, requirements, and standards for service provision; other city and public policies affect demand for these services from the customers’ perspective.

Previous research has emphasized the sectoral context as a critical factor for explaining employer and trade union strategies, patterns of precarious work, or employment outcomes. Keune and Pedaci (2020) conducted a comparative study of precarious work and trade union strategies in three sectors (construction, industrial cleaning, and temporary agency work) in seven European countries. They identified similarities within sectors in different countries as well as differences across sectors in aspects of precarious work, which stem from similar employer strategies and work organizations. Such cross-sectoral differences and intra-sectoral similarities are also at stake in the analysis of work performed for sectoral platforms or “traditionally” provided: work organization and working conditions in the taxi sector in Germany

and the UK have similar characteristics, so do those in the cleaning and domestic services sector. The impact of platformization varies greatly from sector to sector.

Also, product markets as well as trade regulations tend to be comparable across national or city contexts and within sectors, as platforms do not enter wasteland but face more or less protective, detailed, and enforced industry regulation. Muszyński et al., (2022, 17) emphasize the importance of product markets, in which platforms operate, to assess the employment outcomes they generate. Using the example of food delivery, they show that product market regulation setting rules for market entry and consumer protection affects working conditions by limiting competition and establishing minimum standards to produce goods and services. The taxi industry is a highly regulated sector in terms of trade regulation, while cleaning and domestic services were not even considered as “proper work” (International Labour Organization, 2021) until recently, let alone an industry subject to enforceable standards.

Crouch et al. (2009) and Thelen (2012, 145) consider specifics and requirements of the sector as crucial for companies to adapt or deviate from the established (national) governance system. Sectoral platforms therefore not only are rule takers from the national institutions, but also rule makers of the local or sectoral system. On the one hand, sectoral platforms operate within or are forced to comply with the rules and regulations that govern the industry. On the other, innovation and competition constantly challenge the usefulness of this institutional framework and open the search for alternatives. The sectoral platforms first circumvent or ignore the regulations setting labour and service standards and then find substitute solutions and negotiate compromises that affect the industry as a whole.

### **2.3 Methodology**

The empirical data are analysed by comparing traditional and platform-induced market structure, work organization, and innovations in service provision as well as their regulatory embeddedness in the cleaning and household services and the taxi industry in two cities and institutional contexts, Berlin/Germany and London/UK.

The empirical basis of our findings is quantitative and qualitative data collected as part of the PLUS Project. The primary quantitative data on the demand for services mediated by sectoral platforms (cleaning, taxi services, food delivery, short-term rental) are based on the results of an online survey conducted in Barcelona, Berlin, Bologna, Lisbon, London, Paris, Tallinn between November 2020 and January 2021 with 8,149 respondents (Haidinger et al., 2021). To contextualize platforms' activities, we searched for comparable secondary Eurostat and municipal statistical data showing how employment and active firms in the related industries have evolved in the last decade. Data from the Labour Force Survey and Structural Business Survey for the period 2008–2021 were extracted from the Eurostat database and national sources.

To understand quantitative trends in the two industries, we analyse qualitative data based on outcomes from expert and stakeholder interviews in two rounds. The first exploratory round of data collection included 58 interviews with industry experts, local administrators, trade unions, politicians, and members of citizens' committees, as well as 8 European-level interviews. These interviews, which focused on different facets of platform work were conducted between April 2019 and October 2019 and resulted in seven city reports. The second round of expert interviews, in the form of individual and focus group interviews, focused on developments in specific industries (cleaning and household services, taxi services, courier and delivery services, short-term rental) where sectoral platforms are active. A total of 52 industry experts were interviewed between January 2021 and May 2021, resulting in seven city industry reports. For this paper, we use interview data processed from the city and industry reports on cleaning and household-related services and taxi services in Berlin and London.

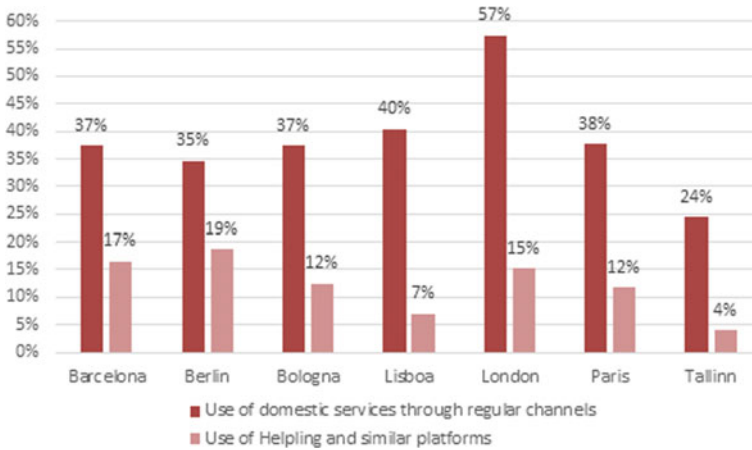
### 3 Sectoral Data and Market Structure

#### 3.1 *Cleaning and Domestic Services*

The cleaning sector can be divided into two major subsectors: industrial cleaning, where companies provide cleaning services to other companies and private households, and domestic services, where the private household acts as a direct employer of the cleaner. So far, platforms such as *Helpling* have mainly been involved in cleaning activities in private households. Whether the platform companies will expand into commercial cleaning is highly uncertain.

According to an ILO report (International Labour Organization, 2021, 48), the number of companies offering platform-mediated domestic and care work has increased eightfold in the past decade, from 28 platforms in 2010 to 224 platforms in 2020. Despite the growth trend of such companies, the PLUS online survey (Haidinger et al., 2021, 23–25) shows that the use of domestic services through channels other than platform-mediated is much more widespread (Fig. 3.1). Platform use is highest in Berlin, where 19% reported using household services via *Helpling* or similar platforms. London shows the highest propensity to use domestic services through traditional channels, with 57% of respondents reporting frequent or occasional use.

In terms of current and future demand trends, industry experts pointed out that demand for household services is steadily increasing (European Federation for Services of Individuals, 2018, 13; Nuria & Ruiz, 2020), and demand is outstripping supply. Therefore, platforms that offer the placement of cleaning staff are entering a market that is far from saturated.



**Fig. 3.1** Use of domestic services through conventional channels compared to Helpling and similar platforms

On the supply side of the domestic services market, the labour market, traditional service provision dominates. In Germany, *Helpling* contracts 10,000 self-employed cleaners to over 100,000 households.<sup>1</sup> In Italy, *Helpling* has a very limited presence, serving 1,200 clients with a total staff of 250 women and 50 men, about half of whom are Italian, according to industry experts. No numbers are available for the UK. This compares with over 162,000 domestic workers (personnel employed by private households, 2021) in Germany, 65,000 in Italy and 43,300 in the UK (2019) and over 1.8 million in the EU-27, of which 89% are women, recorded in the Eurostat Labour Force Survey. Even this data could be an underestimate: according to register data in Germany, the number of mini-jobs holders (i.e., jobs earning less than EUR 450) in private households has surged from 103,000 (December 2004) to 324,000 (March 2021),<sup>2</sup> which is 200,000 more persons than Eurostat reported for 2021.

Undeclared work remains particularly prevalent in the domestic work sector. According to ILO estimates (2021, 277), the number of undeclared domestic workers employed directly by private households in Northern, Southern, and Western Europe was 1,519 million in 2019. Moreover, working hours can be underdeclared by employing domestic workers on a part-time or marginal basis and paying the rest in cash.

In Berlin and Germany, the market for paid domestic cleaning, in which *Helpling* mostly operates, is dominated by mini-jobs, undeclared work, and self-employment, as well as local companies or companies with a franchise system. The generally binding wage for cleaners employed by companies has risen to EUR 13 per hour in

<sup>1</sup> <https://www.helpling.de/pressemitteilung-helpling-gruender-ueber-gesetzesentwurf-von-hubertus-heil>.

<sup>2</sup> [https://www.minijob-zentrale.de/DE/02\\_fuer\\_journalisten/02\\_berichte\\_trendberichte/quartersberichte\\_archiv/2021/1\\_2021.pdf?\\_\\_blob=publicationFile&v=2](https://www.minijob-zentrale.de/DE/02_fuer_journalisten/02_berichte_trendberichte/quartersberichte_archiv/2021/1_2021.pdf?__blob=publicationFile&v=2).

2022, which also includes temporary agency workers.<sup>3</sup> However, most cleaners in private households continue to earn the federal minimum wage of EUR 12 per hour, if they are paid correctly.

In London and the UK, temporary agencies, cleaning companies, and domestic workers hired directly by private households are active. According to Nuria and Ruiz (2020), agencies often insist on self-employment of domestic workers. In these cases, however, bogus self-employment often occurs. Some domestic workers are employed as “live-in” in clients’ households, meaning that they work and live in the employer’s household.

To sum up, the market for cleaning and domestic services is a huge and growing market. Precarious work in the form of undeclared or underdeclared work, temporary agency work, live-in, or with multiple employers is widespread. Women in particular, often with migrant backgrounds, work short shifts and frequently switch between employment or agency-based work and informal domestic work. Earnings from informal work often supplement income from the domestic worker’s main jobs. Payment is close to the minimum wage.

### 3.2 Taxi Services

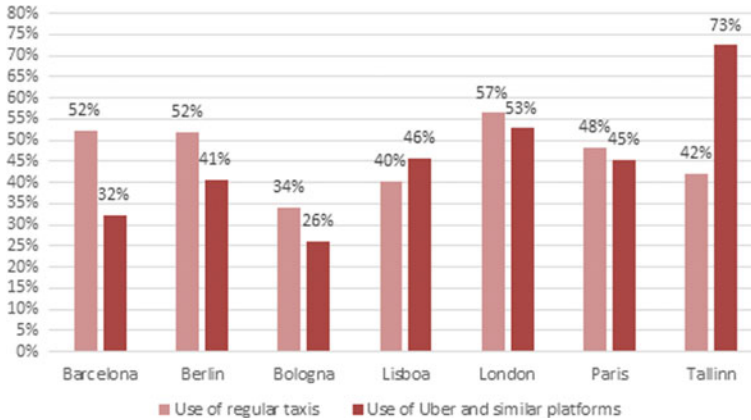
The taxi services industry can be divided into two main segments: the traditional taxi trade (subject to licensing, price regulation, and vehicle restrictions) and ride-hailing services (with fewer regulatory restrictions), in which *Uber* and similar platforms are active.

The PLUS survey data allowed for a comparison between the use of *Uber* and similar platforms on the one hand and traditional taxi services on the other (Haidinger et al., 2021, 21–23). As shown in Fig. 3.2, the seven PLUS cities can be divided into three subgroups: in Barcelona, Berlin, and Bologna, the user share for regular taxis is significantly higher than the use of platforms; in London and Paris, regular taxis also have more users than transport services offered via platforms, but only by a small margin; in Lisbon and Tallinn, more respondents use *Uber* and similar platforms than regular taxis. Overall, the use of platforms is much more widespread in passenger transportation compared to domestic services.

Over the past decade leading up to the onset of the Covid-19 pandemic, demand for taxi services including the activities of ride-hailing services, has increased. This is partly a result of a general economic boom, especially city tourism, and partly a result of an increased supply of taxi services due to the entrance of platform-mediated rides. Data on employment from the Eurostat Structural Business Survey are incomplete and, where available, show a slight increase (from 14% in the United Kingdom to 38% in Portugal) in the number of persons employed in taxi services (including ride-hailing) between 2008 and 2019. In Germany, around 141,000 persons were

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<sup>3</sup> [https://www.lohn-info.de/mindestlohn\\_gebaeudereinigung.html](https://www.lohn-info.de/mindestlohn_gebaeudereinigung.html).



**Fig. 3.2** Use of traditional taxi services compared to Uber and similar platforms

employed in the industry in 2019 (as many as 164,100 in 2018), 17% of them as working proprietors. Compared to 2008, this is an increase of 20%.

City-level data allow a comparison between traditional taxi services and ride-hailing. In Berlin, the market entry of platforms (Uber 2014, and later FreeNow, 2019) gradually shifted the private passenger transportation from the taxi to the rental car business: in 2016, 8,313 taxis and 1,593 rental cars were available; in 2021, the number of taxis dropped to 5,800, while the numbers of rental cars more than doubled to 4,000.<sup>4</sup> Taxi companies usually employ their drivers, but a significant proportion of drivers also works self-employed: In Berlin, 81% of all taxi companies were one-taxi companies in 2016.<sup>5</sup> Uber drivers in Berlin are mostly employed by rental car companies. Employees should be covered by the minimum hourly wage, but this is rarely paid, and income is usually commission-based and does not cover waiting times, according to the expert interviews.

In England, more than three quarters (76%) of all licensed vehicles were Private Hire Vehicles (PHVs), and about one-quarter (58,000) were black cab taxis in 2022.<sup>6</sup> London has seen a 101% increase in PHVs and a 30% decrease in licensed taxis since 2005. According to the expert interviews, *Uber* in London has displaced the mini-cab sector, which is predominant among passenger vehicles, and demand for black cabs has also declined due to increased competition with platforms. In terms of employment, the Covid-19 pandemic led to a dramatic decline in the number of taxi and cab drivers. There were an estimated 127,000 drivers in England in 2022, a 26% decrease from 2020. 90% work as self-employed drivers, 97% are male.

<sup>4</sup> <https://www.taxi-times.com/historischer-tiefstand-bei-berlins-taxikonzessionen/>.

<sup>5</sup> <https://bundesverband.taxi/wp-content/uploads/2021/01/GB-BVTM-2019-2020-Auszug-03-Strukturdaten.pdf>.

<sup>6</sup> <https://www.gov.uk/government/statistics/taxi-and-private-hire-vehicle-statistics-england-2022/taxi-and-private-hire-vehicle-statistics-england-2022#taxi-and-phv-drivers>.



To sum up: until the pandemic, the demand for taxi services increased, especially in cities. Gradually, the provision of taxi services by traditional taxi drivers and companies was replaced by rental car or private hire vehicle companies. Working conditions in the taxi industry are generally described as poor or getting worse as barriers to entry into the profession fall or fixed prices are removed: low and insecure income, long working hours, and strong competition. Remuneration hovers around the minimum wage, which is topped up by tips.

## 4 Work Organization and Technological Innovation

### 4.1 *Cleaning and Domestic Services*

Germany-based *Helpling* is the leading online platform for cleaning services outside the United States. Germany is by far *Helpling's* biggest market, where the company has achieved the leading market position after buying its main competitors. In Germany, *Helpling* specializes in cleaning, gardening, maintenance services, as well as transport services for private households. In the UK, *Helpling* also offers office cleaning.

The business model is that *Helpling* arranges cleaning work and takes care of managing relationship between cleaner and client, including invoicing, IT, and communication. Access to cleaning services in private homes—both for workers and customers—has become more convenient as it is easy to enter the market and offer cleaning services through platforms.

In terms of work organization, *Helpling* sees itself primarily not as an employer of cleaners, but as an intermediary<sup>7</sup> between clients (private households) and cleaners or “partners”, i.e., small companies whose employees perform the actual leaning work (Altenried et al., 2021, 68–73). The *Helpling* model is based on the recruitment of self-employed workers, which is why the working conditions are not regulated by an employment contract but by general terms and conditions. A fee must be paid for the placement, which is up to 40% of the total service cost.

The market for cleaning and domestic services is characterized by high flexibility, multiple employers, and informality. Platforms like *Helpling* seem to fit seamlessly into the sectoral landscape. They complement the market with their services, but do not fundamentally transform it. To some extent, platforms compete with professional agencies that offer cleaners tailored to customers' needs; these services can also be booked online, but no app is used. The price range there is higher because the cleaners are usually employed by these agencies.

New digital technologies affect organization of work in domestic cleaning by controlling access to the market and working time. Domestic work is mainly recruited by word-of-mouth, but clients are increasingly found online and platforms provide

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<sup>7</sup> <https://www.helpling.de/nutzungsbedingungen>.

an easy way to enter the market. To suppress disintermediation, PLUS research in Berlin revealed, *Helping* severely penalizes workers who maintain contact that is not mediated through the platform. To widen customer choice, to build trust and ensure quality of service, systems to rate and review workers, and to select workers based on demographic characteristics such as age or gender, are used. According to Hunt and Machingura (2016), such systems disproportionately benefit customers (who are not evaluated) and bureaucratize the unequal power relations between cleaners and clients. Poor evaluations by clients—regardless of how unsubstantiated and/or untrue they may be—can have a lasting unfavourable impact on domestic workers' access to the market.

Working time has always been a point of contention between workers and clients in private households. Clients often set unrealistic time frames for completing complex and physically demanding work in exchange for low pay (Anderson, 2000; De la Silva et al., 2019). Platforms could have the potential to make working times more clearly defined, trackable, and offered at task-specific rates. The reality is that while platforms allow workers to set their hourly rates, clients decide on working hours and tasks, and the negotiation of working conditions remains very unbalanced.

## 4.2 Taxi Services

*Uber* has become the world's leading provider of ride-hailing and taxi services and is synonymous for platform-mediated individual passenger transportation. In Berlin and London, it is the largest ride-hailing company citywide.

In terms of its business model, *Uber* has had to make adjustments following national and European court rulings. In London, the platform's drivers worked as self-employed freelancers; after the UK Supreme Court ruling in 2021,<sup>8</sup> they enjoy worker status, which comes with certain benefits that the drivers did not have before this court decision. Workers drive their own cars (which they often bought through a loan) or rental cars. In Berlin, some drivers worked as self-employed but this model was rare and usually the first step toward running a subcontracted business. Most platform drivers are employed by rental car companies (*Mietwagenunternehmer*). In contrast to platforms, the traditional taxi industry focuses on providing a public transport service, as they must offer services to all passengers at all times and at the same price.

The work organization for providing platform-run passenger transportation, i.e., driving instructions, working time, and interaction with customers, is managed via an app-based navigation system. It enables monitoring and tracking of employee driving behaviour, cancellation rates, income data, rating systems including rating-based sanctions, interface governance that filters driver access to information, and the so-called dynamic pricing mechanism that charges high prices in areas with high demand for rides and prices are low in areas with low demand. The assignment of a ride to

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<sup>8</sup> Supreme Court, 2021, Case ID: UKSC 2019/0029.

a driver is determined by the driver's rating score, which is processed by the app's technology. Such work organization techniques entail a high degree of information and power asymmetry between drivers and the "system", and the dynamic pricing mechanism is criticized for its unpredictability and ruinous competition (Altenried et al., 2021, 29–31).

The entrance of ride-hailing platforms such as *Uber* had an incisive impact on the taxi industry. The taxi trade is a closed profession, subject to quota and fixed fares. With the additional supply of vehicles from the platforms, which is not limited, the overall supply of cabs to customers increased. The quota system is not always to the advantage of taxi drivers. Those who are "in" do have advantages as competition is limited. Those "out" have to pay considerable costs to enter the market. Platform-mediated businesses have opened up opportunities for taxi drivers to bypass this closed system or supplement it by subscribing to a platform. According to Drahotoupil and Piasna (2017), platforms clearly expand labour supply and lower barriers to entry into the labour market for previously excluded groups and to a protected trade.

To respond to the emergence of *Uber*, incumbents, i.e., traditional taxi enterprises and sole proprietors pursued several strategies, both at the business level and through lobbying at the regulatory level. Traditional taxi companies were incentivized to upgrade their fleets and operating systems: they installed internet-based ride-booking systems that allow customers to book and pay for a taxi through an app. On the customer side, more options to compare prices and waiting times have become available as more taxi companies offer such services. On the supply side, multi-homing has become widespread not only with *Uber* drivers; traditional taxi drivers also use different apps to expand their offer and reduce dependence on one operator.

## 5 Sectoral Regulation and Platform Work

### 5.1 *Cleaning and Domestic Services*

Cleaning in private households has long been, and still is, not considered as proper work. As a result, much of the work continues to be unpaid or done in informal arrangements. The global "decent work standard" for domestic work is ILO Convention 189,<sup>9</sup> which sets out the rights and protections of domestic workers. It is considered a historic achievement, a benchmark, and an extremely important recognition of domestic work as an employment relationship like any other. Recently, a report was published by ILO (2021) on the progress made in implementing the decent work standards set out in the convention and the challenges ahead. The main problems identified continue to be the high prevalence of undeclared work, excessively long

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<sup>9</sup> [https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100\\_ILO\\_CODE:C189](https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C189).

and unpaid working hours, insufficient coverage of occupational health and safety regulations, and filling the legal gaps by including domestic workers in general or specific labour laws, such as working time regulations.

In Germany, there are working conditions for household work regulated by collective agreements at the federal and regional levels, which set maximum working hours, minimum wages, and holidays (Jaehrling & Weinkopf, 2020, 18–19). However, these collective agreements do not even cover the majority of employees in formal employment, as they are not generally binding. The collective agreement for industrial cleaning has been declared *generally binding* and thus applies to all for-profit and not-for-profit companies that provide cleaning services. Whether or not this collective agreement is applicable to private households has not been clarified. Should this be the case, *Helpling* would only be affected if it is considered to be a company that employs cleaners and not a mere placement agency.

The UK does not have a collective agreement that applies to this industry, nor has it signed the ILO Convention on the rights of domestic workers. Moreover, in the UK, domestic workers who live with their employers are exempted from the national minimum wage regulation (Low Pay Commission, 2021).

When it comes to regulations for cleaning work and the role of platforms, two questions arise: does the relationship between the platform and the cleaner qualify as an employment or not, and, if so, what additional features should be addressed in an individual contract or collective agreement between platforms and cleaners? As we have not found relevant rulings addressing these two questions in either the UK or Germany, we refer to the policies in two other European countries. In the Netherlands, in 2019 a legal dispute<sup>10</sup> was brought in by the trade union FNV and a cleaner who claimed that *Helpling* was an ordinary cleaning firm subject to the collective agreement applicable in the cleaning sector. In its judgement, the Amsterdam District Court found no evidence of an employment relationship between *Helpling* and the cleaners. The cleaners can perform the work at their own discretion, can reject offers, and must follow the work instructions of the client, not the platform. However, the court stated that *Helpling* was more than an online notice board and that it played an active part in the placement process (De Stefano et al., 2021, 16). Therefore, agency commissions may not be deducted from the domestic worker's remuneration.

In 2018, the Danish trade union 3F<sup>11</sup> concluded the first collective bargaining agreement (CBA) with *Hilfr* for cleaners working through platforms (Ilsøe, 2020). It established a new category of worker: after 100 h of work, freelancers are automatically treated as employees covered by CBA, unless they *actively* opt out of this status. Protections under the CBA include minimum wage, sick pay, shift cancellation rules, and privacy provisions, including the right to remove inappropriate comments from the platform. If, as in the case of *Helpling*, the platform is not considered as a potential employer, such regulations are obsolete, though.

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<sup>10</sup> <https://www.loyensloeff.com/insights/news--events/news/online-platform-helpling-is-not-all-owed-to-charge-any-commission-to-cleaners/>.

<sup>11</sup> <https://hilfr.dk/om-hilfr>.

## 5.2 Taxi Services

*Uber* and similar platforms have challenged an industry that is highly regulated and where market access is limited: the taxi industry. *Uber's* strategy is to circumvent the rules by claiming to be an “information society service provider” that brokers transportation services. Tomassetti (2016, 17) impressively picked apart the “*Uber* narrative” which insinuated that *Uber* does nothing more than develop software for matching riders and drivers, simplify payment procedures, and borrow its name for marketing purposes. In 2017, the ECJ<sup>12</sup> ruled that *Uber* must be classified as a “service in the field of transport”, because *Uber* in exchange for payment uses a smart-phone application to connect non-professional drivers who use their own vehicle with people who want to take a ride in the city. Moreover, the ECJ noted that *Uber* exercises decisive influence over the conditions under which this service is provided by drivers, including determining a maximum price, controlling the payment process and the quality of the vehicles, drivers and their conduct. Consequently, Member States are free to regulate the conditions under which services such as *Uber* are provided. Therefore, all PLUS cities, including London and Berlin, have introduced new regulations that both regulate and liberalize *Uber's* access to the taxi market. The result is often a compromise but one that has a major impact on the entire private passenger industry.

In Berlin, the Passenger Transportation Act (*Personenbeförderungsgesetz*) underwent an extensive amendment process in 2020 and 2021. The traditional taxi trade continues to be subject to stricter regulations (fixed fares, quota, obligation to operate everywhere, at every time and for everyone, longer training process), but also enjoys privileges. Rental car companies were required to apply for a ride-hailing license, which is issued by municipalities and requires some formal training. They are also obliged to document driver activity and must install a so-called odometer (*Wegstreckenzähler*). Moreover, drivers must return to their company offices before accepting the next assignment, rather than waiting somewhere for a new client. Despite the stricter regulations for platform companies, effective control of compliance with these regulations is currently still insufficient.

London has a two-tier regulatory regime for the taxi industry. Industry regulations are issued at city level by *Transport of London* (TfL). Black cab drivers still operate in a closed market with a maximum number of licenses issued by TfL each year (around 1,000). They are protected—at least partly—from competition by certain privileges, such as hailing on the street and driving and parking in specific zones, but also must follow regulatory requirements, such as regular health checks and demanding qualifications to obtain the licence. Most importantly, all black cabs have an automated system installed with flat-rate pricing. Ride-hailing, on the other hand, has replaced mini-cab riding as a low-cost alternative subject to private vehicle hires standards. While there are less stringent rules on pricing and training, strict safety

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<sup>12</sup> Case C-434/15, Asociación Profesional Elite Taxi vs Uber Systems Spain SL, <https://curia.europa.eu/juris/document/document.jsf?docid=198047&text=&dir=&doclang=DE&part=1&occ=first&mode=lst&pageIndex=0&cid=14733378>.

standards are in place and the TfL can revoke the operating license for ride-hailing platforms if safety is not ensured. In response to the boom in ride-hailing platforms, increased traffic and rising air and noise pollution in London, local authorities also require platform drivers to pay a congestion charge, if they operate in certain areas of the city at certain times to compensate for the environmental impact of their work.

## 6 Discussion

The discussion section extrapolates which factors have contributed to the rather high (taxi industry) or rather low (household and cleaning services) impact of the market entry of sectoral platforms on the traditional industry. The impacts can be divided into changes in supply and demand for traditional and platform-mediated cleaning or taxi services (6.1), as well as new work arrangements and regulatory responses in the sector (6.2). Two factors contributing to the results stand out: (1) a new and more digitized work organization, leading to lower barriers to entry for service provision, more competition, and structural domination of service provision by platform technology, and (2) the sectoral context in terms of characteristics of services provided, demand factors, and existing and potential trade and labour regulations. These two factors differ in their impact: while the digitized work organization leads to convergent outcomes in the two sectors, the specifics of the industry contexts seem to override the impact of platform-typical governance.

### ***6.1 Market Developments in Traditional and Platform-Mediated Cleaning or Taxi Services***

The survey data suggest that taxi service platforms have established themselves as an alternative to conventional providers, with evidence in some cities that the platforms are already as popular or more popular than other service providers. Demand for private passenger transportation is driven by tourism, the availability of transportation alternatives, notably public transportation, and the price and accessibility of the service. The platforms are entering a market that has little prospect of expansion. This means that the platforms are competing in an environment where demand is reaching its limits, and traditional taxis are displaced. With Covid-19, the situation for taxi drivers and companies has actually worsened as closures and lock-downs have caused tourism and mobility in general to collapse and demand for private passenger transportation to drop significantly.

On the supply side, the number of ride-hailing operators is increasing, mainly due to platform-mediated rides. Digitized service provision, i.e., the app-based intermediation and algorithm-based allocation of rides, facilitates the matching of supply and

demand, and enables dynamic pricing. Such service is customer-friendly and convenient. Dynamic pricing on the one hand and the increasing availability of platform-mediated rides on the other have led to lower prices. Lower prices, in turn, fostered demand for platform-mediated rides to the detriment of the traditional taxi industry, where prices are fixed and the number of taxi licenses in circulation is limited.

The use of platforms for domestic services still lags well behind conventional service provision, according to the survey. Direct employment by households and employment by traditional household service providers still account for the majority of these services. Demand for cleaning and domestic work is growing strongly, not least due to demographic, socio-economic, and public policy developments. Platforms that broker domestic services are penetrating a market for cleaning that is far from saturated, but so far, the platforms' business model is not gaining acceptance in cleaning and domestic services. Nonetheless, app-based intermediation facilitates access to services for customers and service delivery for workers. Where tasks prevail that are done on a regular basis, such as in cleaning and domestic services, disintermediation jeopardizes the platforms as being a bottleneck for intermediation. Once service providers or self-employed platform workers have established contact with potential customers, who use the service more than once, the platform is no longer needed. The platform has then fulfilled the purpose of mediation. Moreover, trust plays a crucial role in the customer relationship and mitigates competition. Also industry-specific is the limited profitability potential of the sector, where rationalization is hardly possible and private households are not willing to pay much for such services. When prices are too high, domestic work is again informalized, either as undeclared work or unpaid work. Even *Helpling's* (former manager) Benedikt Franke acknowledges that costly employment (rather than self-employment) is not possible unless tax incentives or service cheques subsidise the purchase of household-related services (ArbeitGestalten, 2017, 18; Leduc & Tojerow, 2020). This is, of course, a very telling statement from the founder of the largest platform: decent working conditions in domestic cleaning are not affordable, unless the activities are subsidized.

Platform-typical technological innovations, lower prices, as in passenger transport, and/or more convenient access of customers to the desired service, as in both industries, contributed to a competitive advantage of sectoral platforms over traditional service providers lagging behind with service innovations. At the same time, the specifics of the desired service (regular, trust-based, hardly rationalizable, and personal compared to one-time, unemotional, with potential for leaner service provision) slow down or encourage the use of platform-mediated services.

## 6.2 Responses in Sectoral Regulation to New Work Arrangements

The responses of sectoral regulation in cleaning and domestic services and taxi services following the activities of platforms differ enormously. While for domestic and cleaning services, responses are modest and specific, for taxi services, they are far-reaching and general. Again, the specifics of the sector either reinforce (taxi) or hamper (cleaning) the application of platform-induced technology which in turn leads to different regulatory responses.

*Uber's* initial strategy was to describe itself as an “information society service provider” that only intermediated and did not provide transportation services. *Uber* worked with self-employed drivers using *Uber's* core means of production, namely app- and algorithm-based technology which plays a key role in service delivery, the labour process, and pricing. *Uber* entered a dualized market for private passenger transportation. On the one hand, the traditional taxi industry is highly regulated, with fixed and regulated fares, and the number of taxis or taxi licences allowed to operate in a city is limited by quotas to protect the taxi industry from competition. This means that employed taxi drivers are entitled to an hourly wage and self-employed taxi drivers, i.e., one-taxi-companies are guaranteed a minimum fare. On the other hand, rental car companies (Berlin) and privately hired vehicles (London) provide private passenger transport services that are less regulated, and not subject to price or quantity regulation. In the latter field, the *Uber* model has taken hold and gradually pushed back demand for traditional taxi services. Clearly, then, technology has helped to create a new and powerful business model in private passenger transportation.

However, industry-specific characteristics forced *Uber* to revise its original business model. The ECJ ruling that *Uber* must be classified as a transport service and not as an “information society service” and the national court rulings, such as in the UK, emphasizing the worker or employment status of drivers, strongly reflect the impact that the introduction of digital technology has had on the discretion and independence of the driver in the provision of transport services. The employment situation of taxi drivers facilitated by *Uber* has even taken a paradoxical turn: The recent Supreme Court ruling in the UK<sup>14</sup> demonstrates that the provision of taxi services through *Uber* may entail a higher degree of subordination and control over working conditions than when mediated through a traditional taxi company (Drahokoupil & Piasna, 2017). As a result of such court decisions and respective national or municipal sectoral regulations, *Uber* is increasingly hiring sub-companies to employ drivers with formal labour contracts. This strategy should prevent precarious work, but often reproduces the precariousness of the freelance model when sub-companies cooperating with *Uber* use a wide range of semi-legal or informal practices to circumvent labour law (Altenried et al., 2021). Nevertheless, by classifying the work relationship between drivers and the platforms as an employment, workers are principally included into key pieces of labour protection, and “*the employment relationship remains a paramount institution in delivering workers' protection*” (De Stefano et al., 2021, 41–42).



This is precisely what has not happened in the case of cleaning services provided by sectoral platforms. In a Dutch ruling, *Helpling* was neither classified as a cleaning company nor as a staffing agency that must offer an employment contract (De Stefano et al., 2021). The degree of subordination was not considered strong enough. The new technology for brokering and standardizing domestic services tasks has less influence on the execution of the task and the nature of the employment relationship than in passenger transportation. The *Helpling* model fits perfectly with the non-committal and flexible nature of cleaning work in general, where employees often hold multiple jobs, and an employment, a fixed workplace or one with the same client are rare. It is argued that platforms contribute to the formalization of employment in this sector, as workers have to register online and are visible for recruitment on a website. However, a key question remains: do platforms contribute to formalizing domestic work *and* do they improve the social protection and working conditions? For now, the answer is rather negative. On the positive side, digitalization offers domestic workers and cleaners new avenues to seek employment and become more independent. On the other hand, the increased use of digital means to track workers and evaluate their performance seems to bring unilateral benefits to customers (and platforms). Therefore, formalization and a (minor—as the numbers are still low) shift from undeclared to declared work may have taken place but only in the sense of restoring precarious, unstable, and non-committal working arrangements that were typical of the cleaning and domestic services sector before the platforms became active.

## 7 Conclusions

Clearly, platforms as service interfaces and the use of app- and algorithm-based tools to structure the work process and facilitate the matching of supply and demand for services, have influenced and changed the way services such as cleaning and individual passenger transport are provided. The reliance on self-employed or independent contractors, the replacement of employment relationships with contractual and platform-mediated relations and of wage determination with price determination on the one hand, and the key role of algorithm-based technology and standardization to convey and control outsourced tasks on the other, constitute key features of sectoral platforms.

The extent of platform-induced impact, however, varies per industry. Between a highly intimate, trust-based, and regularly performed service like cleaning in private homes and one-time rides there are notable differences in how digital, app- and algorithm-based technologies affect the labour process and work discretion. In private passenger transport, the platform controls access, price, and processing, unlike cleaning, where the platform interface has so far mainly been used to control customer and worker access to the service market, rather than task performance itself. These disparities also result in various regulatory responses, which were far more

pronounced in private passenger transport than in cleaning and domestic services, though with ambiguous results.

Ride-hailing platforms have had a disruptive effect on the taxi industry reducing demand for traditional taxi services and reinforcing its dual system of industry regulation. By allowing a new or updated category of private passenger transport, namely ride-hailing, municipalities have both de- and reregulated the sector. On the one hand, higher professional standards in place in the taxi industry are levelled down by allowing ride-hailing companies to offer an equivalent service with less formal training and requirements, but as a cheaper alternative to traditional taxi rides. On the other, platform drivers have become subject to some formal requirements. The platform system of dynamic pricing and flexible vehicle supply has taken hold in the industry, not least because regulations have been negotiated which explicitly allow the ride-hailing business.

Cleaning platforms have a less disruptive impact. This is because the cleaning and domestic services sector has been and continues to be characterized by informally negotiated working arrangements and working conditions, personal dependency, low and irregular pay, and un- or underdeclared work. The regulatory framework for domestic services is weak. Moreover, the work itself and the underlying labour processes have not been changed by platform intermediation. Therefore, the impact can hardly be disruptive, as the industry is already one with a poor status. At the same time, sectoral platforms have so far done little to improve the working conditions of cleaners. Industry-level collective agreements with enforceable labour standards including for platform-mediated work, such as in Denmark, are unfortunately still rare. However, they would be a promising way to raise labour standards and broaden the opportunity structure for workers.

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# A Variegated Platform Capitalism? Algorithms, Labour Process and Institutions in Deliveroo in Bologna and Uber in Lisbon



Marco Marrone and Giorgio Pirina

## 1 Introduction

There are few doubts that platformisation is inherently a global phenomenon. Despite being just the last episode of a longer process, the possibilities provided by digital technologies have brought global economic dynamics to an unprecedented level of inter-connectivity. Digital platforms have not only been able to *stick* across the different *global cities*, but they have also expanded across urban economies entangling both formal and informal sectors. It may be delivering pizza, driving passengers or domestic work, the algorithm management has been able to create an unprecedented labour process that seems to adapt to multiple contexts with very little differences. However, this does not mean that local specificities have disappeared. Existing empirical literature has also emphasised the crucial role of local factors in addressing business model, labour conditions, market dynamics and regulatory principles. Very little on the other hand has been written about how they co-operate to determine the normative dimension in which the labour process takes place and, ultimately, to what are the factors lying behind the uneven development of platform capitalism.

This paper aims to fill this gap by adopting the lens of *variegated platform capitalism*. Drawing from the contribution of Peck and Theodore on *variegated capitalism* we will provide a more nuanced view where the *uneven development* of platform capitalism is not simply a result of local resistance to global challenges but is of co-constitution/co-evolution dynamics happening among institutional and non-institutional actors at both global and local level. This approach will be empirically tested by adopting a *following the algorithm* methodology, which means conducting multi-situated research to look at how this transform across time, contexts and sectors.

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This implies a view on algorithms where this is not merely a technical object, neutrally corresponding to the necessities of platforms, but is itself a terrain of struggle that can be influenced by power relations, new regulations, and institutional behaviours. In this context, following the algorithm means investigating the way in which the labour process has transformed to understand the genesis of those changes, the logics governing them and their impact in terms of working conditions and workforce composition.

The cases considered here are those of Deliveroo in Bologna and Uber in Lisbon. They are two logistical platforms—transporting goods and people—operating in two southern European countries and in both cases have been exposed to regulation attempts. Yet we can find different outcomes that did not remain as local adaptations but became new standards at global level. By looking at both similarities and differences, while on one hand we will conclude that institution still matters, on the other we will insist on the necessity to move on a more nuanced view that gives relevance to the role played by co-constitutive and co-evolutive transurban dynamics in addressing the uneven development of platform capitalism.

## 2 Think Global, Work Local. Towards a Variegated Platformisation?

There are very few doubts that digital platforms are the protagonists of a «truly transnational phenomena» (Cuppini et al., 2022). They operate on an unprecedented scale, providing whatever goods and services, on site and on remote, across both *west and the rest*. As argued by Peck & Philips, platforms characterise the «conjuncture» we are living being «variegated and conjunctural form(ation), insinuated as it is into everyday life and various (de)regulatory settlements, while at the same time residing in the ethereal space of the “cloud”» (Peck & Philips, 2020). Critical scholars have also highlighted the relationship this formation has with long-term processes of neoliberal globalisation, perceiving it as both cause and consequence of a further acceleration of its extractivist tendencies (Srnicsek, 2016; Mezzadra & Neilson, 2019). Others have stressed the role of technological developments is often seen as the responsibility of a disruptive innovation that is making the platform the protagonist of a «digital globalization» (Baldwin, 2016; McKinsey & Company, 2016). Effectively, digital technologies such as the algorithms allow unprecedented organisation possibilities, i.e. to apply similar principles of «algorithmic management» in very different contexts (Stark & Pais, 2020). The global nature of platform capitalism is even more evident if we look at their ability to expand the notion of extraction beyond traditional working spaces, including the more general social cooperation happening at global level (Casilli, 2019; Mezzadra & Neilson, 2019).

At the same time, this does not mean that territorial context and institutions do not matter anymore. Empirical studies have in fact shown how even local institutions can play a key role in addressing platform development (Mazur & Serafin, 2023;

Muszynski, Pulignano, & Marà, 2022). The global mobilisation of riders and drivers have stimulated an intense law-making process on urban, national and international level that has diversified the labour process, market dynamics and the functioning of algorithms (Graham & Woodcock, 2018). Moreover, local context may also address contingent agency, fostering practices of counter-use of the algorithm or the availability of BOT able to circumvent algorithmic control (Shalini & Bathini, 2021; Sun & Chen, 2021). In other cases, the specificity of local context has also supported the development of digital platforms, as in the case of *Prop 22* where a mobilisation led by digital platforms has stopped the attempt to regulate the sectors conducted by California's government (Ovetz, 2022). These episodes show that local cultures and institutions have not been erased by the global spread of platforms but are still exercising their influence.

However, the existing literature has already focussed on the role of both global and local factors in addressing platform capitalism development. But what about the relationship between them? How do they influence each other? In which way do they operate in imprinting the trajectories of development? To answer these questions, it is firstly necessary to position the object of our research—the uneven development of platform capitalism—at an appropriate level of historical depth. We are not the first ones interrogating these questions. A significant stream of literature has in fact developed among those challenging the view of globalisation as a «strong discourse» (Fukuyama, 2006; Ohmae, 1995). More than a global capitalism, these authors have highlighted the emerging of a plural scenario, characterised by national capitalisms and welfare state models—typically USA, Germany, Britain and Japan—in constant competition with each other (Albert, 1991; Berger & Dore, 1996; Hall & Soskice, 2001). This view has been largely influential across the different disciplines, from political sciences to industrial relations (Baccaro & Howell, 2011; Meardi et al., 2009), challenging the mainstream view on the «end of history» and providing an *alternative plan* such as that of the variety of capitalism.

Despite the merits Peck and Theodore (2007) recognise to this stream of literature, this does not mean that it does not present distortion and limitations. For example, the attempt to explore the rationality of economic actors has in some cases given emphasis to «excessively narrow, firm-centric and rational-action models of variation» (Peck & Theodore, 2007, p. 743). The introduction of geographical variability has almost uniquely been translated in national archetypes, where the coherence of national regulatory configurations is often assumed rather than empirically demonstrated. A very typical example is the dualism between the German ordoliberal model and the American neoliberal one, often perceived as the two-sides of the variety spectrum. The result is a privileged understanding of the variation of capitalism available in the North Atlantic, while the rest of the world—with the notable exception of Japan's Toyotism—has largely been neglected by these studies. The problem, however, is not simply the exclusion of the largest of the world, but it is that of underestimating the role of more radical path-altering changes dynamics.

There is enough then for Peck and Theodore (2007) to ask whether the variety approach is still an appropriate way to comprehend the uneven development of capitalism. While it seems useful to maintain a view where *institutions matter*, it

is necessary to expand the understanding of institutions we found in the variety approach. This, for example, by adopting a more varied and multiscalar view—briefly synthesised below (Table 1)—it seems necessary to develop a more dynamic understanding of capitalism where spaces and scales are also a construct of the cycles of values. What is called with the variegated hypothesis is a more nuanced analysis of temporality and spatiality of capitalist development including hybrid forms of restructuring that usually escape from formalised, system-centric analyses. In a nutshell, variegated capitalism means:

«moving beyond the routine pluralization of capitalism, and the alternating proliferation and pruning of a reified set of ‘models’, to probe the principles, sources and dimensions of capitalist variegation, understood as a more explicitly relational conception of variety. In other words, it means coming to terms with the causes and forms of capitalism’s dynamics polymorphism [...] holding together questions relating to the uneven development of capitalism and co-constitutive/co-evolving forms of institutional restructuring» (Peck & Theodore, 2007, pp. 760–764).

A possible support in understanding this dimension comes from the *transurban* approach developed by Cuppini, Frapporti and Pirone (2020) that one may therefore say being in line with the critiques moved by Peck and Theodore on the variety of capitalism. By investigating a long-term historical development of platform capitalist regime, they highlight how: «it is not possible to separate an analysis of industrialization processes, technical innovations and labour transformations from the environment in which they develop, the spatial configuration they create and interact with, that is to say (in this case) from the urban» (Cuppini et al., 2022). Moving from a world-ecology perspective, they stress how the global ubiquity of digital platforms does not come from nowhere it is part—and at the same time a result—of a common logic of accumulation: «from Venice to Amsterdam, from London to New York, cities used to represent the logistical and financial heart of the world-systems. These cities were laboratories of forms of coexistence and conflicts, miniaturised worlds». In looking at capitalist development through this lens they underline how logistics and platforms are then not simply economic factors but are «crucial vectors» for the continuous and ongoing mutations of the spatial dimension revealing «how local and situated peculiarities and frictions generate variations in the global operations of capital» (Cuppini et al., 2022).

### 3 Methodology: *Following the Algorithm Hypothesis*

How can the inputs coming from the abovementioned debate be methodologically translated? How can this hypothesis be empirically tested? How can these lenses be useful in understanding commonalities and differences of single case studies? To confront the ongoing stimulus coming from the ground and to adapt the research to different geographical contexts, we have opted for a methodological framework inspired by multi-sited ethnography. According to George Marcus (1995), when investigating an object of study, the multi-sited approach goes beyond the intensive



**Table 1** Variety and variegated capitalism

	Varieties of capitalism	Variegated capitalism
Problematic	Understanding institutional variability among advanced capitalist economies	Explicating processes and forms of uneven development within, and beyond, late capitalism
Case study rationale	Comparative cases positioned relative to the privileged axis of FLME < - > CME	Individual cases selected according to their theoretically generative properties
Method	Tendency for parsimonious institutional political economy with strong rational-choice component; ideal-typical theorizing; reliance on secondary sources and game-theoretic procedures	Relatively ecumenical institutional/cultural political economy, elaborated through qualitative case studies; post-positivist theorizing; inclination to urban and regional analysis; rejection of methodological individualism
Privileged agents	Firms, business associations, and policy entrepreneurs	Agents generally afforded relatively weak analytical status, as bearers of prevailing modes of restructuring or nascent forms of resistance; agents embedded in constitutive network relations
Analytical gaze	Privileging of national institutional archetypes and relatively bounded national economies; emphasis on lead firms, dominant industries, and formal institutions	Emphasis on decisive moments of economic transformation and institutional restructuring; real-time analysis of regulatory projects and experiments in the organization of production; multi-scalarity
Temporal dynamics	Presumption of equilibrium within selected institutional fields (absent exogenous shocks); emphasis on relative stability, incremental change reinforcing institutional settlements, punctuated by occasional disruptions	Dynamic analysis, concern with endemic restructuring; presumption of disequilibrium and persistent crisis-proneness
Scalar dynamics	Methodological nationalism; presumption of high degrees of endogenous institutional coherence and a unified national-economic space; super-modularity registered at the national scale	Social construction and relativization of scale; potential for super-modularity and conjunctural effects at multiple spatial scales (eg, 'locality effects'); concern with multi-scalarity (eg, 'glocal' hybrids and cross-scalar networks)
Historical trajectory	Dual convergence or 'twin peaks'; static-comparative analysis of archetypal development models	Combined and uneven development; embrace of contingency; rejection of the necessity of either convergence or divergence; concern with path-shaping and path-altering change

(continued)

**Table 1** (continued)

	Varieties of capitalism	Variegated capitalism
Typical levels of abstraction	Micro-analytic accounts of firm behavior embedded within meso-level institutional architectures	Meso-analytic interpretations of relatively concrete institutional conjunctures located within unevenly developed (capitalist) system
Normative project	Defense of European- and Japanese-style social democracy and corporatist regimes; concern to explicate non-neoliberal modes of development	Revealing internal contradictions of neoliberal globalization; identification and promotion of alternative (and/or progressive) forms of local development

Source Peck and Theodore (2007, p. 763)

analysis of a single location; rather, becomes pivotal *following* the object (which could be a person, an idea, an artefact, etc.) around a multiplicity of spaces. Our challenging proposal here is to *follow the algorithm*, that is, looking at its logic and the tensions emerging in the specific socio-institutional settlement contexts where digital platforms operate. The idea is that algorithms are not space-temporally *flat* and are not completely impermeable to (or, maybe, indifferent to) the context. We already know, in fact, how this can be crucially affected by local institutions and regulations, but also how this is able to circumvent them by multiplying—instead of reducing—informal spaces and dynamics. At the same time, this embodies its adaptation and is also able to transform local experiments into new global standards of labour process. In this perspective, the multi-sited approach does not only allow us to give operability to the variegated capitalism approach but allows us to investigate the crisps emerging among the extractive feature of platform work empirically investigated here.

This contribution considers the operations of food delivery and ride-hailing digital platforms in two cities, respectively Deliveroo in Bologna (Italy) and Uber in Lisbon (Portugal). We are aware of the risks about the comparison between different contexts, with different administrative and legislative arrangements: Bologna is the regional capital of Emilia-Romagna (an Italian region), while Lisbon is the Capital city of Portugal. However, both cities have in common at least a number of elements. To begin with, they do not hold direct competencies in the field of labour regulation, since it is under the State authority. Secondly, in Bologna and Lisbon the platform economy has experienced an imperious growth, with disruptive effects on the urban economy and the sectors concerned: food delivery and short-term house rental in Bologna; food delivery, ride-hailing and short-term house sectors in Lisbon. Third, over the past decade both cities have embarked on becoming major technology hubs: in this regard, Lisbon has become a favoured destination as the headquarters of major ICTs multinational companies, while Bologna since 2010 is the seat of one of the major technopole in Italy. The interest of the city of Bologna for becoming a major technological capital has been confirmed with the opening of its Data Center in mid-2022, hosting the supercomputer Atos employed by the European Center for Medium Range Weather Forecast. On the other hand, the platform labour process

of Uber and Deliveroo also presents differences and similarities. They differ in the level of engagement required by workers facing the costs of maintenance of a car, and, related, on the worker composition. However, we also see relevant similarities, in the functioning of algorithmic management and in the relationship they have with the urban context in which they operate. In a wide sense, they are both *logistical* platforms, transporting goods and people around the city as fast the algorithm can push them. Moreover, riders and drivers are two of the main subjectivities that distinguish them from the rest of platform workers for the ability to organise and (partially) achieve successful outcomes such as new regulations of the sector.

The data considered here comes from the semi-structured interviews conducted among workers of these platforms on the impact of digitalisation in the labour process. As represented in Table 2, in the case of Deliveroo in Bologna 15 interviews have been collected among workers with different characteristics. In the case of Uber in Lisbon, 15 interviews have been conducted with drivers (Table 3). In both cases the sample was chosen trying to be as representative as possible based on socio-demographic characteristics. In the following pages the two case studies will be presented highlighting the transformation occurring in the labour process, the factors determining it, the impact this has had on workforce composition and in working condition, enhancing the ability of platforms must adapt and transform possible obstacles into a new terrain of development.

## 4 Delivering the City of Food: The Case of Deliveroo in Bologna

Deliveroo in Bologna arrived in 2017, when the city was already known as the *City of Food*. This was the city brand adopted by the local government to carve out a space for Italy's traditional tourists offering an experience in one of the gastronomic capital of the country. This was successful in increasing the number of tourists in the city, but also in promoting local business, even financing a local food delivery Start-up named *Sgnam*.<sup>1</sup> Bologna is also well known for being the place of one of the oldest universities in the world and this brings thousands of students to the city each year. Considering the cultural attitude of the city, the growth of the local economy—the *Camera di Commercio* in Bologna has been calculated that Bologna has a bar and a restaurant each 37 inhabitants<sup>2</sup>—and the large availability of the student workforce, it is not surprising the rapid popularity Deliveroo has achieved in the city.

Initially, in fact, Deliveroo has recruited most of the workforce among students who are historically inclined to *gig jobs*: «with Deliveroo you could decide whether to work, so if you need to study you could decide to not go, which is something

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<sup>1</sup> For more details see Marrone and Peterlongo (2020).

<sup>2</sup> Information retrieved from (Last Access 19/01/2023): [https://bologna.repubblica.it/cronaca/2017/10/25/news/l\\_invasione\\_del\\_cibo\\_a\\_bologna\\_un\\_ristorante\\_o\\_un\\_bar\\_ogni\\_37\\_abitanti\\_del\\_centro-179237419/](https://bologna.repubblica.it/cronaca/2017/10/25/news/l_invasione_del_cibo_a_bologna_un_ristorante_o_un_bar_ogni_37_abitanti_del_centro-179237419/).

**Table 2** Table of interviews for Deliveroo (Bologna)

Name	Age	Average income	Education	Nationality	Income source	Platform working experience (months)	Average working hours (monthly)	Employment relations
DeLBo_F_1	24	1.000	Professional	Italian	Main	12	360	Occasional employment (independent contractor)
DeLBo_F_2	26	N/A	Bachelor	Italian	Secondary	24	40	Occasional employment (independent contractor)
DeLBoM1	27	900	Bachelor	Italian	Secondary	36	100	Occasional employment (independent contractor)
DeLBo_M_2	27	400	Master's Degree	Italian	Secondary	24	80	Occasional employment (independent contractor)
DeLBo_M_3	26	N/A	Bachelor	Italian	Secondary	12	60	Occasional employment (independent contractor)
DeLBo_M_4	31	N/A	Master's Degree	Italian	Secondary	18	120	Occasional employment (independent contractor)

(continued)

Table 2 (continued)

Name	Age	Average income	Education	Nationality	Income source	Platform working experience (months)	Average working hours (monthly)	Employment relations
DeL_Bo_M_5	21	N/A	Secondary	Italian	Secondary	1	N/A	Occasional employment (independent contractor)
DeL_Bo_M_6	24	400	Bachelor	Italian	Secondary	12	80	Occasional employment (independent contractor)
DeL_Bo_M_7	26	500	Bachelor	Italian	Secondary	18	80	Occasional employment (independent contractor)
DeL_Bo_M_8	20	800	Secondary	Italian	Secondary	24	80	Occasional employment (independent contractor)
DeL_Bo_M_9	N/A	1,400	Professional	Pakistani	Primary	N/A	N/A	Registered self-employed (P.IVA)
DeL_Bo_M_10	N/A	600	N/A	Pakistani	Primary	N/A	N/A	Registered self-employed (P.IVA)

(continued)

**Table 2** (continued)

Name	Age	Average income	Education	Nationality	Income source	Platform working experience (months)	Average working hours (monthly)	Employment relations
DeIBoMil	N/A	N/A	Professional	Pakistani	Primary	N/A	N/A	Registered self-employed (P.IVA)
DeI_Bo_M_12	22	N/A	Bachelor	Italian	Secondary	36	90	Occasional employment (independent contractor)

**Table 3** Table of interviews for Uber (Lisbon)

Name	Age	Average income	Education	Nationality	Income source	Platform working experience (in months)	Average working hours (monthly)	Employment relations
Uber_M_Li_1	34	2.000	N/A	Portugues	Multitapping	30	240	TVDE owner
Uber_F_Li_2	N/A	800	N/A	Brazilian	N/A	N/A	160	TVDE employee
Uber_M_Li_3	N/A	800	N/A	Portugues	Multitapping	36	200	TVDE owner
Uber_M_Li_4	51	1500	N/A	Portogues	Multitapping and outside platform	N/A	180	Freelance/self employed
Uber_M_Li_5	39	N/A	N/A	Brazilian	Multitapping and outside platform	12	180	Freelance/self employed
Uber_M_Li_6	N/A	N/A	N/A	Brazilian	Multitapping	N/A	N/A	TVDE employee
Uber_M_Li_7	N/A	N/A	N/A	Brazilian	N/A	N/A	600	TVDE employee
Uber_M_Li_8	N/A	N/A	N/A	Portugues	Outside digital platforms	48	N/A	TVDE owner
Uber_M_Li_9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Uber_M_Li_10	40	1000	10 ano	Portugues/Soto mean	NO	36	200	TVDE employee
Uber_M_Li_11	42	N/A	Bachelor	Portugues	N/A	45	N/A	TVDE owner
Uber_M_Li_12	45	600 (post-covid)	N/A	Portugues	No	36	200	TVDE owner
Uber_M_Li_13	44	N/A	Bachelor	Portugues	Both outside and on other digital platforms	36	N/A	TVDE owner

(continued)

**Table 3** (continued)

Name	Age	Average income	Education	Nationality	Income source	Platform working experience (in months)	Average working hours (monthly)	Employment relations
Uber_M_Li_14	28	N/A	Bachelor	Portugues	Both outside and on other digital platfbrms	14	240	TVDE owner
Uber_M_Li_L_5	38	N/A	Bachelor	Purtugues	On other similar platfbrms	54	N/A	TVDE owner



you can't do if you work in a restaurant for example" (Del\_Bo\_M\_5)». To form their *fleet*—as the workforce is named in the platform language—they also initially provided an hourly wage «of nearly 7 euros per hour, but since there were very few orders, if you were lucky by not receiving orders you could also take them without setting a foot outside the house» (Del\_Bo\_M\_2). A common opinion among long-lasting riders is that things have also changed quite a lot in these years in terms of salary, shift-duration, the distance of the delivery, the functioning of the bonus rewarding system, the time spent waiting in front of restaurant increased and, finally, the composition of the workforce, with migrant workers gradually taking the place of students. Working conditions seem to have worsened in relation to the expansion of Deliveroo in the city, incorporating new customers and restaurants to serve on one hand and reducing payment to workers on the other. More specifically, after introducing a bonus for each delivery, gradually the hourly wage disappeared in favour of a piecework payment system: «Initially they were not paying badly, it is after they started to dominate the city that things became unsustainable» (Del\_Bo\_M\_2). From the workers' perspective then, the expansion of Deliveroo in the city did not correspond to better working conditions, but impoverished their wages and intensified the labour process. For example, by extending the delivery distance—initially limited to the city centre and now reaching the suburbs of the city—and expanding working shifts that have reached most of the day. The complications of the expansion of Deliveroo have also been stressed by women workers, who in many cases face the difficulty of biking in the middle of the night on unsafe streets: «I prefer to avoid deliveries when I see they are too far or in places of the city I don't like. Even if they are paid well, I don't care, I don't want to take the risk of delivering the pizza to someone living on the other side of the moon» (Del\_Bo\_F\_2).

However, a crucial breaking point in the worsening of rider conditions has been the signing of a collective agreement between Deliveroo and the far-right union *UGL-Rider*. Paradoxically, this agreement was the attempt to circumvent the effects of the «Rider Law»—L. 128/2019 approved by the Italian parliament in November 2019—whose intent was that of promoting collective bargaining allowing the possibility to downsize working conditions. The network *RiderXiDiritti*—including both traditional and informal unions operating in the Italian food delivery sector—has accused this agreement to maintain the status quo, especially the self-employment status of workers and the piecework payment system, keep worsening wages and working conditions. Significantly, the initiative of the national government was influenced by the approval by the city council of Bologna of the *Bill of Rights of Digital Workers in Urban Context* (Bologna City Council, 2019). This has been one of the first agreements in this sector and emerged at local level with the city administration favouring a dialogue between Riders Union Bologna and the local delivery platform *Sgnam*. Nonetheless, its normative implementation was quite ineffective and only applied to those voluntarily signing the bill, therefore it did not apply to Deliveroo that never agreed to the initiative. Despite this, it had a great impact in making riders' demand visible, ensuring a wide media coverage and attracting the interest of national policymakers.

Nonetheless, the agreement did not simply maintain the status quo, but allowed Deliveroo to intensify its extractive tendencies. On the workers' side, this corresponded to even more intense and continuous performances and to an increase of platform demands. This is the case of a set of skills that have interestingly emerged only after excavating their working experiences. In almost all cases, riders perceive their work as «mechanical» (Del\_Bo\_M\_8), requiring «any particular skills» (Del\_Bo\_M\_11) which can be done by «almost everyone» (Del\_Bo\_M\_3) or at least by all those «having a smartphone and a bike» (Del\_Bo\_M\_11). It is just after excavating the interviews that have emerged the amount of (informal) skills demanded by the platform. For example, the knowledge of the city—the safest streets to take or the restaurants to avoid because they are usually very busy—how to repair a bike in case of an injury; or how to deal with customers and restaurants to avoid the risk of being fired: «If you have a problem, they provide very little support. You have a chat, but it is you who must deal with the customer or with the restaurant» (Del\_Bo\_M\_1).

The intensification of extractive processes not only regarded workers' skills, but also their “capital” investments. In the case of Deliveroo this has regarded new and more efficient bikes, such as the electric bikes that have increasingly become common among Bologna's riders: «if you see many of us all have electric bikes. It is necessary if you want to work 8–9 or more hours per day like we do» (Del\_Bo\_M\_10). The high competitiveness among Deliveroo riders makes the electric bike a necessity to maintain the *reputation* that—especially those more continuously operating—they have built. This means platform demands are even more significant for those relying the most on platform income, such as the migrant workforce. Furthermore, electric bikes are quite expensive, and for this reason: «we borrow money from friends, other Pakistani workers here. Even if they steal a bike, the only way to get it is to ask a friend and pay them back after delivering» (Del\_Bo\_M\_11). This fragment clearly addresses how the extractivity platforms are responsible for is not strictly limited to labour exploitation but involve a wider range of social cooperation.

Another major change occurred in the Deliveroo labour process, however, was the introduction of the *free login*. This means that, similarly for what happens in Uber, riders can log in at weather time without having to respect a specific working shift. According to Deliveroo's explanation, this was due to technical reasons, as the *fleet* was significantly grown. However, looking at these changes simply as a matter of technical needs means having a very static view of capitalist development. The introduction of *free login* has also allowed Deliveroo to escape the risk of misclassification of their workers. The previous model for organising working shifts has often been taken as an indicator for labour courts to recognise riders as subordinated workers. It is not a case then if—similarly to what we have already seen in cities like London, Paris and Barcelona (Pirone et al., 2020)—this innovation came during the pandemic lock-down, making use of their position to remove one of the most evident indicators of subordination. This means that not only law-making institutions are those mattering, but a key role is also played by labour courts.

Interestingly, the introduction of *free login* has mostly been contested by those riders supporting the self-employment status. According to them, the previous model was a more meritocratic system: «I see that not all of us are serious, there should be

something that motivates you [...] for example when I see someone who is reaching the restaurant before me, I bike a bit faster to reach first and click on the smartphone the task has been accomplished» (Del\_Bo\_M\_6). However, it needs to also be considered how the competitiveness in Deliveroo is not only the result of the ranking system, but also of the *dynamic fee* determining their payment. This consists in providing a piecework payment system that is not based anymore on a standard amount per delivery, but it is determined by an algorithm considering factors such as delivery rapidity or distance. For riders this means they «don't know how much we will be paid when we get the delivery» (Del\_Bo\_F\_2) and requires workers to get confidence with this payment system before understanding how to properly behave:

«It is fundamental nowadays to know the kind of orders you need to accept and those it is better you refuse. For example, avoiding those restaurants that make you wait ages to take the delivery. In those cases, you may get 10€ or 20€ for a night shift which is pointless» (Del\_Bo\_M\_7).

While the *free login* means that the ranking system does not influence their working shift as it used to be, this remains relevant in the labour process. Among workers there is a common understanding that ranking still influences the “quality” of the deliveries received, reserving those better paid to the most reliable workers. Moreover, Deliveroo communicates to their workers (at least some of them) the indicators determining their ranking, such as: availability (especially in the shifts that are considered busier, such as Saturday or Sunday night); reliability (those who do not respect the working shift are for example sanctioned); efficiency (average delivering time). Considering these three components, it is evident how flexibility is seriously undermined. As Del\_Bo\_F\_2 argues during her interview:

«You need to work all weekends. Right now there are also many people, so if you skip one of them you may not get enough shifts or order to a decent pay the week after. This is why when I go to visit my boyfriend in Rimini – a city in the Emilia-Romagna coast – I keep delivering [...] they say you are free to do whatever you want... but then you also have to pay the consequences for your choice» (Del\_Bo\_F\_1).

At the same time, those who are listed below in their ranking often end up shifting to another platform. In the case of Bologna, the number of Riders who pass from Deliveroo to Glovo or Uber Eats is perceived by workers to be very high. The motivation is that it is much easier to start from scratch than trying to recover your ranking:

«Last summer I decided to go for a trip with my bike from Bologna to Sicily and so I needed some money. So I went back to Deliveroo in May and June, but my statistics were very low since it was a while since I was not delivering and I had no shifts, no orders. In short, only with Deliveroo I could not gain enough money for my plan» (Del\_Bo\_M\_8).

Despite this case, another change perceived in riders' behaviour has also been the decrease of *multi-apping* practices. With this we mean the possibility for riders to deliver for multiple platforms at the same time, somehow taking advantage of their position as self-employed. «No one does it anymore. Right now it means that you have to refuse too many orders because you are already delivering for a platform. The risk

is that you have a very low ranking in both platforms and this means you are screwed» (Del\_Bo\_M\_1). However, this also means that the composition of the workforce has drastically changed in the last years according to the transformation of the labour process. Those more discontinuous, refusing orders, being too conflictual (as it was for most students) or, more simply, have found a better alternative, are now only rarely present in Deliveroo. This has followed labour process transformations, selecting a workforce more suitable for continuous delivery because it is more blackmailable:

«one aspect I would like to stress is that I have a wife and I have family back home. I need money, I spend for rent here as well. I need to support my family. So, I work as much as possible, 7 days a week without any break. I work in the afternoon then I go home for 2/2.5 hours and then back at 6 or 7 to work in Neptune Square and I start working again until 23 or midnight» (Del\_Bo\_M\_9).

## 5 Intermediary Platform Capitalism: The Case of Uber in Lisbon

Uber started its operations in Portugal in 2014 and during the years it greatly expanded in the main cities, particularly in Lisbon, establishing itself as a dominant player in the urban mobility sector. The growing integration of Uber in Portugal is effectively revealed by the expression used by Giovanni Esposito (the Uber's former general manager southern Europe) to define the lusophone country: a «gold model», since—according to Uber's narrative—Portugal has been representing a market with a fair regulation for all the actors involved (drivers, customers, digital platforms, etc.). Since 2014, Uber drivers' fleet has increased exponentially, rising issues (as for other countries in Europe and the USA) relative to the unfair competition with the traditional taxi sector. An issue that has also happened in Italy, where protests from taxi driver unions have convinced the government to forbid Uber services in the Italian context. At least, until Uber has found an agreement with local companies that, as we will further see, establish a similar mechanism to those registered in Portugal. Furthermore, Lisbon has been integrated in the global network of Uber's technological centre, where the digital platform experiments new services which will be adopted in other cities. Besides the controversies related to the unfair competition, the platformisation of urban transportation also raised questions relative to several working-related dimensions, such as labour process, skills, and employment relationship.

The evolution of the urban transportation digital services during the years and the emerging working-related controversies pushed towards the creation of a specific normative setting in 2018: the Law 45/2018 (so-called *Lei da Uber*) enacted by Portuguese Parliament, a top-down regulation aimed to address the operations of digital platforms in the ride-hailing sector. It represented one of the first attempts in EU to regulate the platform economy, formalising the platformised urban transportation service as TVDE (*transporte individual e remunerado de passageiros em veículos descaracterizados a partir de plataforma eletrónica*). In a nutshell, a major

novelty introduced by the *Uber law* concerned the formalisation of a third actor acting as intermediary between TVDE digital platforms and TVDE drivers, namely the TVDE partner-companies (Table 4). However, the Law did not intervene specifically on the labour process organisation, employment status and labour protection since it delegated these issues to the already existing Labour Code. Instead, the *Uber law* has set up a general regime of operations of the TVDE actors, establishing several rules to be accomplished to work in the ride-hailing sector. Among the innovations provided by the law, four changes in labour process deserve particular attention for their implication: the introduction of a maximum limit of ten hours of connection to the application, within a twenty-four-hour period; a paid mandatory training course that drivers who want to work in this sector must attend; the obligation of a clean criminal record; the formalisation of the TVDE partner-company as intermediary actor between digital platforms and drivers, which are in charge of fulfilling social security and labour rights duties, since the driver enters into a working contract with them. These transformations also severely limit the possibility to autonomously organise through *free login*. Drivers employed in TVDE partner-companies, in fact, need to respect the agreement taken with the company, which often also regulates working shifts. Moreover, the provision of a maximum number of hours is not matched by a clear mechanism for monitoring and evaluating compliance with the limit. Thus, although the law provides for a minimum hourly wage for the service provider, it does not specify the amount. This definitional vagueness has led, in the concrete articulation of the work performance, to the non-compliance with the hourly ceiling, especially due to the decreasing profitability for TVDE drivers.<sup>3</sup> The introduction of the paid mandatory training course and the clean criminal record represent a novelty that creates an entry barrier that may affect more marginalised people, who might not have the economic resources to attend the course.

According to the study of the AMT,<sup>4</sup> the most widespread working relationship is the *autonomous* one (“*recibo verde*” formula), therefore with a low level of social protection and a trend towards *micro-entrepreneurship*. The peculiar threefold relationship between digital platforms-partner companies-drivers relevantly affects the labour process in that seems to create a hierarchy of platform work, as freelance or self-employed drivers (not owner of TVDE partner-company) experience a condition of *double dependence*: (i) from the algorithmic management of the platform and (ii) from the partner company. As a matter of fact, this latter can set minimum targets to be achieved, the time slots to be allocated to drivers, the fee (generally between 40 and 60%) to be deducted from each driver’s earnings. Moreover, the algorithmic management in the Portuguese case takes a peculiar form, due to the status and role of TVDE partner-companies. We can say that this management takes place on two levels: the evaluation of the driver through the ‘star rating’ system in the Uber app,

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<sup>3</sup> For more details about the controversies related to the Law 45/2018, see Amado and Moreira (2019).

<sup>4</sup> AMT is the acronym of *Autoridade da Mobilidade e dos Transportes* (Transport and Mobility Authority), the regulatory and supervisory body for the transport sector in Portugal. The study is available at: [https://www.amt-autoridade.pt/media/3455/parecer\\_19\\_gaj\\_dapp\\_10fev\\_imt.pdf](https://www.amt-autoridade.pt/media/3455/parecer_19_gaj_dapp_10fev_imt.pdf). Accessed: 15/01/2023.

**Table 4** List of TVDE digital platforms

Company name	App	License	Data
Bolt Support Services PT, unipessoal, Lda	Bolt	19/20 IS	27/12/2018
Uber BY -representação permanente em Portugal	Uber	42/2019	25/01/2019
Its my ride, Lde	Its my ride	107/2019	14/03/2019
Uteis and razoáveis, unipessoal, Lda	Vemja	114/2019	05/04/2019
Magnetikmolecule, Lda	Tazzi	144/2020	14/02/2020
Freenow Portugal unipessoal, Lda	Freenow	151/2020	02/06/2020
JDSM, unipessoal, Lda	Chofer	169/2020	15/10/2020
Klibber, Lda	libber	171/2021	14/01/2021
Rotas e peripécias—unipessoal, Lda	Mobiz	189/2021	14/06/2021
Tarine technology, Lda	Tarine	193/2021	19/07/2021
IXAT—ridesharing, Lda	Ixat	19/07/2021	08/03/2022
Move by leb, Lda	Leb	2011/2022	23/03/2022
Let's go move mobilidade urbana Lda	Let's go move	226/2022	11/04/2022

Source <https://www.imt-ip.pt/sites/IMTT/Portugues/Documents/TVDE-OperadoresPlataforma-ListaSite.pdf>

whereby customers rate the ride (and therefore the driver) on the basis of a rating between one and five stars; the management and control of the work and of the car fleet by the partner-companies through their specific apps. So, despite the initial positive potential regarding the proposal of a normative framework actually addressing the platform economy, during the years emerged a quite different situation. These controversies have been framed by scholars as *intermediary platform capitalism* (Allegretti et al., 2021), in order to emphasise the threefold relationships between digital platform—partner companies—drivers: this peculiar contractual chain actually confirmed the discharging of responsibilities by digital platforms, such as Uber and Bolt, regarding labour law and social security.

Based on our field analysis emerged that, instead of improving the conditions of workers in the ride-hailing sector, the *Uber Law* has indeed crystallised the degrading conditions existing in other contexts. Moreover, a pivotal difference between partner-companies and drivers is that the former are provided with a different version of digital platforms' app that allows partner-company to have an exclusive communication channel with digital platforms. The app aimed at managerial control of drivers and car fleet and, through it, partner-companies can verify the status of drivers' licence, drivers' TVDE certificate, criminal records and the car's documentation. The working relationship can be either employee or self-employed/freelance. The interviews bring out the following situation:

«You can work at UBER [TVDE sector] in two ways. Or you work for yourself, you open a company, you buy a car. Or you can work as a partner. The partner often makes a person work for me, is registered in my company with everything right, with social security, employment

contract. So, this person, in my case, he/she wins 50% and I win 50%. So it's not hard to work for UBER, no. As long as you have the documentation, it's all right» (Uber\_M\_Li\_5)

This means that the new regulation has made Uber's workforce particularly variegated. In the case of autonomous drivers not owner of a partner-company, the contractual conditions are based on negotiation with a TVDE partner-company; thus, there is not a standard solution but it varies depending on each case: «So this company works with two modalities. The first modality, which is where I thought I wasn't going to have a boss and come up with a risk business, is this: it retains 53% of your earnings, and requires you a weekly turnover of 600 euros, and 66 h online» (Uber\_M\_Li\_7). Another possibility for drivers to work is to start his own partner-company. In this case, he has two options regarding the working tools: to buy the car fleet taking charge of all proper costs (insurance, maintenance etc.), or to rent them:

«The App is free. But for you to have access to the App you need to have the company, right? (...) You need an organized accounting, which is a monthly cost, don't you? You must have insurance.... You can't start the activity without spending 2,000 euros. There's no way, and I'm already going for the cheapest. Without buying a car you have to make a rental; you have to pay at least the two instalments of the rental. The renting already has the insurance, will save that money, but then you have to open the company, the accounting, the license of the company to work, and the driver's licence, right? In my case, my drivers, I paid for the training» (Uber\_M\_Li\_8).

Within the TVDE ride-hailing ecosystem, TVDE drivers can connect simultaneously to any digital platform to work, without therefore inserting pre-emption constraints on the part of the platforms. It thus becomes possible for drivers to access multiple windows on the same market, thus reducing waiting times between rides. This phenomenon—that can be registered across the different platforms—has been defined *multi-apping* and, in the case of Uber in Lisbon, it is interesting to highlight how it is common among both freelancer drivers and TVDE partner companies. According to the literature, the non-binding nature of the relationship between drivers/partner-companies and Uber or other digital platforms has been used «as proof of the 'real self-employment nature' of the contractual relations between a provider and its drivers» (Allegretti et al., p. 89). But the supposed self-employment conditions must be questioned observing the concrete articulation of the labour process and of the work execution and the range of potential gain. For example, from the interviews emerged quite clearly how the burden of the costs may induce to not freely choose how much time to spend to work:

«I started with a rent of 612 euros, an insurance of 2100 euros annually, then I have the mandatory insurance for TVDE, I have my salary, I have my social security, I have an accountant. All this is around 1800 euros, with only one car, monthly. If you split 1800 euros for 22 days monthly, assuming you only want to work 5 days a week, we are talking about having to make almost 100 euros a day, not counting on the diesel that you spend to do so. It is very complicated these days to make 100 euros with only one car. When you increase your fleet you do not increase proportionally because you are only adding car and insurance and then dividing by each car all other expenses... company insurance, your salary, social security» (Uber\_M\_Li\_14).

However, other drivers highlighted the flexibility afforded by working in this sector:

«Positives [characteristics] are enough, because it gives me freedom. For example, I am here, when I leave here, I grab the mobile, if I want to start working from this point I find myself and I let myself take where I want and then use the tools that the platforms give us, filter, to look only for trips to the area I want to go. For example, if I want to go from here to Mafra, I'll just take trips that way» (Uber\_M\_Li\_1).

The Covid-19 pandemic provided a lens to investigate the flexibility of platform economy, as restrictive measures inevitably affected urban transportation digital platforms. Despite the limitation to urban mobility, their formal *lightness* allowed them to modify and extend the services offered. For example, Uber Portugal during the *lock-down* introduced—on an experimental basis and for a short time—the Uber Drop-Off service, i.e. the possibility of collection and delivery of essential goods, thus connecting supermarkets with the final consumer. It was, however, a B2B (Business to Business) service and not B2C (Business to Consumer), as it was the supermarkets that connected with the app to request the delivery of groceries to a customer's home. This Portuguese experiment—for which the drivers also played the role of porters—was then formalised into the UberConnect service, a service by which users can send and receive packages via the app.

If on one hand the irruption of the pandemic pushed Uber and the other digital platforms to expand the portfolio of services provided to *survive*, on the other hand worsened the issue of costs burdened by TVDE partner-companies and drivers. In other words, the already falling profitability rate of this sector has been incremented by the Covid-19 pandemic. For example,

«All the money I earn is going to pay the debts. I have a 293€ instalment of the car, 213€ of insurance because I paid monthly, and meanwhile the virus came and only worsened. Then, I have social security that are another 244 €, then I have the accountant who are another 160 €, then I have Vodafone that are over 60 and such, I mean, what I earn is to be paying this» (Uber\_Li\_M\_12).

Thus, the pandemic determined an acceleration of the contradictions of the TVDE sector along the entire value and contractual chain, involving each actor in the ground, but affecting particularly drivers and partner-companies. These contradictions contributed to the activation of mobilisations and protests, resulting in the paralysation of the activity, with a fundamental role played by the main transport union FECTRANS/STRUP. The mobilisation phase was successful since the Portuguese Parliament started a debate to amend the *Uber Law*, resulted in the “*Livro verde do trabalho*” (Green Paper on Work), aimed at including a proper definition of platform worker and evaluating the actual role of digital platforms. In this regard, the AMT indicated some elements that allow framing the TVDE work as a *de facto* wage-earner work,<sup>5</sup> such as: the effective control over the business model and the transport operation, unilaterally determining the rates and types of services; a system

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<sup>5</sup> For more details, see: Leonardi and Pirina (2020), Tomassoni and Pirina (2021), Allegretti et al. (2021).



for evaluating the performances; and the existence of a system of rewards and sanctions. The debate that occurred in the past two years determined several amendments to the article 12 of the Portuguese Labour Code about the presumption of employment relationship, that were accepted in December 2022. Among the topical elements introduced there is the fact that, in case the Labour Court detects the presence of an employment relationship, this one will be established directly between drivers and digital platforms.<sup>6</sup>

## 6 Final Remarks

In this chapter we have shown how platformisation, despite being a global phenomenon, does not apply everywhere in the same way but tends to produce uneven developments. Digital platforms are often described as a way in which capitalism is soaring, employing digital technologies and financial capitals to overcome social and political limits. Here we tried to demonstrate how they actually keep hitting the ground, adapting to local specificities that influence their developments. In a few words, platformisation is not the Hegelian spirit of history, is not about flattening the world or erasing local specificities or undermining the efficacy of institutions, institutions still matter and are able to address the evolutionary patterns of platform capitalism. At the same time, the national varieties that have dominated the debate during the 90 s do not provide adequate lens to understand the complex dynamics of platformisation. On one hand this is because institutions mean a more articulated dimension including cities, provinces or neighbourhoods, and a more nuanced view that also include workers mobilisation or urban alliances; on the other they are not simply resisting to global change, they are directly involved in processes that do not have clear borders. This ambivalence is what lies behind the “variegated platform capitalism”, a view where local and global, urban and transurban factors co-participate in defining a co-evolutionary pattern of development. The result is then a striped and uneven scenario where borders and trajectories of platform capitalism developments are continuously influenced by the intervention of both social and political actors.

Platform labour process clearly presents this feature. On one hand this presents common logics of exploitation across the different sectors and contexts. Few examples can be the use of a ranking system to establish processes of labour intensification, the use of self-employment status to avoid labour regulation or the ability to extract value from the data social actors produce while operating. At the same time, on the other hand, the degree of control, the spread of misbehaviour practices or the composition of the workforce vary according to the specificities of the context in which they operate. More specifically, the more the platform has penetrated in the

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<sup>6</sup> The norm will come into force from April 2023. For further details, see: <https://www.jornaldenegocios.pt/economia/emprego/lei-laboral/detalhe/plataformas-digitais-deputados-aprovam-presuncao-de-contratos-de-trabalho-e-incluem-tvde>. Accessed: 15/01/2023.

city, which means it has involved a number of actors in their operating network, the more able it is to control labour processes, to influence individual behaviours and to organise social cooperation in the city. To reach this rent position, however, it is necessary to overcome legal obstacles or to adapt to local specificities such as the urban structure or the local economic scenario. In a nutshell, platforms' variegation is what gives them the ability to both define operating standards at global level and to adapt their strategy of development to the specificities of local context. The most clear example of this is Uber, who operate in a sector much more regulated than that of food delivery, with established industrial relations and a more solid union representation. These institutional factors are what make Uber the most adapting platform we have explored, an ability resulting in the development of a more articulated organisational model such as that we have seen for Lisbon.

Another key point of the variegated platform hypothesis is that local and global factors do not stand on their own, but mutually influence themselves. This means that the strategies platforms develop in local context under specific circumstances may still hold a transurban potential. This is the case of Deliveroo which unsurprisingly is also the most contested platform by workers. The introduction of free login at continental level, more than just an adaptation to local specificities, corresponds to a longer term anti-union strategy that is finalised to undermine workers mobilisation. However, the fact that Bologna has been one of the first cities where this was experimented—due to the result achieved by the mobilisation of workers—did not impede free login to expand at European level. This means that in platform capitalism dynamics are more complex than a simple local resistance to global path of change, but an outcome workers may obtain in a single context may easily become a global path of change.

This is finally a key point of the variegation hypothesis. Differently from the critique the variety of capitalism tradition has brought to 90 s neoliberal globalisation, the variegated hypothesis opens space to new battlegrounds and to new social actors. A key example comes from the different approaches to regulation we have seen in Lisbon and Bologna: in the first case platform economy companies establish a *good dialogue* with political authorities, that see this economy as a driver of development; in the second case the concrete impacts on social and economic dimensions have been circumvented by the behaviour of Deliveroo. From another perspective, we may say that while the Italian regulation emerged from below, which is from the initiative of local union and city administrations, Law 45/2018 has been a result of a top-down normative path conducted by the Portuguese central government. However, what is key to be noticed is how these *adaptations* never remain localised, but emerged as Transurban factors generally influencing the functioning of algorithms. This means that they are still embedded in social dynamics that can be influenced not only by national governments or traditional actors, but also by grassroots and innovative regulational experiences. In this view, the variegated approach is able to provide not only the lens to read the uneven development of platform capitalism, but also the necessary tool to intervene on its most predatory consequences.

We then encourage further research in this direction, meaning looking at the relationship between global and local factors in a more nuanced way. Firstly, this means

investigating co-evolutive factors beyond traditional borders of the nation-state or of economic sectors. This means taking seriously the ability of platform capitalism to continuously redesign borders between local and global, virtual and real, formal and informal, by focussing on those processes that are able to re-assemble such dimensions. This means that secondly—but not less importantly—further study in this perspective needs to expand their view to the role played by non-conventional (such as informal unions or grassroots urban movements). Their mobilisations have in fact revealed the relevance of both institutional and non-institutional actors, motivating us to pay attention to the co-constitutive dynamics and their ability to generate the transurban vectors responsible for the *uneven* development of platform capitalism.

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# Perceiving Platform Work as Decent Work? Views Regarding Working Conditions Among Platform Taxi Drivers in Tallinn



Marge Unt, Kairit Kall, Triin Roosalu, and Liis Ojamäe

The global proliferation of neoliberalism, prioritising market primacy, privatisation, and deregulation, has impelled employers to pursue enhanced labour flexibility (Kalleberg, 2009). Over recent decades, post-Fordist organisations have increasingly adopted flexible employment practices, such as outsourcing and temporary contracts (Vallas & Schor, 2020). Factors driving the expansion of precarious work are unlikely to wane under the prevailing paradigm of free-market globalisation (Kalleberg, 2009). Globalisation has introduced complexity, interconnectedness, and uncertainty, exemplifying the intricate interdependence of individual lives and distant decisions (Colombo & Reburghini, 2019). This is well exemplified by platform work, where multinational platforms like Uber set working conditions that have overarching effects on whole sectors around the world. Consequently, social process analyses necessitate an enhanced consideration of the local subjectivities of agents.

This chapter scrutinises the perspectives of Tallinn-based platform taxi drivers on their work, utilising the *decent work* concept as an analytical framework to capture various work dimensions. Previous discussions on platform work have only selectively considered aspects of the *decent work* approach. We draw from precarity theories (Betti, 2018; Kalleberg, 2009), emphasising polyvalent roles, workforce fragmentation, and risk-shifting. In accordance with the International Labour Organisation's (ILO) Decent Work Agenda, we aim for a cohesive view addressing all three pillars: providing full and productive employment while ensuring social protection; upholding standards and fundamental rights at work; and fostering social dialogue. We examine platform taxi drivers' perceptions of work realities and desired working conditions, and our central research question is: in what ways do workers view their working conditions and how does their perspective align with the principles of decent work?

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Technological transformations in the employment sphere do not diminish the need for and entitlement to decent work. Do these principles also apply to platform work? In 2017, the ILO's Global Commission on the Future of Work addressed job quality in the platform economy (ILO, 2018a, 2018b), asserting the applicability of the principles of decent work to digital platform workers. Indeed, several analyses have already deemed platform work indecent work (e.g. Christie, 2022; Dukes & Streeck, 2021; Purcell & Garcia, 2021). The ILO Framework Work Indicators consist of ten elements, each linked to one or two of the following three main pillars (ILO, n.d.a, n.d.b):

- A. Full productive employment, as reflected in indicators addressing employment opportunities, work stability and security, and equal opportunity and treatment.
- B. Social protection, encompassing working time, pay and benefits, and safety at work.
- C. Promoting social dialogue, involving evaluating the extent and coverage of social dialogue and the representation of employers and workers.

As platform work potentially embodies the future of work, its experiences inform innovative practices, particularly time and place flexibility and algorithmic management. Examining the experiences of Estonian platform workers and their reflections on aspects of *decent work* holds significance for the country's future work landscape and understanding the implications of platformization in general. Regarding platform work, we see that the main social challenges in Estonia are: ensuring that digital platform workers, irrespective of contract type, can anticipate decent working conditions, and simultaneously, preventing the potential innovative benefits of digital platforms from inadvertently reducing existing standards of respectable employment. A 2021 European Commission policy initiative aims to protect platform workers' rights by providing a list of criteria that enable to determine if the platform qualifies as an employer, and in that case making platforms responsible for guaranteeing employment rights for workers (Proposal for a Directive of the European Parliament & of The Council on improving working conditions in platform work, 2021). In Estonia, debates around the directive intersect with calls for relaxed employer requirements. Employer representatives advocate for flexibility, suggesting the directive could be harmful (Eesti Töandjate Keskkliit, n.d.; Pisuke, 2022). The government seeks to balance business and worker interests (Sotsiaalministeerium, 2021), while think tanks explore independent contractor models (Erikson & Rosin, 2018). Trade unions, which do not yet represent platform workers, prefer equal conditions for all, proposing to extend the concept of employees and securing all workers a minimum level of rights (Holts, 2022).

## 1 Estonian Context

The Estonian state authorities and society have largely accepted platforms as service providers, not employers, exhibiting a liberal stance on the employment status of platform workers. The mid-2010s saw digital platforms infiltrate Tallinn's taxi industry, with the Estonian Taxify (now Bolt) and Uber emerging as major players. Pre-existing taxi apps never attained comparable success. In 2017, Bolt held the second-largest revenue among Estonian taxi companies (Kranich, 2018), while in 2019, 33% of internet users aged 16–74 argued they have used websites/apps to arrange a transport service (Statistics Estonia, 2023).

It is important to underline that Tallinn's taxi industry was already rather loosely regulated before the emergence of taxi platforms, and experienced further deregulation due to the impact of platform work (see details Kall et al., 2021). Contrary to many European cities, Estonia displays minimal collective organisation against platforms and lacks worker cooperatives or community-owned platforms. The nation's market-liberal, techno-optimist context aligns with its technologically progressive reputation in information technology (IT) and e-services. Consequently, platform work in Estonia is often celebrated with neoliberal, techno-optimistic views, and the Estonian-based Bolt is hailed as an Estonian economic success story (Sükijainen, 2019).

Estonia has opted for a neoliberal approach since the early 1990s (Saar, 2011). Therefore, Estonia's social welfare spending has been relatively low between 2005 and 2021 compared to the EU28 average. European Union membership has among other factors enforced a consideration of social welfare issues and empowered the otherwise weak voice of trade unions. Therefore, there has been a rapid increase in the minimum salary between 2005 and 2023, but it still lags behind most EU countries (Eurostat, 2023a, 2023b).

Navigating the complexities of social insurance within Estonia's platform work landscape can be challenging; a fact that becomes evident as we delve into the realities of maintaining coverage, the constraints of contract options, and the lack of transparency in data exchange between platforms and state authorities.

Social insurance coverage in Estonia is dependent on continuous payments of social tax above a certain threshold, which poses a challenge for platform workers with fluctuating incomes who might struggle to maintain coverage. Employment contracts provide insurance coverage for employees, even if employed part-time. Social protection can also be achieved via a contract under the law of obligations, but only if the income and related taxes are above a threshold and continuous. Typically, platforms do not offer employment contracts or even those provided by the law of obligations. Platforms like Uber do not assume responsibility for the welfare and social protection of their taxi drivers. Consequently, platform workers must take active steps to pay their social taxes and health insurance, be eligible for pension accumulations, and so on, either as individuals, self-employed, or through another (non-platform) company. While there are more options for obtaining social insurance,

only those opting for employment or service contracts qualify for unemployment insurance benefits. Platforms and state authorities in Estonia have cooperated to simplify the tax declarations for platform earnings. However, as there is no data exchange between platforms and state authorities on the earnings of taxi drivers, there is no overview of the different options used by platform taxi drivers nor on how many of them lack any social insurance (see details of different employment relations and associated social protection rights in Kall et al., 2021).

## 2 Methodology

We analyse the perspectives of platform taxi drivers on the basis of qualitative in-depth interviews with the workers. The individual interviews (15) were conducted between November 2019 and March 2020. To gain an understanding of the workers' experiences during the pandemic, we also conducted a focus group interview in November 2020. This comprised four participants, representing 2 types of platforms (Uber/Bolt and Airbnb). All participants had experienced platform work before the pandemic as well as during the pandemic.

Although the PLUS project focused on Uber drivers, in Tallinn most of the interviewees also used other taxi platforms, thereby enabling us to gain a wider perspective of platform taxi drivers. To recruit the interviewees, a combination of strategies was used such as purposeful riding with Uber taxis in Tallinn, and public calls in the Uber drivers' Facebook groups and among students at Tallinn University. The snowball technique was also applied among already interviewed individuals to contact their acquaintances. The aim was to have a diverse sample regarding age, gender, nationality (mother tongue), education level, experience of driving a traditional taxi, and work situation. When considering age, experience of driving a traditional taxi, and work situation, the final pool of interviewees was rather diverse; there is over-representation in the final sample of men (13 out of 15), people with higher education (10 out of 15) and Estonians (11 out of 15) (see also Table 1).

The age ranged from 24–66 years. No respondents had one single taxi platform as their only source of income, most of them combined multiple taxi platforms or used Uber as an additional income source. The number of hours worked for Uber ranged considerably (from 3 to 70 per week), but not all could make a clear separation between working for Uber and for other platforms. We can assume that the self-selection of the study made it more likely that nearly all the study participants were from the dominant social group (male, Estonian speakers), who might have been in a more advantaged group among drivers, as they could afford the time to be interviewed. We succeeded in interviewing Estonian-Russians and new immigrants, but it is possible that we still missed enough interviews to cover the whole spectrum of different social groups, especially those who do not speak either Estonian, Russian, or English.

The main topics covered during the interviews related to working conditions and labour processes, social security, and skills. The structure of the interview guide



**Table 1** Characteristics of interviewees (N = 15)

Sex	Male	13
	Female	2
Age group	Below 30	5
	30–50	7
	Over 50	3
Nationality: majority/minority	Estonian	11
	Estonian-Russian	2
	New immigrants	2
Education level	Below secondary	0
	Secondary	5
	Higher	10
Monthly working hours on all platforms	Up to 40	2
	40–100	4
	More than 100	9
Main source of income	Uber	1
	Multiple (taxi) platforms	5
	Regular employment	5
	Own company (not taxi)	3
	Pension/scholarship/other allowances	1
Basis for social security	Platform labour	1
	Other	12
	None	2

*Source* Compiled by the author

divided the discussion into three broad topics, but allowed the interviewees to freely reflect on all their perceptions and topics related to platform work that were important to them.

An inductive thematic analysis method was then applied to the collected data. It must be noted that our method is limited to allow us to focus our analysis on perceptions, elaborating how platform taxi drivers currently see and would like to see their working conditions on platforms, and how aspects of decent work are reflected in these observations.

In the following, the results are presented in three subsections, each consisting of a selection of the ILO decent work indicators that fall under: employment opportunities, work conditions, and the social dimension of working as platform driver. The analytical findings in the chapter are supported by direct quotations from the interviews.

### 3 Perceptions of Working Conditions: Earnings, Time, Safety

#### 3.1 Fair Income—Adequate Earnings and Benefits

Our research suggests that Tallinn's taxi industry—during our research rather dominated by platforms—is characterised by high-intensity competition, low prices, and widespread tax avoidance. Since platforms entered the market in the mid-2010s, the income of taxi drivers has stagnated compared to the rest of the economy. The market, however, expanded as new customer groups started using taxi services. The interviewed drivers generally argued that the taxi business as a whole is built on the lowest price offers (price dumping), and although clients could be satisfied, taxi drivers are the ones taking a hit from ever decreasing rates. Taxi apps, but also drivers (whose numbers have increased as barriers to becoming a taxi driver have decreased) compete with each other, driving down the prices. One of the interviewees with longer taxi driving experience stated:

Then when I came back [from a foreign country], I started to drive Uber and also Taxify, now Bolt. It was rather good in the beginning, but the situation has become worse and worse. There are more drivers and now the situation is really bad. This is not a job anymore. If we look at it like that, a few years ago you could say it was a real job. When you did it full-time, then you could get a decent salary after all expenses, but now you can't. You can't earn the same income working the same hours. (U\_M\_Tln\_14)

Although platform taxi drivers are not considered employees but independent contractors, they do not have any opportunities to set the price levels themselves and are at the mercy of the platforms. Some drivers also have low awareness of their actual earning potential—they do not know how to calculate whether taxi driving is beneficial, so they may be like donors to the system for some period before realising that they are actually paying for the opportunity to work—especially if we include the waiting hours in the equation.

There seemed to be a consensus among the interviewees that platform taxi service prices are too low, although occasionally bonus systems increase them to a decent level. Nevertheless, being more or less satisfied with the earning opportunities depends if platform work is a main activity or not. If platform work is seen as extra income alongside a main job, it could be seen as a good-enough addition. Furthermore, some argued that the pricing policy is not transparent; for example, sometimes the app says the price should be three times higher indicating a red colour on the map, but the rides are still offered at a lower price. A few of the respondents contacted the Uber office asking about this, but the answer was something vague, like “it depends on demand”.

As the interviewees testified, getting by in this line of work or even being successful requires being a good strategist, but also having the “right kind” of personality traits, such as being disciplined and organised. What follows is that workers can take pride in being successful in a rather insecure and tough line of work:

So I am very careful about the hours I choose to drive and the hours I choose to take a break, as well as what weekdays to work or not. The goal, you see, is to survive, somehow, until the high season that lasts from May to September. Well, this is rather a demanding period, and no-one can work all seven days of every week. So you have to understand the limit of your capabilities – when you reach that limit, what follows are accidents, and of course this would be the toughest of cases. To stay disciplined, to plan ahead is very important. Sticking to the plan, it is rather possible to make ends meet comfortably, and this is my case. (U\_M\_Tln\_15)

As we see from this quote, a specific type of driver emerges, who invests considerable time in analysing how to benefit the most: techno-savvy tax optimisers. They have developed detailed logic and strategies to make the most of the benefit systems offered by Uber, Bolt, or other platforms, trying to pinpoint the logic behind the algorithmic management by optimising their work hours and timing and also finding ways to reduce the tax load via their own small company. The main strategy for increasing the income for many interviewees was to take orders from the app that provided the best prices at that time (e.g. had peak-time coefficients or some bonuses); therefore, these strategies extended beyond a single app.

Even if the drivers highlighted the extremely low prices for their services, some of them did not express strong attitudes towards the need to regulate the market. However, sometimes the dissatisfaction with the working situation was great enough to even clash with their political ideas—either their belief in the supremacy of the free market and/or their techno-optimism, as exemplified in the next quote:

This free market and all are very good, but still we need some [regulative] framework, just normal framework, so that we could make do. Maybe raise the price? Nobody will even notice, taxis are so cheap at the moment, just impossible /.../. So, yes – let the state intervene! (U\_M\_Tln\_4)

Furthermore, even if not satisfied with the work situation, the flexibility of platform taxi driving (being your own boss) was seen by some drivers as an ultimate advantage, not least because of the perceived flexibility, problematic issues could be overlooked.

Q: Is there anything Uber could do differently to improve the working conditions of the drivers?

A: Well, look, there is no employment relationship as such. And in this sense, the platform is one example of the freedom of entrepreneurship. So you work when you want. And to have enough of the service providers on the market, this is already their [platform's] background policy, how they attract the drivers to the streets the best way. Or how to make the service more attractive for the consumers – this is already their craft. What else could they do? I do not know. I haven't really missed anything. (U\_M\_Tln\_6)

### ***3.2 Decent Working Time and Combining Work, Family, and Personal Life***

Ride-hailing companies encourage over-working, no social security or income stability for full-time hours, and promote driving as an additional job. This can

lead to dangers in traffic for all parties involved. Everyone in our sample who pays their social tax from their taxi driving income drove at least 40 h per week and in one case even 60–70 h per week. Several interviewees outlined that there are many taxi drivers who work enormously over the normal workload and that Uber is the only app on the market which requires a break after 12 h of work. However, drivers can then continue to drive using other platforms. If taxi driving is used for additional income, it can often be added on top of a full-time job or studies. In addition, taking longer breaks (holidays, vacation) means that the platform worker do not receive any compensation for these periods.

In order to secure average Estonian wages, one has to... Well, no point talking about eight hours, regular full-time! This is hopeless. Any vacation as such – only when you give up driving for a month, so you do it only at your own expense! (U\_M\_TIn\_15)

When there are bonus systems in place, this can motivate drivers to work at certain times, and might also lead to long working hours. During the period of the interviews, Uber had a bonus system (do an increasing number of rides and get a bonus), which one of the respondents summed up as a game that makes you want to work more and more, which can be dangerous (e.g. sleepy drivers driving around). Bonus systems seem to be one of the main management strategies that taxi platforms use:

Every application is trying to give some incentive, so the driver might be in a hurry, to do those things. /.../ Three days back... I was in a hurry, I wanted to complete my ride and get back to the city, because my friends said that there's a peak hour in the city. So, in a 30 [km/h] speed-limit zone I was going 50. (U\_M\_TIn\_12)

Platform service prices are generally low, but higher during peak periods. Although flexibility in terms of working time was often highlighted by the interviewees as the main advantage of this line of work, when talking about the strategies that make the work more profitable, choosing the “right time” to work is actually one of the most commonly used. As the number of clients varies considerably and in order not to wait without compensation, one has to choose specific times like nights and weekends. Another issue is the seasonality of this work, with some months being more profitable and others rather low on clients, not to mention extraordinary periods like the COVID lockdowns, where work decreased considerably.

In order to drive those nice and rich months, you also need to be there driving those lame months, and it is then when you can take time off. /.../ So, I choose my hours carefully, when to work and when to take my rest, as well as the days to work or not. (U\_M\_TIn\_15)

Nevertheless, drivers have generally internalised the flexibility discourse, even if it sometimes contradicts their practice. Furthermore, satisfaction with the work-life balance depends on how their life situation (e.g. other work or family obligations) coincides with the potential to earn via the platform. Indeed, the work schedule of the interviewees varied. While some drove during evenings and/or nights and weekends, others worked during regular working days (e.g. from 8am to 6 pm), depending on their life situation, but also the “necessities” dictated by the platforms like peak periods:

Well, if it were my main job, that would be different. Or, I think that people engaged in this line of work – for them it is maybe better that they can themselves choose the times they work. But if one has a main job elsewhere and then you think you will put in some extra hours every night, then you really won't even see your family. (U\_M\_Tln\_10)

### 3.3 *Safe Work Environment*

Platform taxi driving entails multiple inherent dangers, such as being in the traffic for long hours, dealing with difficult customers, and navigating the expectations of “greedy apps”. These are dealt with by being calm, patient, using good self-control, and ultimately, by turning down offers. There are no formal and effective regulations and practices in place that would ensure that the working environment is indeed safe. Therefore, the drivers do not encourage seeing this as “easy money”:

So, there are not many opportunities – you earn as much as you earn, and it is little anyway – but there are very many risks. Even just driving in the city at least 150 kilometres each day, this in itself is the main risk. (U\_M\_Tln\_5)

Although some drivers highlight several problems they have had with “difficult clients”, they also emphasise that with the right kind of soft skills and personality these can be overcome:

One has to be so calm, patient in the traffic as well as when communicating with the customers. The customers are different! And then you have to also be flexible; for example, when some situations require quick interventions, or sometimes there are provocations and you should not get involved. And maybe it is beneficial to just listen to the person, so you can tell them that you understand them very well, and it seems the problem is not really between you and them, but lies somewhere else entirely. Well, these more or less complicated communication situations indeed occur. (U\_M\_Tln\_3)

Feeling secure or not also depends on the kind of experiences a person has encountered. For example, a female driver felt that Uber clients are generally decent and very rarely have there been any unpleasant situations and so she is not worried. On the other hand, drivers belonging to (visually distinguishable) ethnic minorities have encountered racist incidents and one driver explained how he had to call the police when a client hit him in the head. These drivers, however, do not conclude that the jobs are inherently insecure for them, and they have no expectations that the platform should solve these problems. Taxi apps, for one, do not provide any effective forms of protection.

Another area of difficulty that can lead to mental distress that the drivers encounter is related to the surveillance and non-transparent algorithmic management the apps use. For example, one of the drivers explained how he has been put onto a blacklist because he cancelled three clients in a row as they just did not show up:

Well, the last time was just a couple of weeks ago. Completely by accident on a Friday night I had three clients via Uber: I got to the place, waited in the right place and they did not show up. What else can I do but to try to contact them. Client does not answer. So initially I cancelled the ride. It wasn't a problem for me as there is this cancellation fee for a driver,

but the thing is that there were three clients in a row like that! It was a bit suspicious even for me, but I guess the Uber system saw that it is suspicious and blocked my account. (U\_M\_Tln\_8)

The lack of transparency is also felt in relation to client feedback: there is no way to know who gave a bad rating and why if they do not add comments (which, fortunately, Uber enables). Algorithmic systems are sometimes not transparent and can change rather quickly, increasing the insecurity felt by the drivers. This is lessened if the driver is more tech-savvy and can better figure out the logic of the apps. Furthermore, some argued that the pricing policy is not transparent. Bonus systems are something that drivers generally highlight when asked about how taxi platforms direct their work. However, not all drivers think of the algorithmic management and surveillance as problematic, or think about it at all:

I do not think they do anything [to direct drivers]. Well, they only direct us by putting back the bonuses, so people would get out more to drive, to switch their apps on. (U\_F\_Tln\_2)

In such accounts, algorithmic management is just something that contributes to some systemic management, thus providing some sense of safety and security by extension.

### ***3.4 Is There Work that Should Be Abolished?***

In many of the interviews the autonomy and freedom of choice were emphasised as valued characteristics of platform work; however, some of the interviewees used the notion of exploitation rather freely. Indeed, there are clear aspects in working for taxi platforms that align with the type of work that the ILO might consider as needing to be abolished, even while these jobs are generally not understood as representing a case of forced labour but rather emphasise autonomy. The ILO states that “A work relationship should be freely chosen and free from threats” (ILO, 1930). More specifically, the ILO Forced Labour Convention 1930 (ILO, 2013) states the term *forced or compulsory labour* as “all work or service which is extracted from any person under the menace of any penalty and for which the said person has not offered him or herself voluntarily”.

In terms of measuring forced labour, then two criteria must be present: (i) involuntariness/deception, and (ii) penalty and coercion. It is important to notice that the criterion of involuntariness covers the three phases of the working relationship during which coercion may be applied: recruitment, conditions of work (and living conditions) if imposed by the employer, and the possibility to leave the employer. We should not assume that drivers in Estonia are coerced into platform work, and similarly we should assume they are free to leave platform work. Still, there is evidence of practices that limit the drivers’ opportunities to choose or refuse work, punishing the driver, for example, by halting their access to the platform. Both of these two aspects of the ILO definition of *forced labour* deserve to be highlighted here: that a penalty follows when a person has not offered themselves for work.

## **4 Perceptions of Employment Opportunities: Access, Stability, Equality**

### **4.1 Access to Employment Opportunities**

Overall, entering platform taxi driving has been perceived as having a low-threshold, yet it has also increased competition in the taxi industry, making it harder to earn a living as a driver. The reasons the interviewees started working or continue working through taxi apps are manifold. These include the need or desire to earn extra income on top of their main employment, not finding a more secure, higher paid, or professional job, and using the option to earn income (e.g. during studies) with a flexible schedule. For those who started out as traditional taxi drivers, using apps in addition to or instead of working as a “traditional taxi” stemmed from the latter being less beneficial after platforms entered the market. As platforms brought down taxi prices (and earning opportunities for drivers), working for multiple companies and apps has become more of a necessity. For new migrants, taxi apps can also be a way to enter the labour market without speaking Estonian. There are those who started providing services in the very beginning when Uber and locally owned Bolt (back then Taxify) came to the market in 2015 and 2013, respectively, and this area was without any regulations and advertised as a way to share your car and earn some extra income. Some interviewees expressed nostalgia for the period of “actual ride-sharing” when their service was different from the traditional taxi service.

In Tallinn, it is a common strategy to use multiple apps (Uber, Bolt, Yandex, Taxigo) at the same time, whereas in comparison to others, Uber stood out as the most elitist. Uber is the app with the highest entry barriers. Compared to other apps, Uber requires and checks if the driver has all the necessary documents, including taxi insurance. Uber also restricts continuous driving time to 12 h and requires a 6-h break as a minimum, aiming to prevent drivers being overworked. Furthermore, there also seems to be a generally agreed hierarchy between apps, where some interviewees highlighted that using Uber is their first choice—the reasons for that included better clients and rates (although rate differences with Bolt are small), better functioning application (e.g. the client can leave a tip via the app) and Uber’s decent communication with drivers. However, multi-apping seems to occur because Uber lacks clients, so there is a lot of waiting time. This highlights an important aspect of platform work—an inherent insecurity for the workers written into the business model. You can never be certain how much (if any) work there is, how much you have to wait to get your next gig.

### **4.2 Social Protection and Stability of Work**

In Estonia, the platforms are not considered employers, so they do not have to provide their workers any kind of employment contracts, pay taxes for them, or

follow minimum wage or working condition requirements. Although the traditional taxi sector has relied mostly on (false) self-employment when hiring taxi drivers (e.g. taxi services are provided via a one-person company who signs a contract with a larger one), and companies do not provide employment contracts to drivers, platforms introduced a new practice that made the situation more precarious: working as a natural person without any kind of contract with the platform. Therefore, platform taxi drivers are totally responsible for covering their own taxes, social security payments, and other working conditions. Platform workers can, and some indeed do, pay their own labour taxes and receive social security coverage this way. However, paying employment taxes reduces earning opportunities significantly and, as evident from the interviews, this rarely happens. The strategies used for coping included avoiding tax payments and taking the risk of not having social security coverage at all, or to obtain social security coverage from elsewhere.

In our sample, a wide range of ways of obtaining social protection from elsewhere was represented. A rather heterogeneous group of drivers combined platform work with other income sources. Characteristic to this group was that they drive around 10 h per week and worry about the high costs eating up their earnings. Avoiding paying taxes, or skipping the mandatory car insurance for taxis is used to make driving economically beneficial. That the costs are too high to follow all the regulations was a common theme in this group. Social protection—if any—is gained either from their main job or from their own company, which is often a one-person business created to optimise taxes. Those with more of an entrepreneurial identity considered the situation as normal or even desirable, highlighting that they see the platforms only as mediators, with no responsibility towards the platform workers:

[I]t is me who can choose when I work and with whom I work and what customers I offer rides to. Uber is but a communication channel that connects me as a driver and the customer. So, directly speaking, Uber is not providing me with work but just information about customers. (U\_M\_Tln\_3)

Another group included students who received their social security through their student status. On the one hand, our interviewed students were of different ethnic backgrounds. From a social status perspective, however, they were a rather homogeneous group. All were below 30 years old and were somewhat privileged at least in terms of being able to afford to own a car. It seemed that the opportunity to have health insurance from the state and their own car made it easier to find a balance between the costs and earnings.

Well, it is you who is working “in Uber”, then it is you yourself who has to be thinking about the health insurance. Nobody else is going to provide this. /.../Now, I myself have it, since I am entitled to it as a student. But I know that when I graduate from university, I will be searching for a regular job, and I will not drive anymore... Well, maybe I still will, over weekends, for a little extra money, but I do not want to see this as my main source of income. /.../ I have also explored creating my own business and working through this, but, well, then it seems it is more profitable to become a real taxi driver in a taxi company, not being an app driver. (U\_M\_Tln\_4)



In the cases where drivers obtained social security via self-employment or their own company, it was a common strategy to keep the tax payment to a minimum. However, it might not be possible to maintain continuous coverage because of their fluctuating monthly incomes. This group does not consider it possible to survive by driving only one app. Therefore, especially if platform driving is the only source of income, multiple apps are simultaneously used.

Since 2018, it has also been possible for platform workers to declare taxes via the entrepreneur account system for natural persons that provides the option to pay a lower rate of social taxes with less bureaucracy. In that case, the payments into the account need to pass the minimum social tax threshold. As no costs can be deducted from their income, the taxi drivers appeared to have little interest in this option. Furthermore, in cases of high car expenses (e.g. lease payments), the platform income would not cover the minimum social tax payments. As in the case of Jane (female, 48), social tax contributions might be the first to be sacrificed. She argues that she is not worried about that and sees no solution under the current circumstances. Elsewhere in the interview, she emphasises the flexibility of such work as a great asset, relating it to the personal freedom she expects from the work (U\_F\_Tln\_13).

Workers whose social insurance is not paid, mitigate this situation by trying not to think about it much, and hoping that somehow the situation will work out when necessary, although it seems the situation can cause quite a lot of worry and stress:

Well, right now the app is all there is, there is no other... no benefit or support is available from any other source. /.../ I mean, I have not even been employed for the required amount of years [to receive a state pension], and this is important. What about my pension? This is a big fear I have, this is the biggest fear I have! Have I been thinking about it? Well, all the time! I think that something needs to... Yes, this is a fear I have! My friends are talking about pension; well, in 30 years – who knows what happens then! But, well, these 30 years will pass so quickly and at some moment one has to confront it. I cannot really imagine what then! It is better not to think about it now. Maybe by then there are some other arrangements? Some new world order, some new system of retirement. (U\_M\_Tln\_9)

These answers reveal that even if platform drivers have a clear idea what is at fault with the social security of their contracts, they also do not see a good way out of this insecure situation. Unless their social insurance is secured by some other social position, only a few of them are willing to make the necessary additional payments, even if the taxation system has made it easier, as that would considerably reduce their earnings.

### ***4.3 Equality of Opportunity and Equal Treatment in Employment***

In the interviews, we found three dimensions relevant for discussing the principle of equal opportunity: perceived dignity of platform work in relation to other jobs; gender; and drivers' migration status and ethnic origin.

Platform work is not generally perceived in a negative light in Estonian society as it can be in some other contexts. Perhaps platform drivers have gained some of the prestige related to taxi drivers that originates from the era when car ownership was rare and the only alternative to using the taxi service was public transportation. However, no control over price-setting and the resulting low levels of pay in platform work contribute to the lower status of platform drivers in the general occupational hierarchy. One of the interviewees suggested: “like price ceilings, price floors should be established, so that the driver could ask for fair pay” (U\_M\_TIn\_5). The interviews indicated that the labour exploitation by ride-sharing platforms requires drivers to accept not only this exploitation, but also the discrimination of platform drivers compared to other taxi drivers. In addition, individuals from groups with a lower position in society in general (e.g. ethnic minorities) are perceived to have even lower status among drivers, sometimes resulting in unequal treatment and hostility from customers as well as other drivers. Again, the acceptance of differentiation among the drivers serves as a precondition for unequal treatment.

The dimension of equal treatment on the basis of gender emerged in the interviews when discussing the safety of female service providers. The women in our sample did not report many difficulties specific to women, such as harassment, but this may be because they had low expectations. As one of the women drivers put it, she often gets asked if it is safe for women to drive a taxi, but she feels that Uber clients are generally decent and very rarely have there been some unpleasant situations and she is not worried. This indicates that she has had some unpleasant situations, and this may explain why in general women are relatively underrepresented in the less-regulated ride-hailing business: it is understood that this is less safe for them. Another woman stated that she does not feel more threatened by clients because she is a woman, but implied that this business is inherently somewhat more dangerous. It might be important to point out that the female drivers in our sample belong to the medium age group, so they may have already experienced various gender-based challenges and have been able to prepare their own strategies to respond or prevent them. On the other hand, their primary socialisation as well as socialisation into work contexts took place before the *#metoo* era and perhaps their cultural capital allows this risk to be seen as irrelevant.

Migration issues relevant to the Estonian labour market have to be looked at in terms of three different groups: racial minorities, recent migrants, and minority ethnic groups with a second or third generation migrant background. The latter group is predominantly Russian-speakers, who have somewhat lower chances of success in the labour market than Estonian speakers (especially if their Estonian language skills are limited) (Lindemann, 2014). The explicit Estonian language skill requirements for taxi drivers were removed from the Public Transportation Act after the arrival of taxi platforms on the market, although as service providers, skills in the national language are still expected. The expectation that taxi drivers should speak Estonian is continuously present in society and the media (Postimees, 2020; Sutrop, 2019). Although the counterarguments offered by the platforms emphasise that their user interface is available in Estonian (Tiks, 2020), there are examples where the platforms have started to encourage drivers to learn Estonian (Geenius, 2021) based

on the Russian or English language. This is clearly a response to widespread public dissatisfaction rather than legal requirements, and the discussion is ongoing.

In our interviews, drivers with an Estonian background highlighted issues with the low language skills of migrant drivers as well as their poor knowledge of the city, as reducing the quality of the taxi service. While those interviewees used some racialised language, they did not make explicit claims about discrimination against customers or drivers. The interviewees that were recent migrants were from third countries and of a visible minority, and were engaged in ride-hailing alongside their graduate studies. They did not bring up the language as a topic relevant for their service, but they mentioned the need to be extra-polite, keep their cars extra-clean, and so on, to avoid conflicts. Still, they confirmed they had witnessed racially motivated insults addressed to them and had even experienced violence. In terms of access to social security, however, most of the foreign students have these rights arranged through their student status. For other recent migrants, issues with residence permits and the like may be a problem. Our interviewees said they did not find Estonia to be worse in terms of racism than other countries—another sign of low expectations, perhaps, as we noted in the case of gender.

The aspects shaping unequal treatment in platform work and attracting attention in public discussions cover predominantly language-related issues, but also racially motivated insults, especially because of the strong albeit minority presence of visible minorities. With women platform drivers being only a small minority, the gender dimension is almost not not(ic)ed.

## **5 Perceptions of Social Dimension: Social Dialogue, Social Integration, Social Capital**

### ***5.1 Social Dialogue, Representation of Workers and Employers***

The freedom to express concerns and the right to organise and participate in decision-making is an important part of social dialogue, be it on the level of a specific platform or the entire sector of platform work. The Estonian ride-hailing sector stands out compared to the same sector in several other countries for its lack of collective mobilisation against taxi-app companies. There have been some collective actions against Bolt's dynamic pricing policy, but these did not lead to any changes. The platforms exercise considerable control over their drivers through algorithmic management that is often non-transparent. The interviewed workers felt that both their individual and collective agency is constrained by the control that taxi apps exercise over the drivers, including blocking drivers if they do not fulfil the (unfair) requirements, or also for unknown reasons set by the platforms.

Furthermore, the voice of platform workers is rather absent in the public discussions about their situation, and they have few possibilities to negotiate with the platforms. If they have problems with the platforms, the latter can just block their account without due process, as our interviews with the taxi drivers repeatedly revealed. As platform workers are formally some sort of independent contractors, not employees, they also cannot form traditional unions and negotiate collective agreements. De facto, however, they can be rather dependent on the platforms, and should be provided the possibility to exercise their collective voice. Taxi-app drivers, even those who see the need to regulate the market more and demand better conditions from the apps (and not all did—for some entrepreneurial identity and free-market ideology dominated), seem to express the attitude that it is very difficult, if not impossible, for workers to change anything.

The reason why collective mobilisation seemed unfruitful and problematic to the interviewees relates to the huge pool and diversity of available drivers and their individualistic attitudes. In addition, we can also highlight the fact that the drivers are independent contractors, that trade unions in Estonia are generally perceived as weak, suitable leaders are lacking, and the platforms have the power to block drivers who “act out”. Regarding unionisation, the awareness about possibilities was very low and this also reflects the situation in society in general.

Q: How do you see it, could trade unions have any potential in regulating taxis, or Estonian labour market in general?

A: Well, as I already suggested, I do not see this opportunity, considering what is this... what is the business culture and culture of organisations around here – so what impact could trade unions possibly have here?! And with no impact, there is no need for them. (U\_M\_Tln\_6)

As one interviewee mentioned, she has heard of some talk about establishing a union for the platform drivers, but until now no trustworthy leaders for the movement have appeared. She does not have any hope that it could bring any benefits, as she states “what damage could a small breeze do to the fence!” (U\_F\_TLL\_13), likening potential unionising efforts to a breeze that could not possibly alter the general course of social norms and practices. While she seems at least to want such a breeze to turn into a more serious storm, the extreme capitalist viewpoint of one driver who favours minimal regulations and interference by the state sees no possibility for any collective action against the platforms. Instead, he sees the possible unionisation efforts as an opportunity for those not involved to earn more.

Some drivers practise individual agency by sending Uber feedback on how to improve the app, but it was also mentioned that the only feedback Uber expects from drivers is the following:

Some kind of simple and fast survey that wants to know how satisfied you are with Uber as your cooperation partner. I have filled it a few times, but it is very general, rating some stuff on a scale of 1–5. (U\_M\_Tln\_8)

Generally, it seems that both individual and collective agency is constrained by the power of the app.

## 5.2 *Social Integration, Social Isolation, Social Capital*

The work can be quite isolating, as some do not know any taxi-app colleagues and sometimes Facebook forums are the only place to discuss work related matters. In Tallinn, the forums for Uber drivers are less active than those for Bolt-drivers, and some drivers argued that even worker-initiated forums are monitored by the platform and you could get into trouble if you speak badly about them. Uber also expects all communication with them to be done via the app, so there is no personal communication. The former can sometimes be too slow and inconvenient, although there are some drivers who did not problematise that. The lack of a collective was not problematised by some, especially those who consider themselves to be entrepreneurs, rather than labourers and those who only drive occasionally and have another main job.

Being a taxi driver is a cowboy-like job. You are alone really /.../ Everything depends on yourself. (U\_M\_Tln\_15)

Also, the isolation was sometimes mitigated by having a group of drivers as friends, despite the lack of communal space. Such friends were often mentioned by those interviewees who had been invited to drive for platforms by the same friends, suggesting pre-existing friendships. The other group seemed to be those who drive for more than one app, or even having had experience driving a taxi. For them the professional identity as a taxi driver originates from those times.

Outside of those more general aspects of social cohesion through professional identity and solidarity, the daily working life itself may end up isolating or integrating them with the wider society. The former can be the case when the driver takes atypical, rather asocial hours given these are the most profitable. On the other hand, if the driver chooses hours that provide the best match with the working hours of their spouse (or others in their social circle), even if these are not as profitable, this secures them a social role and somewhere to belong.

Some of the interviewed drivers were highly aware of the ways this job could affect their social capital. There were even those who claimed their main motive for choosing this job was the opportunity to interact with people, to meet new people. Some mentioned the possibility to make meaningful social connections; for example, they have received new business suggestions from their customers, pointing to an increase in the bridging type of social capital. Others appear highly aware of the low position their job holds in the social hierarchy and thus do not present it as building their social capital. On the other hand, the image of platform work is not perceived as negatively as it is in some other cities and, for example, also Estonian men, who are generally in a more advantageous position in the labour market than women or the minority population, do not seem to be ashamed of doing this line of work. They can even take a lot of pride in the work, especially when presenting themselves as small-scale entrepreneurs.

## 6 Conclusions

Our study uncovers the nuanced experiences and perspectives of platform taxi drivers in Tallinn. It reveals the paradox in the perceived access to employment opportunities and autonomy, tainted by instability and issues surrounding social security, fair income, and working conditions.

Platform jobs predominantly emerge as a viable option in the face of inadequate alternatives but fall short in providing long-term stability and decent wages. Our main insights suggest that the drivers perceive their working time as flexible and thus seem to experience a degree of autonomy, while they also point out the penalties for actually using this autonomy, and therefore that they need to stay available for customers and, related to this, deal with waiting times. The pay is deemed as a helpful addition if the driver has a regular income, but it is presented as being irregular in nature and insufficient when it is the driver's main source of income. The latter is most vividly demonstrated by the fact that drivers try to find ways to avoid reporting their income to tax authorities, and therefore also forego official social insurance cover. Further research is needed in the area of the potential for algorithmic management to create forced labour situations by using punishments or blocks to limit drivers' opportunities to choose or refuse work.

Another aspect problematised by the drivers related to the aspect of safety when engaging in traffic and avoiding accidents. On the one hand, the open access and low barriers make this line of work attractive to those individuals that are less employable or recent migrants who do not know the city and may be unable to drive safely as they have to follow directions by mobile app even in the midst of heavy traffic. On the other hand, the algorithms are perceived as encouraging or even pushing them to extend their working hours and work more, which could result in fatigue and more danger on the streets.

Our discussion of the social dimension of these platform jobs covered the topics of social dialogue and the representation of employers and workers, and promoting social integration. Our key findings suggest there is a lack of options for engaging in social dialogue in the framework of industrial relations. Due to the widely spread status of being self-employed or an entrepreneur while driving for platform taxis, drivers feel there are no actual negotiating bodies nor do they feel that collective organisation could bring about positive changes. It is safe to say then, that platform workers have not managed to organise themselves in order to have stronger voice in Tallinn so far. It is therefore questionable how much these jobs provide a sense of social belonging and social integration: while for some it served as means to meet and interact with new people, on the whole, the job was seen as a rather lonely undertaking, as there is not much communication with colleagues, and no avenues are created for this.

These findings reflect the interplay of Estonia's techno-optimistic ethos and the realities of the liberal market economy, creating a narrative that both empowers and restricts platform workers. While some individuals view the management strategies of the platforms as restrictive and the work as precarious, the interviewees mostly

appreciate the freedom the platform work offers. This sentiment aligns with Estonia's post-Soviet embracing of the liberal market economy and individual choice. The ability to be one's own boss and the perceived necessity for deregulation are connected to this mindset. However, the interviews reveal the negative impact of such ideologies on the well-being of the workers. Many platform workers, despite appreciating the freedom they have, mention low wages and the lack of social guarantees. Estonia's overall neoliberal and techno-optimistic mentality provides workers with narrative resources that often inhibit them from recognising the negative aspects of their work conditions and drawing connections to the prevailing economic ideas.

Our work further emphasises the importance of continually interrogating and assessing the alignment of workers' experiences with the principles of decent work, especially in the rapidly evolving digital economy. The experiences shared by these drivers provide invaluable insights into the future of work, offering lessons that can inform policy decisions and platform practices alike.

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# Skills Development as a Political Process: Towards New Forms of Mobilization and Digital Citizenship Among Platform Workers



Filippo Bignami, Maël Dif-Pradalier, and Julie Tiberghien

## 1 Introduction

This chapter explores skills in the context of platform work, with a view to redefining the concept in a way that can benefit workers. In addition to transforming the nature of work through the introduction of new technologies, the platform economy has also changed how skills are understood, how they are acquired, and how they align with job requirements. An updated definition of skills therefore needs to encompass those tasks typically performed by platform workers while allowing for an analysis of the (algorithmic) matching channels and processes used by digital platforms (CEDEFOP, 2020, 2021).

There have been three main dimensions to our efforts for mapping the political significance of skills in the context of the platform economy. The first involves identifying “new” or “supplementary” skills that have recently emerged while identifying the circumstances under which such skills are developed. Second, we assess whether the skills required for platform work are specific or general in nature—or a mix of both. Finally, looking primarily at urban contexts, we stress how the renewal of the

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political process through which such skills are defined needs to engage the primary stakeholders: platform workers themselves.

This all raises a fundamental question: In the context of the platform economy, what is the political significance of skills? We believe the answer lies in the relationship between the concept and the rise of digital platforms. Even when they are not directly using technology, contemporary citizens find their participation in society shaped by such platforms. Meanwhile, the ability to capitalize on new internet-based forms of employment and contractual arrangements depends on a wide range of factors, including access to educational opportunities and employment databases (Piasna et al., 2022). Amid this technology-driven transformation of the labour market and society at large, the meaning of skills is changing. Beyond merely something to be applied in the context of work, skills have become crucial for participating in society, developing a personal and political identity, and taking action in often unfamiliar and difficult situations. On the one hand, this underscores the importance of understanding the processes, actors, and conditions involved in “constructing” the skills required for platform work. Furthermore, it highlights the existence of a novel set of social and political processes, actors, and conditions that shape what could be called (urban) digital citizenship (Isin & Ruppert, 2020). Hence the need to redefine the very concept of skills.

The notion of digital citizenship is often rooted in the belief that digital technology is inherently beneficial, regardless of how a person uses it and their ability to use it. In reality, disparities in internet use and access to digital platforms exacerbate pre-existing social divisions and inequalities (Oyedemi, 2015; Scholz, 2016). Accordingly, beyond simply developing technical work abilities, acquiring skills adapted to the platform economy allows for the exercise of digital citizenship. And given the pace of change and the extent of uncertainty surrounding the future, it is vital for the widest possible range of stakeholders to participate in a broad discussion on the use of digital technologies and the promotion of critical literacy, rather than addressing the relevant issues in a piecemeal fashion (Cardullo, 2021).

Simply put, the importance of skills to digital citizenship makes their development a political process, not merely a matter of personal improvement. In a society shaped by digital platforms, skills provide access to the political sphere. But more than just a means to an end, skills also reflect political and societal values, power dynamics, and policy choices. In this way, the question of how the skills required for participation in the platform economy are defined and developed has become fundamental to understanding social and political engagement.

In the workplace and beyond, platform workers deserve a formal voice in the ongoing social and political processes that are redefining their role. As citizens, they need opportunities to gain a deeper understanding of their rights and duties, not to mention recognition as genuine political actors. European initiatives such as the PLUS project can help achieve these goals by providing space for critical reflection on underlying issues. By seeking to better understand and support the skill development process, this chapter aims to facilitate social and political engagement by platform workers. Regarding the political significance of skills in the context of the platform economy, we emphasize the importance of co-construction as an approach to

regulating emerging forms of work and encouraging the exercise of digital citizenship in urban contexts. The chapter's first section provides an overview of how the concept of skills has evolved. Drawing on the results of activities conducted in the context of the PLUS project, the second section shows how the potential for effective political mobilization in the contemporary context depends on a new definition of skills, one that considers both the concept's political dimension and the evolving relationship between workers and a platform-driven labour market. Finally, the third section explores the relationship between platform economy skills and digital citizenship while identifying key points that need to be addressed in terms of developing the skills of platform workers.

## 2 The Meaning of “Skills” in the Context of Platform Work

Scholars, especially sociologists, have traditionally defined skills in terms of the goal-oriented ability to accomplish a specific task (or series of tasks) in a given context by drawing on knowledge, functional competence, behavioural competencies, etc. (Coulet, 2011). In other words, the term generally refers to the competent application of a set of learned abilities, conditional on the availability of certain resources such as time. However, understandings begin to diverge when the concept is examined in more detail. Indeed, some authors have highlighted a deep ambiguity that can cause different actors in the same field to interpret skills very differently (Dietrich, 2002; Lichtenberger, 2003; Livian, 2002).

A skill can be defined as “a social artefact that comes into being through the artificial delimitation of certain work as ‘skilled’” (More, 1982, p. 109). Applying a skill therefore involves leveraging a set of resources (knowledge, know-how, abilities, networks, etc.) to carry out certain activities in a specific professional context and achieve the desired result. Some have portrayed this as a highly individualized process: “The required competence is to the musical score what the actual competence is to its interpretation” (Le Boterf, 2017, p. 83). This means that a given skill can only truly be demonstrated in a situation where a person is called upon to “prove” they can meet the relevant workplace demands. Others have emphasized the distinction between prescribed work and real work (Clot, 2006; Dejours, 2013). From this perspective, the recognition of a skill depends not only on the real-world context in which a task is accomplished but also on the worker's ability to adjust to the changing circumstances typical of their profession (Clot, 2008).

Meanwhile, skills can enable “one to act and/or solve professional problems satisfactorily in a particular context by mobilizing various abilities in an integrated manner” (Bellier, 1999, p. 226). In its plural form, the concept has consistently been defined in terms of two key characteristics: the ability to work in multiple settings and to achieve a certain level of performance (Chenu, 2004). The notion of performance highlights the role social judgement can play in designating an individual as competent or not (Coulet, 2011), that is to say as skilled or unskilled. But as any constructivist would argue, norms are always the product of social construction.

Accordingly, skills are “dependent on situations and the representations that subjects make of them” (Jonnaert, 2009, p. 40), and a worker’s status as skilled or unskilled can be changed simply by modifying the norm. The socially defined nature of skills aligns with our emphasis on the political nature of the skills development process. We therefore see it as essential for the broadest possible range of social actors—including workers labelled as either skilled or unskilled—be involved in redefining the concept for a world shaped by the platform economy.

In the future, determining the relative importance of general and domain-specific skills (i.e., whether the relevant knowledge and experience can be applied only to certain specific professional situations or to work generally) in the platform economy will be key to understanding social change and skills development. Platform work is characterized by a high degree of variability in the tasks performed within each occupation; those workers best able to interact with platforms tend to be those who can apply a wide range of skills. Regardless of the extent to which automation ultimately shapes the future of work, workers and entire communities are already being pushed to diversify their skills. Accordingly, the development of individual skill sets needs to be understood as a participatory (rather than personal) process, whereby specific configurations of skills are co-constructed and co-decided with an emphasis on transferability (from one job or sector to another). This shift away from a labour market based on well-defined skills subject to top-down certification can undermine workplace stability, career success, product quality, and regulatory efforts. As a result, skills development (i.e., defining skills, recognizing them, and establishing a more or less rigid framework for acquiring them) has acquired its political dimension, insofar as determining the skill set required in a particular form of work increasingly requires a shared understanding of the processes involved, as opposed to the consultation of an established index of skills and tasks.

We need to think flexibly and creatively about which platform economy stakeholders hold the power to spark faster and more comprehensive reform through the redistribution of power (i.e., by engaging previously excluded stakeholders) and workplace organizing (Johnston et al., 2020). Currently, skills tend to be discussed in terms of either their technical/professional dimensions or the knowledge and techniques (education, training, experience) required to properly carry out specific forms of work. These largely pedagogical and technical perspectives obscure the extent to which skills are in fact political and social constructs. In other words, skills should ideally be identified, defined, applied, and assessed in a manner that provides all stakeholders—and, above all, workers—with an equitable share of economic opportunities and benefits. But although skills constitute an important pillar of modern (capitalist) economies, workers often see their skills undervalued and overlooked. With this in mind, various stakeholders (workers, employers, educational and training institutions, government agencies, etc.) need to be mobilized in a twofold effort to rethink skills development. On the one hand, what innovative approaches could be taken to establishing a framework for defining and developing the so-called new skills required by the contemporary labour market? On the other hand, what measures could be taken to ensure that so-called traditional skills are adequately valued, recognized, and remunerated in a changing economic landscape.

The European Commission's Digital Competence Framework for Citizens (DigComp) is one tool that could help with addressing the issue of emerging skills. It groups 21 specific "competences" under five broad "areas": Information and Data Literacy, Communication and Collaboration, Digital Content Creation, Safety, and Problem Solving. Designed to support European countries in developing policies related to digital skills, DigComp also makes it possible for individuals to assess their level of digital proficiency (on a scale of one to eight). Furthermore, the framework recognizes that digital skills are not solely technical in nature (Zhu & Andersen, 2021), a reflection of how the European Union defines digital competence in terms of "the safe and critical use of information society technologies (IST)" (European Commission, 2006, p. 7). The Norwegian government has elaborated on this point by defining digital competence as

the ability to relate to and use digital tools and media in a safe, critical and creative way. It is about knowledge, skills and attitudes. It is about being able to perform practical tasks, communicate, obtain or process information. Digital judgement, such as privacy, source criticism and information security, is also an important part of digital competence. (Norwegian Government, 2012, p. 18)

These considerations highlight two key aspects of skills development as a decidedly political process: (1) how working with digital technology requires the prior mastery of multiple digital skills and (2) how an open and shared framework needs to be developed for recognizing such skills and compensating platform workers accordingly.

Acknowledging skills as inherently political—and therefore shaped by a political process influenced by the voices and actions of a wide range of individuals and groups—is crucial for understanding citizenship in the context of the emerging platform economy (Zuboff, 2019). It makes it possible to recognize the power dynamics and structural inequalities that determine how skills are acquired, recognized, and applied in contemporary society (Soares Carvalho & Bignami, 2021). In short, it constitutes the first step towards creating more inclusive and equitable systems that empower platform workers to exercise digital citizenship in meaningful ways.

### **3 Skills as a Basis for Workplace Organizing and Political Mobilization in the Platform Economy: Lessons from the PLUS Project**

Urban space provides an ideal context for studying economic and social changes associated with the platform economy (Barns, 2020). It is where most platform work takes place, whether in the form of food delivery, ride-sharing, and cleaning services, or temporary apartment rentals. One component of the Horizon 2020 project aimed to develop a deeper understanding urban discourses on skills in the platform economy. In addition to two meetings of the PLUS Community of Practice, we held workshops for workers, representatives, coordinators, and other stakeholders in

the project's seven case study cities (Barcelona, Berlin, Bologna, Lisbon, London, Paris, and Tallinn). These events were an opportunity not only to provide training but also to discuss how the notion of skills could be collectively redefined with the needs of platform workers in mind. To that end, we explored how the recognition of skills as a political construct can support the exercise of digital citizenship, how platform work offers certain opportunities for challenging power relationships, and how digital platforms and other forms of technology have undermined the nation-state's role in structuring the habitus of citizenship by providing access to new interactional spaces (McCosker et al., 2016). Taking both virtual and physical forms, these so-called platform spaces have a discursive significance that goes beyond the distinction between online and offline environments (Quodling, 2016). In fact, this dichotomy, which is reinforced through the use of terms like "cyberspace," obscures the inter-relational—and therefore political—dimension of such spaces (McCosker et al., 2016).

In terms of how platform spaces are created through interactions between individuals, consider the following points raised at the PLUS training workshops and Community of Practice meetings:

- Applying the technical skills demanded of some platform workers requires access to data stored on the platforms themselves. The workers concerned wanted to learn how to access this data while ensuring that platforms use it fairly. A desire for a better understanding of how the underlying algorithms work (as opposed to the technical details of how they are developed) was also expressed, insofar as being deprived of such information places platform workers in a position of inferiority in relation to management.
- Participating platform workers did not see a need for specific training on time management. They felt fully capable of effectively managing their time based on their experiences in both professional and household contexts. However, they did note how the way that platforms constantly change the rates for different time slots hinders planning. Instead of seeking to improve their time management skills, the workers concerned emphasized the need for platforms to apply rates in a stable and transparent manner.
- Many participants mentioned having acquired advanced navigation skills through their work with platforms like Deliveroo and Uber. However, these skills are neither recognized by the platforms concerned nor transferable.
- Several platform workers complained that they did not understand how platform algorithms work, noting how this lack of knowledge limited their ability to apply operative skills.
- In many cities, people using the Uber, Deliveroo and Airbnb platforms described having developed advanced social and communication skills through their work. However, such skills are not recognized by the corresponding platforms, nor are they transferable from one platform to another.
- Some participants mentioned not knowing where to turn when a platform discriminated against them. Most of the workers concerned knew very little about labour organizing strategies; how a union could help them pursue a claim; or other means

of sharing experiences, raising awareness, and applying political pressure (legal action, protest, strikes).

- Issues of health and safety, including psychological health, were rarely discussed. However, we noted various signs that platform workers enjoy little in the way of protection, especially where workplace accidents and injuries are concerned.
- Participating platform workers were often uncertain about transitioning to employment in another sector, including how to leverage skills and experience. In other words, the lack of employability skills is a crucial issue.
- With a few notable exceptions, participants generally lacked a clear understanding of how platforms collect and process data related to their work, nor were they familiar with procedures for obtaining a copy of their personal data from a platform and ensuring that such data is not used without their authorization or to discriminate against them.
- Along with many Airbnb hosts, some Uber and Deliveroo drivers complained that they were largely left to their own devices and had to rely on Facebook, and WhatsApp groups for advice on dealing with various issues. This reflects a lack of awareness of how both individual activism (taking legal action, sharing information, etc.) and collective activism (organizing protests, pursuing shared demands, social networking, etc.) can support skills development.
- Likewise, organizing skills and support from labour unions could prove critical to addressing problems associated with platform work. For instance, providing opportunities to develop cooperative skills has emerged as a key means of reaching platform workers and explaining their labour rights, the power of networking and collective action, etc.

At the Barcelona and Lisbon workshops, we learned that networks for defending the interests of platform workers already exist in those cities. Although the networks in question remain informal and largely uncoordinated, participants in the Bologna workshop pointed out how the connections established in spaces like Facebook groups or blogs can be effective in promoting shared interests. But regardless of the support that might already be available in a given city, workshop participants consistently emphasized two points related to skills development and workplace rights. First, if they are to improve their working conditions, platform workers need to know more about how platforms work. Second, attendance at any training required by a platform should be considered work time and compensated accordingly.

Both the workshops and the Community of Practice meetings highlighted the extent to which the politically aware co-construction of skills depends on stakeholders—especially workers—being present and active in both offline and online platform spaces. Accordingly, platform workers must have access to the skills required to effectively navigate such spaces; they must be able to develop the habitus and acquire the capital needed to participate in and contribute to communities of shared interests while casting a critical eye on the surrounding discursive environment. These requirements reveal the nodal nature of skills development and fully align the PLUS project's efforts with European calls for flexible policies based on input from all stakeholders (European Commission, 2021). Specifically, the European



Commission has identified three core policy issues: misclassification or downgrading of employment status; fairness and transparency of algorithmic management practices; and enforcement, transparency, and traceability of platform work, including in cross-border situations.

Ultimately, platform spaces are both fluid and political. As such, they allow for the co-construction of skill sets required for platform work while helping provide the level of technical and digital literacy needed to avoid becoming a casualty of technological disruption (Hanakata & Bignami, 2021). Created and developed through digitally mediated interactions between individuals, such spaces exist in a discursive environment that shapes not only how the opportunities offered by the platform economy are understood, but also how the skills citizens need to effectively navigate platform spaces are developed.

#### **4 Platform Workers and (Digital) Citizenship: Framing Skills Development as a Political Process**

Citizenship is often understood as a fixed concept reflecting status or membership. In reality, the meaning of citizenship is rooted in enacted practices and performed processes (Clarke et al., 2014; Pykett et al., 2010). Beyond questions of legal status, rights, and responsibilities, it is by seizing opportunities to claim substantive rights and participate in public life that individuals engage in the “social, political, cultural and symbolic” practices that confer citizenship (Isin & Nielsen, 2008, p. 17). In other words, it is a matter of collectively developing a citizen habitus, which then serves as the basis for the ongoing co-construction of citizenship (Bignami, 2014).

In addition to providing access to employment (Hargittai & Hinnant, 2008), platforms and the internet increasingly mediate social and labour relations. In this context, digital technology can facilitate opportunities for exercising new forms of citizenship through both online and offline interactions. Digital citizens can therefore be defined as individuals who engage in citizenship practices via digitally mediated technologies (Vromen, 2017). As Boyd (2014) has noted, “although it is not necessary to be technically literate to participate, those with limited technical literacy aren’t necessarily equipped to be powerful citizens of the digital world” (p. 183). In the same vein, Mossberger et al. (2008) have emphasized the need for people to develop, from a young age, an understanding of how the technology they use can support active participation in a digitally mediated world. But along with focusing on how such engagement benefits individuals, these authors tend to equate quantity with quality—a viewpoint questioned by many others (Hargittai & Hinnant, 2008; Hargittai et al., 2018; Isin & Ruppert, 2020; Livingstone & Helsper, 2010; Ono & Zavodny, 2007; van Deursen & van Dijk, 2011, 2019). More broadly, much of the existing research that touches on workers’ relationship with digital technology and what we call platform spaces lacks any explicit recognition of digital citizenship. Nevertheless, the latter concept offers a promising means of considering the different

ways in which people use digitally mediated spaces to build connections, as opposed to the prevailing focus on how they individually acquire “certain digital rights and abilities, skills, and agentic power” (Cardullo, 2021, p. 75).

Different concepts of citizenship can give rise to specific constructions of digital citizenship and associated skills. In the context of the PLUS project, skills that facilitate access to digital technology and platform spaces are considered symbolic capital connected to political and social status. Although this view could justify a formal right to access such technology and spaces, neither nation states nor lower levels of government are currently obliged to ensure access. Meanwhile, with the development and spread of e-government strategies (e.g., under the terms of the 2017 Tallinn Declaration signed by all member states of the European Union), the exercise of citizenship rights increasingly requires proficiency in the use of digital technology. But more than just a matter of access to technology and frequency of use, digital citizenship is a participatory model that recognizes the need for political and social engagement, as well as the significance of underlying skills and behaviours. Shifting the discussion on skills from technical and professional considerations (procedures, training, certification, etc.) to the active co-construction of skill sets through the exercise of digital citizenship in the context of the platform economy will be key to ensuring the sustainability of platform work (Huws et al., 2016). Such a transition will require recognizing citizens as active participants in an ongoing process, as opposed to simply producers and consumers of data (Falk, 2011). With respect to platform workers, this will mean ensuring that they can directly participate in how their skills are defined and formalized. And as we learned at the PLUS project workshops discussed in the previous section, there is a significant need for training and recognition in several areas.

In terms of our initial question regarding the meaning of skills, the current situation raises three key issues. To begin with, training needs to become a source of autonomy for platform workers, as opposed to a burden or constraint. This point is especially significant insofar as relevant training—such as on how platforms collect and monetize personal information—can help platform workers resist exploitation. Furthermore, the broader process of co-defining skills needs to address training from the multiple perspectives of learning through connecting, doing through thinking, collective action through awareness and commitment, and change through conscious action. Embracing a more comprehensive notion of training will foster recognition of the deeper political significance of taking action, building dynamic relationships, and applying skills. In practice, this will require major changes to training systems, which need to take a more critical and participatory approach based on shared understandings, co-constructed methodologies, and a transparent collective process for defining skills.

The second issue concerns systems of social protection. As noted in the previous section, skills can be leveraged to help pursue legal claims and political demands. Regardless of the various employment regulations in place across different jurisdictions, platform work is consistently shaped by a logic of outsourcing—including the outsourcing of risk to platform workers, who need access to the necessary tools

for safely carrying out their professional activities. The COVID-19 pandemic highlighted the vital importance of the skills required for platform work, especially in the case of home delivery services. But lockdowns also helped expose the precarious conditions and risks faced by platform workers, whose state of economic dependence underscores the need to update labour laws in line with digital evolution (Bernier & Monchatre, 2018). In particular, the legal and economic distinction between self-employed workers and salaried workers has become increasingly blurred. The “grey zones” (Supiot, 2000) resulting from the rise of the platform economy and the decline of traditional wage employment have grown to the point where many forms of work appear to lack any legal framework whatsoever (Bureau et al., 2019). This raises fundamental questions about the (re-)distribution of value, especially in a context of tax optimization by digital platforms (Palier, 2019). In addition to extending existing protections to emerging employment arrangements and forms of work (e.g., by granting platform workers to right to employment insurance), the relevance of categories like self-employed workers and salaried workers should be questioned. Would establishing a single employment status (and associated tax regime) facilitate the adoption of a comprehensive set of protections for all workers (including platform workers)? Such an approach could be pursued alongside the implementation of a universal basic income (Palier, 2019; Stiegler & Kyrou, 2016). Meanwhile, instead of focusing exclusively on the regulation of private platforms, public platforms could be developed to promote a more equitable distribution of resources and more meaningful engagement in public life (Srnicek, 2017).

The final issue relates to the capacity for platform workers’ skills to support the full exercise of digital citizenship, alongside more traditional forms of political mobilization. The activities discussed in the previous section highlighted the critical need to redefine skills in the context of the platform economy through a participatory process involving all stakeholders. Such a manifestation of digital citizenship in action would focus on achieving the following goals:

- Clarifying data ownership, ensuring workers can access their personal data, requiring disclosure of how platforms collect and process such data, and preventing it from being used in discriminatory or unauthorized ways.
- Identifying key allies and tactics in the fight to ensure platforms apply rates to different time slots in a stable and transparent manner (so workers can plan their time effectively).
- Defining and recognizing skills in a way that maximizes their transferability, so workers can more easily apply their skill sets to different workplaces.
- Providing workers with the skills they need to understand the principles governing how platform algorithms operate.
- Promoting social and communication skills.
- Providing clear information on labour organizing, how unions can help workers pursue claims, and how workers can effectively share knowledge about different forms of collective action (protests, strikes, etc.).

- Addressing health and safety concerns, including those related to psychological health (Where can platform workers turn? Who has the power to improve conditions?).
- Improving employability through development of transversal skills that make it easier for workers to transition from one sector to another, as well as by mapping informal skills, adding value to skills, identifying cross-sector and inter-sector opportunities, and building on work experience.
- Increasing the potential for collaboration between workers by fostering connections through networking and increasing awareness of activism as a tool for influencing how skills are defined or acquired, whether at the individual level (legal action) or collectively (coordinated action, political campaigns, social networking, problem-solving).

When considering how skills development constitutes a political process and skills themselves can serve as tools of digital citizenship, it is important to acknowledge that platforms offer opportunities to disrupt existing systems. This means that by using platforms to engage in political action, workers can fluidly adopt practices that reflect their habitus across multiple spaces (Loader et al., 2014; Robertson, 2009). Platforms therefore constitute a political terrain capable of facilitating cooperation, processes of co-construction, and the attainment of a level of technical and digital literacy that will prevent workers from becoming casualties of technological disruption. Instead, they will be equipped to participate in and benefit from the ongoing shift to “platform urbanization” (Hanakata & Bignami, 2023). Likewise, the politically aware co-construction of skills requires a presence in online and offline platform spaces, where individuals can contribute to communities of shared interests. And to the extent that these fully-fledged digital citizens can effectively navigate and critically assess such discursive contexts, they will be well positioned to acquire political, economic, and social capital (Ignatow & Robinson, 2017).

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# How to Build Alternatives to Platform Capitalism?



Melissa Renau Cano, Ricard Espelt, and Mayo Fuster Morell

## 1 Introduction

### 1.1 Platform Economy Sustainability

The platform economy involves the exchange, sharing, and collaboration of capital and labour among distributed groups supported by digital platforms. The rise in digitalisation, technological advancement, and big data analytics have contributed to the emergence of these digital platforms that mediate the provision of work (Piasna et al., 2022). The pandemic has further fuelled the expansion of such platforms (Barcevičius et al., 2021: 46). For instance, the demand for home food deliveries during lockdown inflated the need for food delivery platforms, like Glovo, as well as workers to match this demand.

The rise of the platform economy has become a high priority for governments across the globe, especially in regard to the expectations of the platforms to contribute to the sustainable development of society and the democratisation of the economy (Botsman & Rogers, 2011; Heinrichs, 2013). The establishment of the 17 Sustainable Development Goals (SDGs) in 2015 and the European Commission on a European agenda for the ‘collaborative economy’ in 2016 demonstrate the importance of achieving a better and more sustainable future for all (United Nations).

Although most research focuses on extractivist platform models such as Uber, a variety of models coexists and each is differently aligned towards SDG’s. Although the platform economy is creating high sustainability expectations, there is huge ambiguity surrounding platforms that present themselves as collaborative when, in fact, they are not, such as the likes of Uber. Uber represents a unicorn extractionist corporation platform and is considered a new form of extractive capitalism, termed “platform capitalism” (Srnicsek, 2016). The company is an incorporated, private company that

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maximises profits at the cost that employees are hyper-exploited with low wages, no benefits, and have to cover the costs of insurance, maintenance, and fuel. At the same time, the platform siphons off every transaction the workers facilitate (Srnicek, 2017). It is, therefore, clear why so much confusion exists around digital platforms that classify themselves as collaborative, sharing, and commons-oriented (Fuster Morell & Espelt, 2019).

In this research we postulate that there are three different types of platform models: unicorn platforms, open commons, and platform cooperatives. Unicorn platforms are aimed at generating profit, usually through extractive means, and without looking to avoid the negative externalities caused by their activities (Fuster Morell et al., 2020b). It's no surprise why these platforms receive a lot of media and research attention, even though alternatives to unicorn platforms do exist, like alternatives linked to the tradition of digital commons (open commons) and cooperativism (platform cooperatives) that are aligning the platform economy towards the SDGs (Fuster Morell et al., 2020b).

## ***1.2 Alternatives to Platform Capitalism***

As briefly mentioned previously, one alternative to platform capitalism is “*platform cooperativism*”, which adopts the principles of cooperativism and the values of the Social and Solidarity Economy (SSE) (Scholz, 2016). The SSE is an alternative to capitalism that aims to take the best practices in our present system (e.g. knowledge, use of technology, and efficiency) and remodel them to serve the community's welfare based on different goals and values (RIPESS, 2015). Platform cooperativism is a concept that includes foundations, associations, and cooperatives but also commercial companies with a social mission (Scholz, 2016). Open commons platforms go beyond platform cooperatives in the sense that they contribute to new developments opening data and knowledge through the use of open licences and Free Libre Open Source Software (FLOSS) (Bauwens & Kostakis, 2015; Benkler, 2006; Fuster Morell, 2010)

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Although platform co-ops and other decentralised organisations based on social economy and open knowledge, such as open commons (Bauwens et al., 2019; Benkler, 2006; Fuster Morell, 2010), are a route into a fairer, more inclusive digital economy, these models have not received much research or policy attention (Fuster Morell et al., 2020a, 2020b). Few studies have conducted empirical case analyses, most concentrating on creating frameworks for analysis or organisational principles (Bauwens and Kostakis, 2015; Scholz, 2016).

In addition to this, no holistic framework currently exists to assess the pro-democratisation and sustainable qualities of the platform economy. Furthermore, although the sustainable design of platforms has considered economic and technological aspects, other aspects, including gender, inclusion, environmental impact and policy implications, have not been considered. Therefore, a multidisciplinary perspective of the platform economy is yet to exist.

### 1.3 Research Proposal

By compiling the results from the different research performed by Dimmons in the PLUS project, this chapter aims to bridge the gap in previous research by categorising different platform models (unicorn platforms, platform cooperatives, and open commons), using an analytical tool, “Star of Democratic Qualities” to visualise their pro-democratisation and sustainability qualities.

The sample is formed of a total of 60 cases (studied using digital ethnography), 20 of which were studied in depth using structured interviews, as well as semi-structured interviews, co-creation sessions, and surveys with stakeholders of three platform alternatives: Katuma, Smart, and Fairbnb. This will provide valuable insights into the sustainability implications of the different platform models’ design and performance from several perspectives, considering the dimensions of social responsibility, economic strategy, technological base, governance, and knowledge policies—dimensions not considered in previous research. It will also assess to what extent Katuma, Smart, and Fairbnb may be considered alternatives to unicorn platforms in terms of gender equality, work-life balance, and working conditions.

## 2 Methodology

The “*Star of Democratic Qualities*” framework (explained in Sect. 3) was tested with an empirical analysis of 60 platforms. This wide focus allows for the analysis of the connection between a platform economy and SDGs by exploring the pro-democratisation and sustainable qualities of the platform economy models, including unicorn platforms and alternatives (Fuster Morell & Espelt, 2019). This was then followed by in depth semi-structured interviews, surveys, and co-creation sessions with stakeholders from the three platform alternatives (Katuma, Smart, and Fairbnb).

**Table 1** PLUS' sample grid for categories considering unicorns versus alternatives

Sector	Number of platforms	Unicorn	Alternatives
Networked hospitality business	15	9	6
Taxi and car-sharing services	15	12	3
Urban food delivery	15	7	8
On-demand home services and care	15	11	4
Total	60	40	20

## 2.1 Sample

The sample consisted of platform stakeholders from each alternative platform: Fairbnb, Katuma, and Smart) and 20 platform economy' cases from 60 case-studies for a more in depth further analysis. Four main criteria guided the 60 case sample selection: (1) Platforms are related to the following PLUS working areas: domestic services, urban food delivery, taxi services, and networked hospitality. Fifteen cases were purposely selected in each area to develop a cluster analysis among cases in the same working area; (2) Platforms are active in one or more PLUS city; (3) The sample includes platform alternatives to the Unicorn platforms: 70% of the cases were unicorn platforms, 30% were platforms that aimed to be an alternative to unicorn platforms, e.g., non-profit business models; (4) although, for the global sample (studied through digital ethnography), we account for a proportionally higher amount of for-profit business models, it is the reverse in the 20 cases studied in depth, where more than 50% of the cases (11 out of 20) were non-profit business models.

The differences in platform economy modalities allow for comparisons in terms of how each platform economy model contributes to sustainability.

Considering the above criteria and PLUS working areas, the 60 case sample is as follows (Table 1).

## 2.2 Data Collection and Analysis

There were five methods of data collection: web collection, structured interviews, semi-structured interviews, surveys, and co-creation sessions.

### *Web Collection*

Web collection was based on digital ethnography of the web platforms and was applied to all 60 cases. A "codebook" for data collection—a set of indicators related to the analysis variables—was employed. The codebook departs from the Star of Democratic Qualities framework. The design from the outset is based on a multidisciplinary analysis of the state of the art of the platform economy from economical, technological, environmental, gender and inclusion, and legal and policy perspectives.

### *Structured and Semi-Structured Interviews*

#### *Interviews*

Structured interviews were conducted with 20 of the 60 cases. The guiding set of questions was based on the Framework of Democratic Qualities and the codebook (see D.1.2). On the other hand, semi-structured interviews were conducted online with 12 stakeholders (four from each platform cooperative). The stakeholders interviewed were members of the organisations, providers, customers, technological providers, and workers. The interviews were performed to understand the stakeholders' views on working conditions, redistribution of gains of their organisation and platform cooperatives in general, gender perspectives, and the strengths and limitations of economic performance in terms of growth. The guiding set of questions was based on the Framework of Democratic Qualities and the codebook. Each of the three researchers analysed the data using a DAFO analysis.

#### *Survey*

The survey gathered participants' demographic data as well as their views on their working conditions. Twenty-one participants completed the Fairbnb survey, sixteen respondents completed the Katuma survey, and eleven participants completed the Smart survey. Although the survey was slightly modified to adapt to each platform cooperative, the baseline was to ask a similar set of open and closed questions to obtain comparable data.

#### *Co-creation Sessions*

The co-creation sessions were designed to present the survey results, listen to the participants' opinions, and discuss possible strategies for the improvement of the platform cooperatives. In the Fairbnb co-creation session, seventeen people participated (4 managers, 5 workers, 4 local partners, 2 individuals cumulating roles of worker and local partner, and 2 co-authors of the D5.2 report). The Katuma co-creation session consisted of ten participants who were users, producers, members of consumer groups, researchers, Katuma's workers, and volunteers. The Smart co-creation session involved nine members of Smart and Smart internal personnel.

## **3 The Star of Democratic Qualities**

This section presents the framework to assess the pro-democratisation and sustainability of platform economy models, which is a framework formulated from our previous works (Fuster Morell & Espelt, 2019). The framework segments the pro-democratic qualities of the platform economy into five dimensions: governance, economic model, knowledge policy, technological and data policy, and social responsibility regarding externality impacts (Fig. 1).

## STAR OF DEMOCRATIC QUALITIES OF DIGITAL PLATFORMS

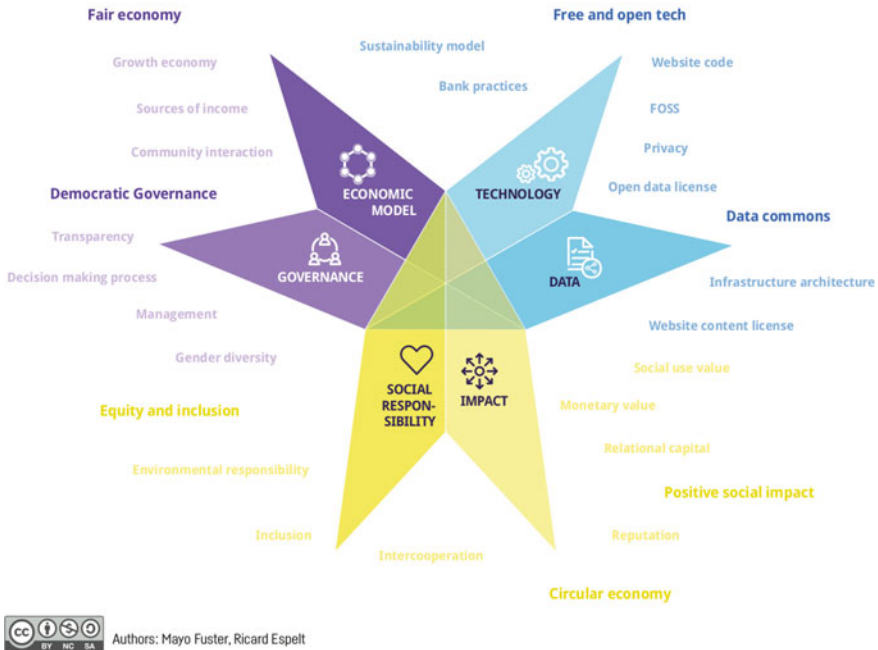


Fig. 1 The star of democratic qualities (Fuster Morell & Espelt, 2019)

The United Nations’ 17 SDGs have been linked to the Star of Democratic Qualities. The five dimensions and their connection to the SDGs are explained below.

### 3.1 Governance

The governance dimension of the framework can be segmented into different aspects:

- (1) The democracy among value creators at the platform interaction level. This relates to the adoption of any formal or informal decision-making system/tool, the participation of users in the definition of formal rules and policies and decisions about the platform’s income distribution, spaces for workers’/ producers’ organisation, and the relationship between users, i.e., if users can communicate among themselves or create groups.
- (2) The governance regarding platform ownership organisation. This involves the type of legal entity and the options for community members to engage with each type, considering: public administration, university, foundation, association, cooperative, company, or without legal format; (2.2) the status

of users (i.e. users only or also owners) regarding the platform's legal entity; (2.3) the accessibility of profit and loss account to all the members of the legal entity; and (2.4) the publication of the financial statements to both members and non-members of the platform.

The platform governance indicators mentioned above, and the targets developed to achieve the different SDGs' goals are unrelated in this case.

### **3.2 *Economic Model***

This dimension examines the link between economic benefits (destination and distribution) and social impacts (labour rights and conditions and growth type), and the economic sustainability of the project and their financial models (private capital, ethical finance, distributed fund). To ensure equitable and timely remuneration and access to benefits and rights for workers (right to disconnect, rejection of excessive vigilance at the workplace, protection against arbitrary actions, safe income, salary predictability and maximisation of income).

Some of the indicators of the democratic qualities in relation to the economic model dimension (growth model, juridical recognition, job creation, earnings maximisation and income security, minimum salary, salary equality, working conditions, workers' caring support, health workers' safety, and gender equality) are ingrained in goal 8 (full and productive employment, decent work for all, and promote inclusive and sustainable economic growth), goal 1 (end poverty in all its forms everywhere), goal 3 (ensure healthy lives and promote well-being for all at all ages) and goal 4 (ensure inclusive and quality education) of the SDGs.

Governance and economic model are interconnected as, ultimately, the way that the project or platform is governed is connected to the underlying economic model (Fuster Morell & Espelt, 2018).

### **3.3 *Knowledge Policy***

This dimension refers to the type of property as established by the licence used (free licences or proprietary licences) of the content and knowledge generated; type of data (open or not), the ability to download data (and which formats), and the promotion of the transparency of algorithms, programs and data. Privacy awareness and the protection of property from personal data and prevent abuse, as well as the collection or sharing of data without consent. This aspect also regards guaranteeing the portability of data and reputation. No SDGs acknowledge platform knowledge policies.

### ***3.4 Technological and Data Policy***

This dimension refers to the freedom and openness (type of platform licence, whether free or proprietary) of a platform's software and the model of technological architecture (distributed or centralised). This democratic indicator connects to goal 9 of the SDGs (foster innovation, promote inclusive and sustainable industrialisation, and build resilient infrastructure).

Like the divisions of governance and economic model, knowledge and technological policies are also interconnected as the way the platform promotes knowledge is based on the platform's technological tools and licences (Fuster Morell & Espelt, 2018).

### ***3.5 Social Responsibility and Impact***

These dimensions relate to any source of awareness and responsibility regarding the externalities and negative impacts, such as social inequalities and exclusion, the inclusion of gender, in regard to equal access to the platform for people of all kinds of income and circumstances in an equitable and impartial way (without discrimination). This dimension also regards compliance with health and safety standards that protect the public and the environmental impact (promoting sustainable practices that reduce waste and emissions).

The social responsibility and impact dimension relates to the majority of the SDGs, including 1 (end poverty in all its forms everywhere), 2 (zero hunger), 3 (ensure healthy lives and promote well-being for all at all ages), 5 (achieve gender equality and empower all women and girls), 7 (ensure access to affordable, reliable, sustainable, and modern energy), 8 (promote inclusive and sustainable economic growth, employment, and decent work for all), 9 (build resilient infrastructure, promote sustainable industrialization, and foster innovation), 10 (reduce inequality within and among countries), 11 (make cities inclusive, safe, resilient, and sustainable), 12 (ensure sustainable consumption and production patterns), 13 (take urgent action to combat climate change and its impacts), 14 (conserve and sustainably use the oceans, seas, and marine resources), 15 (sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss), 16 (promote just, peaceful, and inclusive societies), and 17 (revitalise the global partnership for sustainable development). Figure 2 shows the connection between the democratic qualities of the platform economy and the SDGs.

In the following sections, the sustainable and pro-democratic platform economy dimensions are analysed using 20 platform economy cases and a deep study of three different alternatives to platform capitalism: Fairbnb, Katuma and Smart. The analysis will also focus on the contributions of different digital platform economy models in achieving SDGs' objectives.

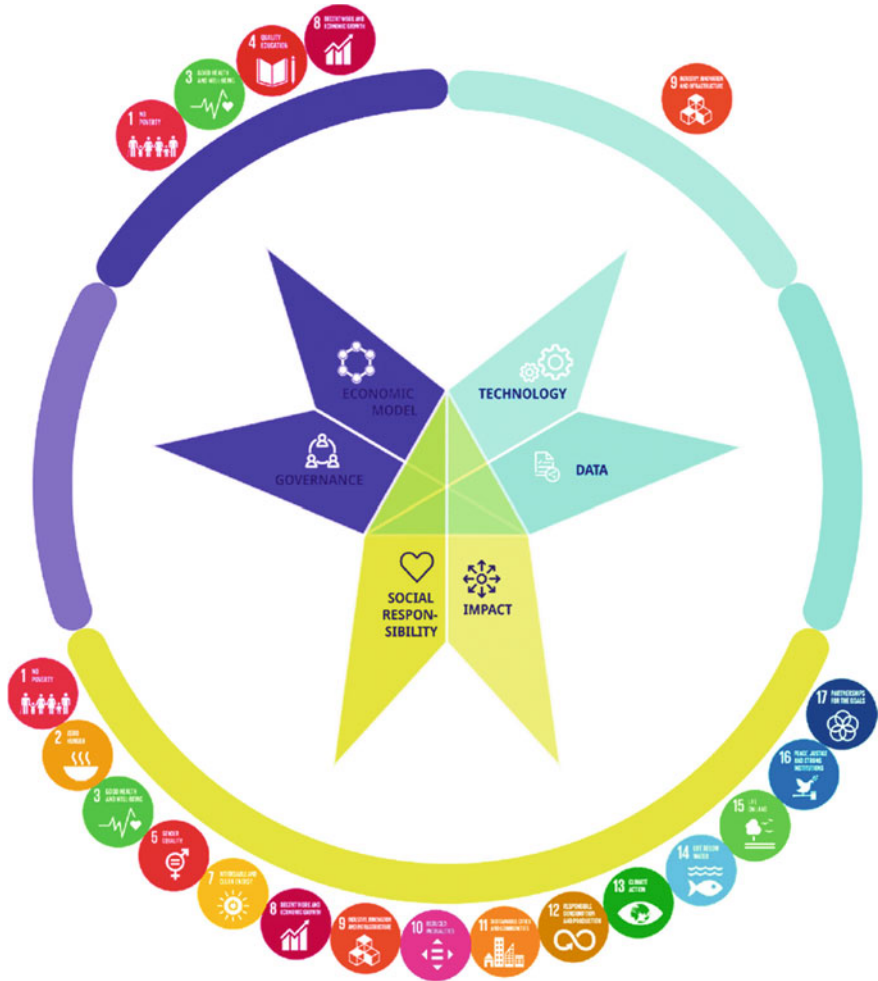


Fig. 2 The star of democratic qualities of digital platforms with the sustainable development goals incorporated (Fuster Morell et al., 2020b)

## 4 An Analysis of 20 Cases in Europe

### 4.1 Governance

Regarding platform governance, the analysis in terms of informal mechanisms shows that 14 out of the 20 platforms studied in depth consider that they are enabling workers' spaces for organisation (13 of them are alternative business models (platform cooperatives, for-profit social businesses, etc.). Although it is important to note that one for-profit platform (Case 19) considers that the company is providing spaces



for workers' organisation, as they can meet in the streets during working hours, but explained that this is something that the company does not want to foster.

Similarly, in one of the for-profit business cases studied (Case 29), the manager argued that collaborators (workers) have a space to provide comments about each service performed, but the platform does not see their comments. They added that although they would like closer contact with collaborators to improve the service, they did not because they wish to make the non-dependent working relationship between parties clear, where legal requirements specific to a paid employee do not apply.

The informal mechanisms analysis also measured the existence of a democratic decision-making process. The analysis found that 11 out of the 20 platforms established a decision-making system, all of which are considered alternative models to unicorn platforms. Of the nine cases that have not established a decision-making system, just two are considered alternative business models. But it is important to note that one of these cases is a recently created not-for-profit model (Case 50), and the other is a for-profit social business (Case 31). This implies that all the for-profit business models studied in depth and considered unicorns (or potential unicorns) have not established any type of system for democratic decision-making.

Concerning formal mechanisms, one of the key indicators is the legal format of the platforms studied. The analysis shows that the platform economy has a varied makeup that goes beyond for-profit models. Of the platforms studied, 71.7% are commercial companies, while 28.3% are based on not-for-profit legal formats.

In terms of the user's involvement in formal rules and policies that govern the platform from a community interaction perspective, 14 out of 20 cases state that users can participate in the definition of formal rules and policies, while six consider that they cannot. Secondly, in 9 out of 20 cases, those making decisions regarding the use and distribution of platform benefits are its owners, while the other half is all the members (9 out of 20).

With respect to platforms' external economic transparency, 17 out of 20 platforms do not publish their financial statements openly on their websites. However, the level of internal economic transparency is also quite opaque, with 13 out of 20 projects not allowing all of the legal entity members to have access to the profit and loss accounts.

## ***4.2 Economic Model***

### *Economic Orientation and Sustainability*

In terms of the projects' economic orientation, nine out of the 20 projects studied in depth would like to grow progressively, decentralising governance. Seven out of the 20 projects studied aim to escalate without changing their governance model and without the idea of selling the platform in the future. Finally, three out of the 20 are considering selling the platform in the future.

Regarding economic sustainability, most of the projects studied (75%) are still to reach the break-even point. In addition to this, and as detailed in Table 2, there appears to be no clear connection between legal entity and economic sustainability.

*Platforms’ Financing Sources*

The most common sources of funding for platform cooperatives are non-monetary donations from the community and public funds (five out of eight cases). Other important sources include compulsory members’ fees (four out of eight cases), monetary donations, non-monetary donations from external actors, family savings and direct micro-participation (3 out of 8 cases). Two out of eight cooperatives used debt investment and research grants, and one cooperative utilised equity investment and the sale of merchandise. None of the eight cooperatives offered advertising or premium services and/or products to gain funding.

Six out of nine commercial companies used family savings as a funding source. Other important funding sources include public funds, equity investment and debt investment. All sources of funding are used in five out of nine cases. These main sources are followed by the companies offering premium services and/or products (four out of nine cases), compulsory fees (three out of nine), the sale of merchandising and advertising (two out of nine cases), and research grants (one out of nine).

Sources of funding that are important for not-for-profit models remain either insignificant or almost insignificant for for-profit models. Regarding non-monetary donations from the community, non-monetary donations from the external actors, monetary donations, and direct micro-participation, only the latter is mentioned, but only in one case out of nine.

*Platforms’ Labour Models*

Among the alternative models, six out of thirteen cases rely on mixed models, and four out of thirteen cases consider workers in paid-employment recognitions. In the unicorn or extractivist business models, the most used platform labour model was a mixed one (four out of seven), followed by complete dependence on self-employed workers (two out of seven) and paid employment (one out of seven). The most popular model among all cases is a mixture model, meaning that in the platform economy, a combination of the two juridical recognitions exists (self-employed vs paid employee workforce). It is also important to note that just one unicorn platform considers workers in a paid-employment framework, whereas a greater number of alternative platforms consider workers as having paid-employment juridical recognitions.

**Table 2** Project economically sustainable. Break-even point reached (n = 20)

Legal entity type	Break-even point reached	Proportion
Cooperative	1	1 out of 8
Association	2	2 out of 3
Commercial company	2	2 out of 9
Total	5	5 out of 20

Whether workers are paid by the number of tasks/deliveries completed or a fixed amount per hour depends on the type of laboural recognition of platform workers. There are two different models among those recognised as self-employed. A first model, whereby workers are paid per hour or unit of time (3 out of 4 cases), and a second model in which workers are paid per task or deliveries completed (1 case out of 4). Among the business models where the workers are considered paid employees (5 out of 20), they are all paid per hour or equivalent unit of time. Among business models in which a self-employed workforce and a paid-employment workforce coexist with non-consideration of, for example, hosts as workforce, different models are found.

### *Working Conditions and Future Options*

During the interviews, the platform managers were asked about their subjective views of the platform workers' working conditions. Fifteen of the twenty platform managers believed that their workers were working in a safe physical environment, whereas four managers believed that their conditions were unsafe.

A majority of the platforms studied consider that platform workers are learning new abilities and developing high skills when working (thirteen out of twenty), while the other seven platform managers failed to provide a positive answer. Half of the sample studied agreed that platform workers are performing short-repetitive tasks, with 8 out of 20 platforms stating that they were not.

In 14 cases, the platform managers state that their workers earn an hourly salary above minimum wage. In terms of wage quality, a polarised ecosystem exists whereby in 9 out of 20 cases, any legal member is earning twice or more than other members, and in 8 out of 20 cases, there is at least one legal member that is earning twice or more than other members.

### *Geolocation, Algorithmic Management and Gamification Techniques*

Regarding the use of geolocation techniques, most of the platforms (11 out of 20) are not using them, and among those that do, 7 out of 20 stated that they are only using them during platform workers' working hours. None stated that they are constantly monitoring platform workers, i.e. even when they are not working, while two platforms did not give an answer to this question.

A total of nine out of 20 cases studied use algorithmic management techniques: six out of seven unicorn platforms use them, in comparison to three out of thirteen alternative platforms (Fig. 3). Regarding gamification techniques (the use of game elements to incentivise platform workers towards certain behaviours), four of the platforms use them.

Just two of the twenty platforms state that platform workers can reject both algorithmic management and gamification techniques (where used) if they want to. Both of these cases are alternative platforms, which means that no unicorn platform has stated that platform workers can reject both algorithmic management and gamification techniques.

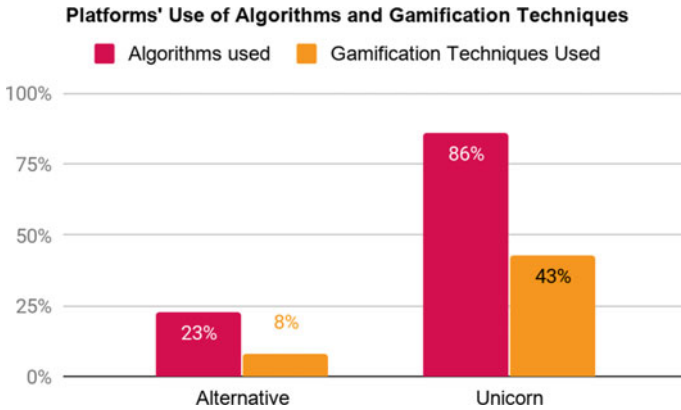


Fig. 3 Platforms’ use of algorithms and gamification techniques per platform type (n = 20)

### 4.3 Knowledge Policies

Two elements (content and data) were analysed regarding knowledge platform policies. The content element refers to the type of user-generated content licence and its categorisation from more open/free to less. It was found that 95% of the 60 platforms studied considered user-generated content under copyright licence, whereas just two cases licenced it under open source.

### 4.4 Technological and Data Policies

Technological practices and policies openness refers to the adoption of software and technological architecture that favour openness and freedom. The results found that 66.7% of the 60 platforms use copyrighted software, and 33.3% adopted open source.

The indicator adopted for categorising data policies was the ability to access data generated by users. Just one project out of 60 made it possible to obtain access to their data through a data commons licence “CC BY-NC-ND” (Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International), the remainder (98.3%) did not specify a licence on their website.

### 4.5 Social Responsibility and Impact

#### *Community Building and Relational Capital*

The majority of platforms studied have more female than male users, but this difference in this type of profile can be considered insignificant. When the proportion of

men and women platform workers is evaluated, this can be explained by the largely male-represented food delivery sector or the largely female-represented care and cleaning sector. However, there is a discrepancy when looking at the gender representation of platform owners. Of those that agreed to answer this question ( $n = 13$ ), only one platform had an equal representation in terms of gender, while the remainder had more men than women as platform owners. Moreover, just 6 of the 20 platforms mentioned having explicit policies to promote gender equality.

The social responsibility measures taken depend on the legal type of the platform. Three out of nine of the commercial platforms are adapted or available to people with functional diversity, whereas six out of the eleven non-profit platforms (cooperatives and associations) are adapted. Furthermore, eight out of the eleven non-profit platforms are promoting the involvement of people on low incomes, while just three out of the nine for-profit platforms are doing so. In addition to this, five out of the nine commercial companies consider that they promote the involvement of people with just a basic education, while seven out of eleven non-profit models do.

In terms of environmental responsibility, six non-profit platforms are promoting the circularity and recycling of materials in comparison to just two commercial platforms. In addition to this, two commercial platforms and two alternative platforms stated that their platforms are hosted on green energy servers. Four non-profit platforms offer a type of service or product improving energy efficiency, and four commercial platforms are doing so. Six of the non-profit platforms are active in the provision of educational materials to increase awareness of sustainable consumption compared to just two commercial platforms.

Clear differences are observed between non-profit and commercial platforms concerning economic responsibility. For instance, nine of the non-profit platforms prioritise social responsibility when choosing service providers compared to two of the commercial platforms.

## 5 Narrow Focus: Fairbnb, Katuma and Smart

This section explains the qualities of the alternative models based on the three platform alternatives being cases in the Star of Democratic Qualities framework (Fuster Morell & Espelt, 2019; Fuster Morell et al., 2020a) and summarises the main outcomes from the in depth stakeholder interviews, surveys, and co-creation sessions (Renau Cano et al., 2021).

### 5.1 *Fairbnb*

Fairbnb is an accommodation rental program with a mission to make the rental process sustainable, fairer, and more rewarding for the whole community. The cooperative believes that its responsible and sustainable community-driven tourism model

is a consistent solution to many of the 17 SDGs set by the UN in the 2030 Agenda (Fairbnb). The platform aims to be a viable alternative to unicorn platforms like Airbnb by implementing the following measures:

- **Social sustainability:** Fairbnb takes a 15% fee of the booking price and donates 50% of its profits to supporting local social and ecological projects to counter the negative effects of tourism and the other half goes towards the costs of Fairbnb, and part of it goes to the local partner, known as the ambassador. The ambassador finds social projects to be funded and looks for lawful hosts aligned with Fairbnb's vision.

In order to facilitate sustainable tourism, Fairbnb also works with local governments to promote regulations and additional policies to tailor the platform to local needs.

- **Collective ownership:** Fairbnb is managed and owned by a cooperative of hosts, guests, neighbours, and local business owners.
- **Democratic governance:** Hosts, users, neighbours, and local business owners collectively decide how and where to reinvest part of the profits, e.g., community cafés, playgrounds and green projects.
- **Transparency:** The platform is dedicated to open data. Data is protected and shared with local administrations when necessary to ensure compliance with local and regional regulations.

### 5.1.1 A Deep Look into Fairbnb

One aspect of work-life balance is the right to disconnect from the platform. Fairbnb does not use any geolocation devices like its unicorn alternative Airbnb. Of those who answered the question, 8 out of 10 workers/ambassadors believed Fairbnb guaranteed the full right to disconnect from internal communication tools and 8 out of 13 stated that disconnection did not penalise them. However, guaranteeing full disconnection as a start-up requires establishing working hours, including the need for breaks, days off, and maximum working hours, as well as respecting the workers' individual needs and responsibilities. Thus, the need to have a sense of when workers and ambassadors are available to meet is important.

All direct workers of Fairbnb learn skills specific to their work, including learning how to use different communication tools that Fairbnb use (mail, chat, and forum). However, the Fairbnb survey revealed that the ambassadors felt that Fairbnb only partially addressed training needs. They suggest that the complexity and diversity of the skills required need monitoring and constant readaptation. The managers further noted that this lack of training causes challenges in creating a shared and consistent organisational culture with all stakeholders and facilitating knowledge exchange. It is obvious that new ambassadors need training on the specificity of working for a platform, for example, skill development regarding legal and tax issues, marketing and communication, business development, and negotiation.

A reflection from the co-creation sessions is that Fairbnb needs to think in terms of learning rather than just training. Training is task-oriented and serves the organisation's needs, whereas learning is continuous and focuses on the individual's needs. As a result of the co-creation sessions, Fairbnb is now redesigning its learning materials for ambassadors, which will gather the main questions, learnings and concerns among the different local communities associated with Fairbnb.

The results of the co-creation sessions also demonstrated the need to create better training regarding health and safety for teleworking. Psychological well-being was highlighted as a result of the isolation of workers and partners, especially during the COVID-19 pandemic. Thus, this emphasised the need for more spaces for bonding and informal exchange, which links to improving workers' right to disconnect from the platform as well as implementing a tool whereby local partners and workers can see each others' availability.

Based on the survey data, Fairbnb has a gender imbalance in all operational levels. Even though more than half of the workers are women, the four senior managers are men, only one-third of ambassadors are women, and three out of twenty-four co-op members are women. Despite these statistics, there is currently no gender equality plan. The survey pointed out that a quarter of the respondents found that Fairbnb was "very little" or "not at all" inclusive. The perceivable lack of diversity and inclusion within Fairbnb can lead to biases in the organisation's processes and the design of the platform.

Fairbnb is conscious of these challenges and is reflecting on how to prevent and tackle potential situations of abuse, including the creation of a Diversity Committee (which will act more as a consultancy and policy entity) and an external conflict resolution body (which will be active day to day as a space to report any abuse). The conflict resolution body will ensure the policies and tools defined by the Committee are followed while managing conflict resolution.

## 5.2 *Katuma*

Katuma is an agro-food consumption platform that connects producers and consumers of agroecological products. The platform is based on commons' platform economy values and was developed by Coopdevs, a non-profit association focused on free and open software to promote social and solidarity economy projects. In relation to the star of democratic qualities, Katuma encompasses the following:

- **Governance:** A membership cooperative governance is planned. Katuma is owned and controlled collectively by local producers and consumers.
- **Economic model:** Katuma intends to fund the platform by introducing membership fees for both producers and users of the platform.
- **Technological Policy:** The platform is developed with open software. So Katuma is able to maintain control of its own data and make collective decisions about how the platform operates.

- **Knowledge Policy:** The contents are under a Creative Commons (BY NC) licence.
- **Social Responsibility:** The project is focused on connecting producers and consumers in terms of social justice.

### 5.2.1 A Deep Look into Katuma

Although the virtual shop owners are not subjected to geolocation and their work is not managed through the platform, digital devices, including email and instant messaging, do have an effect on them. Especially as this role is often done outside the employee's working day. In Katuma's case, there is no system that displays availability, as is the case for couriers of on-demand delivery platforms.

Although platforms like Uber have all their communications embedded in their own platform, and disconnection is possible, for other platforms like Katuma, where other digital devices are relied upon, disconnection may not be enough. It is, therefore, important to identify how people make themselves available and include some mechanisms for the adequate monitoring of time.

As aforementioned, not all work is performed through or monitored by the digital platform as the virtual shop owners perform activities, e.g. meeting with producers, outside of typical work hours. They are considered platform workers even though their work is not all managed through the digital platform. They are considered platform workers because they must access online to perform some necessary and essential tasks for the provision of the service at the request of customers. This stressed the importance of reconsidering what is working time and ensuring that all activities performed and time devoted are monitored and remunerated.

In the survey, 13 out of 16 participants suggested that Katuma contributed in some way to enriching their professional skills. However, what is understood as enhancing "workers' professionalism" is a subjective concept if used without any kind of clarification to establish what can be considered professional. In addition, just 2 out of 16 participants suggested that Katuma solved all their training needs.

Katuma has devoted time and resources to teaching users how to operate the platform. However, due to the platform being constantly updated, these changes require relearning. Even though Katuma developed training in the form of YouTube videos and webinars, some co-creation session participants were unaware of their existence. During the co-creation session, participants suggested the platform develop an interactive manual with a simplified definition of all concepts, and in the long term, the participants voted for the creation of a chatbot and new telegram channels. This will help Katuma to devote its reduced resources to the aspects that users find the most useful.



### 5.3 *Smart*

Smart is a non-profit organisation that was launched in Belgium in 1994 under the name SMartBe. Smart enables workers, entrepreneurs and organisations to invoice, work together with other professionals, and manage a budget on an occasional or a long-term basis (Smart, 2022). The cooperative model allows freelancers to remain autonomous while accessing a range of support services, a more protective employment status, and social security and protection.

- **Governance:** A governing board makes the decisions of the cooperative, and the users are invited once or twice a year to hold an assembly. Voluntary open participation.
- **Economic Model:** All members share the costs of the cooperative's administrative and economic services. Each member pays a €150 initial share capital contribution and a 7.5% services commission. With this capital, the organisation pays members' bills in advance. Future profit will be fully reinvested in broadening services offered.
- **Technological Policy:** There is not a technological platform running yet.
- **Knowledge Policy:** The knowledge generated is not open.
- **Social Responsibility:** The project promotes cultural and artistic activity.

#### 5.3.1 A Deep Look into Smart

Smart is an interesting case since it relies on offering workers some of the characteristics of self-employment underemployment figures. The platform cooperative provides social security at the same time that workers are entitled to flexibility and autonomy regarding both tasks and working time. The organisation shares some characteristics with Katuma and Fairbnb in the sense that working time is not just the time monitored and/or managed by the platform.

Although Smart cannot guarantee work, the platform cooperative does guarantee workers remuneration when the demand drops. Nine out of eleven survey respondents considered that they autonomously decided their own schedule, while only two out of eleven considered that clients had a role. Six out of 11 considered that they had complete freedom over their schedule since they answered that they do not have to work certain hours or days, and they neither have a minimum nor maximum stipulated hours.

In addition to this, despite being Smart employees, 81.8% of the respondents considered that they independently decide their time dedication. But even though workers can refuse tasks at their discretion, this may have negative consequences e.g., a customer may terminate a contract.

In terms of workers' training, even though Smart attempts to promote training and professionalism, training opportunities often do not reach its recipients. This is because of several reasons, including Smart believing that its member should ask for the training they need and members being reluctant to cover training costs.

## 6 Conclusions

This combined research aimed to show the potential contribution of each platform's business model to sustainable development using the Star of Democratic Qualities framework and identify how the sustainable design of the platform economy could contribute to the SDGs. It also intended to identify to what extent platform cooperatives are an alternative to unicorn platforms in terms of working conditions. This was tested with an empirical analysis of 60 platforms and a deep study of three alternatives to platform capitalism: Fairbnb, Katuma and Smart.

### *Platform Economy Models and Their Contribution to Sustainable Development*

Regarding participation in terms of gender (SDGs 1, 5, 8, and 16), it has been stated that, as users, on average, platforms are equal. Despite this, no project that considered itself as having an equal representation in workforce gender terms has been found. In addition, just 6 of the 20 platforms studied in depth mentioned having explicit policies to promote gender equality. This can be found in both unicorn platforms and alternatives, as is the case for Fairbnb, for example, there appears to be a gender imbalance in all operational levels and no gender equality plan in place.

The results show that social responsibility measures in terms of inclusion (SDG 10) differ depending on the type of legal form. Three out of nine commercial platforms are adapted or available to people with functional diversity, while six out of the eleven non-profit platforms (cooperatives and associations) are adapted. Moreover, eight out of the eleven non-profit platforms are promoting the involvement of people on low incomes, while just three out of the nine for-profit platforms are doing so.

Regarding environmental responsibility (SDGs 2, 3, 7, 8, 9, 11, 12, 13, 14, and 15), six of the non-profit platforms are promoting the recycling and circularity of materials, compared to just two commercial platforms. Six of the non-profit platforms are also active in the provision of education materials to raise awareness about sustainable consumption, compared to just two of the commercial companies.

In terms of concern towards economic responsibility (SDGs 11, 12, and 13), the research indicates clear differences are observed according to the different platform economy models. For example, regarding prioritising social responsibility when choosing service providers, it was found that nine of the non-profit platforms studied were actively doing so, as opposed to only two of the commercial platforms.

Regarding economic models (SDGs 1, 3, 4, and 8), the analysis shows that there is a diverse ecosystem in regard to legal entities, with no clear relationship between legal entity and economic sustainability as the majority of the commercial and non-profit platforms (including the three cooperatives studied in depth) are not all economically sustainable. This is partly because, especially in the case of the three pilots, the platforms are in their initial stages, lack funding, and/or have been affected by the COVID-19 pandemic hampering their scalability and sustainability.

Although the proportion of non-profit projects who received public funds is equal to the proportion of commercial companies that have received public funds, there are some differences in the various sources of funding used depending on the legal

entity type. For example, non-profit business models mostly used public funding and non-monetary donations from the community, whereas commercial companies mostly used public funds, family savings, equity investment, and debt investment.

A platform's labour model is also closely related to its economic model. Most platforms studied followed a mixed model with a combination of a self-employed workforce and paid employees (10 out of 20). We, therefore, have to consider that for "mixed models", those who perform commercial activities through the platform are not considered workers of the platforms' legal entities. This combination is also sometimes made as an adaptation strategy to local laws and agreements, whereby in one territory, platform workers are considered self-employed, while in another territory, the workforce—doing the same tasks—is considered paid-employment figures. It is also important to mention that there are cases in which platform workers are not considered as workforce by the platform and instead are considered as "providers" or "producers", with the platform considering itself as an intermediary in which the different users can interact with each other.

Regarding the use of gamification techniques, algorithm management, and geolocation, most platforms, including non-profit ones, find geolocation techniques decisive for the platform's functioning. Seven of the 11 platforms that do not use geolocation techniques were alternative platforms. Moreover, while just three out of 13 alternative platforms use algorithmic management, six out of seven of the unicorn platforms do. No unicorn platform has stated that platform workers can reject both algorithmic management and gamification techniques compared with two of the alternative platforms.

In terms of technological policies (SDGs 9), the findings showed that 66.7% of the platforms use copyrighted software, while 33.3% adopted open-source technological infrastructures. The research observed a high level of copyright or non-licensed website content and found just one out of the 60 platforms allows its content to be downloaded. Thus, there is an apparent lack of consideration of technological policies. It's also important to add that SDGs do not focus at all on data policies.

### *Alternatives to Platform Capitalism*

As well as analysing the different platform models' contributions to the SDGs, this research aimed to assess if platform cooperatives can be considered as alternatives to unicorn platforms in terms of gender equality, work-life balance, and training opportunities.

Both Katuma and Fairbnb facilitate democratic governance, whereby community members can come together to decide the future of the platform and how it should be run. The results from the empirical analysis of 60 platforms also found that alternative platforms like platform cooperatives and associations enable workers and users to actively participate in the definition of formal rules and policies, as well as acting as spaces for workers' collective organisation. It was found that none of the for-profit models studied in depth had established a system for democratic decision-making, whereas 11 out of 13 alternative models had. This is solidified by our previous research on 10 non-profit platform cases in Barcelona (Espelt & Foster Morell, 2019), which found that the majority of the cases accomplished aspects of the commons

star platform economy review at a good level, especially in terms of the non-profit economic dimension (economic model) and open participation in governance.

Although not all non-profits go beyond non-discrimination and promote inclusion and diversity among workers, there is evidence of improvements being made in this regard, such as the creation of a Diversity Committee and an external conflict resolution body, in the case of Fairbnb. A similar case can be presented for training opportunities as although all three platform cooperatives promote training and professionalism, reflections from the survey and co-creation sessions suggested that training needs to be accessible, financed by the platform, and updated regularly.

It is apparent from the results that platform cooperatives are less likely to use geolocation devices and algorithm management techniques compared to unicorn platforms. For example, six out of the seven unicorn platforms studied in depth used geolocation devices and seven of the 11 platforms that did not use geolocation techniques were alternative platforms. Moreover, while just three out of 13 alternative platforms use algorithmic management, six out of seven of the unicorn platforms do. But two of the alternative platforms stated that the platform workers could reject both algorithmic management. These results are backed up by the in depth study of Fairbnb, Katuma, and Smart, as they all use simple algorithms to guarantee the performance of services but do not deploy algorithmic management. Despite this, in Smart's case, even though workers can refuse tasks at their discretion, this may have negative consequences, e.g., a customer may terminate a contract.

For many digital platforms, except in some cases like Uber, not all work carried out is monitored or managed by the platform, as work is often done outside the platform and outside the employee's workday. For example, answering emails, meetings with clients, etc. So, although the stakeholders studied believed that they were guaranteed the right to disconnect without penalisation, especially in Fairbnb, Katuma, and Smart's case, guaranteeing the full right to disconnect from the platform and communication tools can be difficult.

This ties in with the importance of platforms to implement mechanisms for the adequate monitoring of time, as well as establishing maximum working hours, breaks, and days off. Because of the nature of platform work, including the freedom it provides, platform workers do not have a minimum, or maximum stipulated hours, and the platforms (both unicorn and platform cooperatives) do not often monitor their rest periods. For example, Smart does not monitor if members rest at least 14 h every 24 h.

To sum up, this chapter contributes to previous literature that emphasises that different platform models coexist in the platform economy, and each of them contributes differently to sustainable development. A good connection was observed between the SDGs and the Star of Democratic Qualities, demonstrating the importance of distinguishing the pro-democratisation and sustainable qualities of the different platform models in order to design public policies according to these differentiations. However, it is also important to note that no digital platform will fulfil 100% of the five democratic qualities or contribute to all SDGs.

Furthermore, the chapter shows that, beyond unicorn platforms, an alternative model of collaborative economy exists based on democratic qualities and the principles of cooperativism. Thus, this combined research report agrees with previous studies on social economy and cooperatives that point to cooperative models offering better working conditions compared to “capitalist” businesses (Burdin & Dean 2009; Roelants et al., 2014). However, it is important to note that the alternative platforms studied are either in their initial stages or are experiencing problems regarding scalability, economic sustainability, funding, and gender equality. Further research, could complement the analysis developed in this research by expanding the number and types of platforms analysed. However, an important strand of the literature should also focus on how different public policies may enable alternative platforms to succeed counterbalancing all these drawbacks.

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# Labour Policies for a Fairer Gig Economy



Beatrice Dassori and Annamaria Donini

The chapter will consider both the current legislative situation and PLUS proposals in relation to platform labour regulation. While in the first part of the article we will frame the legal status of platform labour around Europe and the ongoing regulatory initiatives, in the second part we will present the PLUS Charter for Platform Workers as a useful starting point for building a fairer gig economy. In conclusion, we will evaluate this proposal in relation to the current debate, highlighting its limits and opportunities for further legislative initiatives.

## 1 The Need for the Protection of Labour Through Digital Platforms

Digital platforms have introduced a peculiar economic model in which anyone can make available, through specific spaces on the web, underutilized assets or activities performed by him or herself (Ness, 2023; Drahokoupil & Vandaele, 2021; De Stefano, 2016). At the same time, anyone interested (“natural persons” or companies) can access these goods or services. In response to this massive change, the European Commission’s first document in 2016 addressing the topic (A European agenda for the collaborative economy, COM (2016) 356) highlights the risks to the traditional markets caused by the deregulated platform economy, especially for what concerns

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the rules for market access, consumer protection as well as fiscal discipline and also labour relations.

After some initial hesitations, it became evident that “peer-to-peer” exchanges driven by altruistic purposes or aimed at promoting solidarity or environmental protection rarely occur on digital platforms. In most cases, these IT infrastructures host business operations involving the sale or rental of goods or the provision of services through the performance of work activities. When digital platforms gather organizations or individuals interested in offering or receiving services for a fee, the activity carried out through physical or intellectual energies for the benefit of another party (the platform, a service user, or a customer) must be seen as “work” worthy of consideration and protection by the legal system.

Sometimes a platform became a simple enabler of matching labour demand and offer. Even in these cases, platforms are never passive entities, because the actions of the workers depend, at least in part, on the contractual terms set by the digital enterprise. The intensity of the platform’s control or interference varies widely; sometimes it is minimal and in fact leads to the simple provision of matching demand and supply tools; on other occasions, the general terms and conditions assign to the ultimate user (client) the possibility of defining certain conditions for the performance of the work.

Other types of platforms are being used to outsource some (or all) stages of the production process of a good or service, assigning micro-units of it to workers involved in “non-standard,” often casual, forms of employment, formally recognized as self-employed (on the different types of platforms, Prassl & Risak, 2016). The conclusion of work contracts on the digital platform reduces to zero the so-called transaction costs, i.e., the cost of finding and choosing workers. As a result, the assignment of tasks to available workers from time to time becomes the most convenient choice.<sup>1</sup> This model ensures maximum adaptability of the workforce to market demands, but at the same time excludes the possibility of access to standard labour protections. Access to protections becomes even more complex when the platform primarily only organizes the sale or rental of goods but complements this type of commercial exchange with the performance of other services (promotion, maintenance, reception, ...) carried out by workers.<sup>2</sup>

In both cases, these are socio-technical infrastructures in which the work activity organized by the platform corresponds with the specific service offered in the market, or is collateral to another main asset that is the object of the business activity. In both circumstances, the existence of work that is legally relevant and requires protection cannot be denied. The recognition of rights for these forms of work has followed different paths that have sometimes led to overlaps and coordination problems. The

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<sup>1</sup> However, the CJEU in the so-called “Uber case”, C-434/15, identified some useful criteria for identifying cases where labour, even if fragmented, is an essential element of the overall service offered by the platform. When a digital platform, such as Uber, exercises significant control over labour, this activity is not just a brokerage service but constitutes “an integral part of an overall [transportation] service” (Donini, 2023).

<sup>2</sup> See CJEU in the Airbnb case, C-390/18.



goal of adequate access to labour protections for platform workers can hardly be said to be concluded.

## 2 Legal Status of Platform Worker: General Terms and Conditions Versus Statutory Regulation

The rules governing the relationship between platform, on the one hand, and workers and users, on the other, (regarding access to the platform, performance of activities, payment systems, and limits to users' freedom of expression) are defined through standard contractual forms or general terms and conditions that define the type of contract and the mutual obligations.

Instead of individual agreements, digital platforms prefer contractual standardization, which, as a whole, composes an autonomous regulation with a claim to self-sufficiency from state regulations. The platform's determination to avoid the application of statutory protective legislation, together with the delay of public decision-makers in catching the innovative elements of these production processes, encouraged the emergence of an autonomous system of contractual regulation. Such regulatory systems aspire to fully replace the legal system and, in particular, mandatory labour regulations (as well as consumer protection regulations), and according to some authors, transform the digital platform into a different typology of social system. Through a process of auto-constitutionalism, the regulatory systems of digital platforms place themselves outside the jurisdictions of the countries in which they offer their services (Sheffi, 2020; Smorto, 2015).

A system that claims to regulate labour independently of the legislative framework must come to terms with a fundamental principle underlying labour law. Where the actual performance of the labour relationship, even in conflict to the contractual provisions, presents the features of employment, the discipline specifically provided for employee shall be applied to those workers. The parties are free to choose the type of contract, opting for subordination or autonomy, within the limits allowed by the above-mentioned principle: the application of labour law may not be excluded if the relationship has the distinctive elements of subordination.

The general terms and conditions established by the platform cannot therefore in all circumstances regulate the employment relationship. If the relationship between the platform and the employee does not correspond to the type of contract (self-employment contract) chosen by the parties, the regulation of the relationship must reflect the elements resulting from the facts relating to the actual performance of work and not that resulting from the *nomen iuris*. In the absence of intervention by inspection bodies or court rulings that allow the effectiveness of public protective legislation, however, the contract entered into between the parties constitutes the basis for the actual conduct of the relationship. This happens because the contract defines the mutual obligations and, if not opposed in court, the parties are obliged to comply with its content.

There is an increasing trend at the institutional level to bring platforms back within the rules of labour law. To increase the level of effectiveness of employment protection also for platform workers, national and European legislative interventions have focused on labour regulation, restricting the space for autonomous contractual regulation of platforms.

### **3 Platform Labour Protection in Member States Labour Law**

Despite the delay in legislative action by European institutions, several Member states, also as a result of actions brought by the social partners, have adopted specific regulations for digital platform workers. In addition, domestic courts have been involved in many litigations on the legal qualification of self employed contracts between workers and platforms. Traditional legal categories (subordination, power of control, and disciplinary power) have been interpreted by courts based on the specific characteristics of platform work. As a result of both policymakers' action and case-law, two different approaches can be traced: according to the first path, platform workers were considered subordinate or otherwise entitled to receive the protections provided for employment relationships. A different approach has been directed towards the construction of specific guarantees for platform workers with the aim of compensating for the conditions of economic and contractual dependence that can also be found in self-employment.

#### ***3.1 Extension of Traditional Protections Centred on the Employment Relationship***

Most case-law decisions at the international level lean towards subordination, or tend to give platform workers the same protection as those normally assigned to employment relationships (Pacella, 2017).

About the first solution, several European Higher Courts recognized the subordination of platform workers. In Spain Tribunal supremo español, 25 september 2020, rec. 4746/2020 (Fernandez Avilés & Peres Díaz, 2021; Todoli Signes, 2020), in France Cour de cassation, Chambre sociale, 28 November 2018, n° 1,720,079 (Garbuio, 2019) and in Germany Bundesarbeitsgericht, 1° December 2020, 9 AZR 102/20 (Gramano & Stolzenberg, 2021). In Italy, Tribunale di Palermo 24 november 2020, n. 3570 (Nuzzo, 2020), recognized the existence of a subordinate employment relationship between a platform and a rider, due to the disciplinary and managerial powers exercised by the platform. In particular, those powers were exercised through setting up an «orderly set of activities» that the worker was required to perform and

through the application of atypical sanctions in case of violation of the rules (Bavaro, 2020; De Simone, 2019; Razzolini, 2020).

Many Italian courts, as well as the Supreme Court, have excluded the existence of an employment relationship but have held that platform workers are hetero-organized collaborators. Therefore, the discipline provided for subordinate employment contracts applies to them according to art. 2, d. lgs. n. 81/2015 (about this type of collaborations, see Zoppoli, 2016).

In Italy Corte di Cassazione 24 January 2020, n. 1663 (Ichino, 2020) has found in the relationship between the platform and the rider the requisites demanded from art. 2, co. 1, d.lgs. n. 81/2015 for the application of the discipline of the employment relationship. It is also worth mentioning, despite the UK's intervening exit from the EU, that the English Supreme Court has similarly regarded Uber drivers as "workers"—an intermediate category between employee and self-employed worker (see Pietrogiovanni, 2019). The Court found the conditions required by 230(3)(b) Employment Rights Act to consider drivers as workers: the existence of a contractual commitment to perform work or service for Uber, the performance of the work activity in a personal manner, and the impossibility of considering Uber a mere customer of the drivers.

The Spanish legal system has followed the path of equating, by legal presumption, platform workers with employees. By Spanish Real Decreto Ley no. 9/2021, it was established that when the work activity consists of the delivery or distribution of goods and is organized and controlled directly, indirectly, or through algorithmic management, it falls within the scope of the Estatuto de los Trabajadores (Baylos, 2021). The presumption operates regardless of any investigation on the intensity of the powers exercised by the platform. In a partially similar intervention, in Portugal, Law No. 45/2018 explicitly extended the presumption of subordination, already provided for in the Código do Trabalho, to the relationship between the driver of a private vehicle and the TVDE operator, i.e., the licenced company that performs the passenger transport service and is the only entity authorized to enter into an employment contract. In this model, however, a third party -the transport operator- who stands between the platforms and the drivers becomes the employer, removing any responsibility related to drivers' labour relations from the platforms.

The mentioned decisions answer in the affirmative to the question of the adaptability of the work protection system based on subordination in the face of innovative modes of performance. The solution of the automatic extension or by the legal presumption of the statute of the employee applies guarantees and protections according to the abstract logic of the legal type of employee work. However, the risk is to leave a large number of workers on digital platforms unprotected.

### ***3.2 Protection in the Wake of Self-Employment***

Equating platform workers with employees is not the only path followed. Other legislative measures have followed the goal to offer protections to self-employed

platform workers (Aloisi, 2022; Biasi, 2023). In this group, we can consider Loi Travail n. 2016-1088 and Loi d'orientation de Mobilités 2019-1428 in France and d.l. n. 101/2019, conv. in l. n. 128/2019 in Italy (Donini, 2020; Gomes, 2020). They both share the intent to provide a set of minimum rights for platform workers regardless of the legal nature of their contract, designed in relation to the features of platforms' productive organizations and according to the specific protection needs of those who work on them. Both regulations refer to the transport or delivery sector, but only in cases where the action of the digital operator in the definition of working conditions has a certain intensity. It is precisely the peculiarity of work qualified as autonomous but in fact subject to the control of the platform that makes it difficult to identify a field of application for these bodies of legislation.

According to the France legislation, digital platforms are entitled to adopt "social charter" with the aim to guaranteeing themselves from the risk of different contractual qualification; but Constitutional Court stated that the attribution of rights through social charters can never avoid the qualification of workers as employees, if they present the corresponding characteristics.

Finally, it can be pointed out that both Spanish and English legal systems already provided intermediate categories between employment and autonomy. Some platform workers could fall into these categories, as long as the bond that binds them to the enterprise is not so intense as to integrate a case of subordination. We refer to the so-called TRADE, economically dependent self-employed worker (Ley 20/2007), in Spain and to the figure of the "worker" in English law (Employment Rights Act 1996, s 230(3): workers who fall under these categories are accorded certain basic rights although not the full corpus provided for subordination.

## 4 Platform Labour Protection in EU Labour Law

As we have seen, the business model of digital platforms allows the use of self-employment contracts even in cases where the existing employment relationship lacks the autonomy and independence that should distinguish self-employment. As a result, platform workers cannot enjoy the rights and protections usually accorded to employees.

This widespread "misclassification" of the labour relationship pushed the European Institutions to take steps to guarantee platform workers protections and rights corresponding to the actual conditions under which their work is performed (Allamprese et al., 2022; Eurofound, 2021; Eurofound & ILO, 2017; Forde et al., 2017).

The main steps taken by the European institutions fall within the framework of the European Pillar of Social Rights (Deinert, 2022; Ratti, 2021). The Pillar proposes a different approach than previous European legislation, promoting the achievement of adequate social protection for all forms of employment. In the past, the labour protection offered by the main social directives was usually guaranteed to those who were defined as "workers" in the different national legislations. Over time, the goal

of not undermining the effective implementation of the directives led the Court of Justice to develop a European notion of “worker” (which is used, for example, in Directive 2019/1152/EU). Instead, the principles expressed in the Pillar, set within the purpose of ensuring effective implementation of social rights, propose actions aimed at extending social protections to all workers. Along these lines, workers should be guaranteed fair and equal working conditions, access to social protection and training, irrespective of the type and duration of the relationship (see article 5, article 12, article 15).

The purpose of ensuring adequate forms of protection for all forms of employment was pursued with the Proposal for a directive presented by the Commission in December 2021, COM(2021)762 finally addressed to the protection of platform workers. The proposal “on improving working conditions in platform work” is one of the most significant legislative initiatives in the current European social law. The legislative approval path has not yet been completed, and the text currently is still under discussion among the EU institutions. In June 2023, the Council reached a new agreement on which interinstitutional negotiations will continue.

This proposal for a directive is primarily aimed at improving working conditions and granting minimum rights to those who perform platform work. The measures proposed seek to tackle the consequences of the opacity and obscurity of the algorithmic systems used by the digital platforms and also to overcome the information asymmetry between workers and platforms. Particularly in court proceedings, these circumstances significantly hamper the chances of correctly classifying employment contracts. The draft directive has therefore introduced a rebuttable presumption of subordination, which would make it possible to uncover cases of bogus self-employment and guarantee these workers the protections provided for employees by European and national legislation and established by collective agreements. Accordingly, labour platforms «shall comply with the corresponding employers’ obligations» (art. 3).

The introduction of a presumption of subordination is a significant innovation in European social legislation. The proposed presumption can be seen as an alternative method to the introduction of a legislative definition of “worker”—long opposed by social partners, and especially by those representing employers (Barbieri, 2021; De Stefano, 2022).

This definition was first formulated in the leading case *Lawrie-Blum* (CJEU, 3 July 1986, C-66/85, see Freedland & Kountouris, 2017) and it is now quite settled but still has some fluctuations. In general, the interpretation of “worker” given by the CJEU involves someone that, for a certain period, performs services for and under the direction of another person, in return for which he receives remuneration. But recently in the *Yodel* case (22 April 2020, order, C-692/19) the Court said that a worker cannot be classified as a “worker” within the context of the *Time Directive* (2003/88/CE) when he can use subcontractors or substitutes to perform the service, when he can accept or not accept the tasks offered by his putative employer and when he can fix his hours of work to suit his convenience rather than solely the interest of the putative employer. These specifications may narrow the scope of application, and they do not consider the fact that the actual conditions of work performance may be

significantly different from what is written in the general terms and conditions (Prassl et al., 2020; Hießl, 2022).

Compared to this notion, the presumption is a considerable innovation because it thus no longer requires that the worker meet the three elements identified by the Court of Justice to have access to social protections (undertaking genuine and effective work, receiving a wage, being under the direction of someone else). Likewise, any margin of freedom in setting one's own time and manner of performing work would no longer be sufficient to exclude the worker from access to rights.

The proposal on which institutional negotiations are now taking place states that a relationship between a «digital work platform» and a «person performing work through a digital platform», as defined in Article 2 of the proposal, is considered an employment relationship. This formula seems to have translated into legal terms an empirically derivable reality after a decade of growth of digital platforms. The ordinary business practices chosen by platforms lead to the existence of employment relationships. Work is carried out under conditions of dependency because platforms normally exercise supervision and control over work and, as stated in Recital 24, “direction and control, or subordination, are an essential element in the definition of an employment relationship in the Member States and in the case law of the Court of Justice”. The presumption is rebuttable, and the platform will be able to prove the self-employed nature of the employment relationship by proving a group of indices, i.e., concrete circumstances that are deemed compatible with a self-employment relationship.

This approach pursues a universalistic protection but still graduated, according to the specific features of work relations: while the presumption allows workers to have access to all the rights usually recognized only to employees, other provisions are directed to persons performing platform work who do not have an employment relationship. All those who “perform work through digital platforms, regardless of the contractual designation of the relationship between that individual and the digital labour platform” will have access only to a set of measures for the case of recourse to algorithmic management (art. 6, 7, and 8). These measures are built on the model of the individual rights recognized to the citizen-worker in line of continuity with the GDPR.

Finally, the proposed directive requires platforms to inform and consult workers' representatives about the adoption of automated monitoring and decision-making systems and their operating characteristics.

## 5 Charter for Platform Workers

### 5.1 *An Enduring Dilemma: Employee Centred or Transtypical Protection?*

The goal of identifying and suggesting pathways for the construction of appropriate protections for platform workers can only be pursued after resolving a fundamental question. We need to figure out whether, in the current context, the qualification of work as employment has to be considered a prerequisite for access to protection, or if, on the contrary, protection beyond the existence of an employment contract could be more appropriate, effective and, definitely, in line with the challenges posed by the new digital context. The problem arises because, while much of the national jurisprudence and systems propose solutions that lean towards subordination (see 4.1. and see also Barbieri, 2019), there is a pressing demand for protection beyond the contractual type. The contractual classification approach does not seem able to follow the rapid pace of technological evolution and for these reason a substantive transtypical approach may be preferred (see for instance the “remedial approach”, Treu, 2017; for a recent synthesis Bellomo, 2022).

The transtypical protection, that is the alternative to the approach polarized on the subordination, consists in a «transtypical extension of the protections to circumstances not identifiable with the type of the subordinate job» (Perulli, 2017, translated by the A.; see also the innovative proposal of Freedland & Kountouris, 2011). It means establishing legal instruments of protection which are capable of adapting to changing social and economic conditions without reducing their effectiveness and without being conditioned by the recurrent doubts relating to the continuing viability of the division between autonomy and subordination and the evoked crisis of the subordination.

The Charter on Digital Workers Rights, elaborated in the context of the PLUS project, adopts this substantial (and non-formal) approach, more in line with the protection needs expressed by workers and social partners. To avoid unreasonable differentiations based on the type of contract, it is necessary to focus on the protection needs of the “person who works on a platform” and assign indiscriminately certain fundamental rights anytime there are certain characteristics of economic activity that can be verified in concrete terms (irrespective of the legal qualification of employment relations). Other rights should instead be reserved, appropriately graduated according to the intensity of the bond, to those who work in conditions of dependence and subject to the power of the employer (Martelloni, 2020; Treu, 2017; Tullini, 2020).

Following this approach, a modular system of job protection can be set up. This kind of system places on the first step protective measures independent of the verification of the legal qualification of the relationship and provides access to stronger guarantees when the work is organized or directed by an employer. In this way, the Charter identifies an essential minimum content that must be recognized and guaranteed in the contracts of platform workers: these rights go beyond the choice of a

specific contractual form. In the light of the foregoing considerations, it can be said that the Charter offers a transtypical protection.

The main point is that the entitlement of rights should not depend on the distinction between employment and self-employment, because a minimum level of protection should apply to all people working through platforms irrespective of their employment status.

From this perspective, it is not useful to set up a new contractual form. If, from one point of view, it could also clarify the legal situation of platform workers and reduce uncertainties in case of litigation, on the other hand, it will cause an extra complexity connected and might increase the risk of misclassification. This risk clarifies the reason why there is no intention to create a “third” employment status nor a new contractual form at the EU level.

## ***5.2 A Charter for the Protection of Platform Labour Through Individual Rights***

The Charter aims to provide a transtypical, extensive, and modular protection. With regard to the transtypical character of the protection, it has already been said that it consists in offering protection regardless of the type of employment. The extent of protection refers to the application field of the Charter, which is applicable beyond work in the legal notion. The modulable character refers to the structure of the Charter and it expresses the possibility of modulating the protection according to the different ways in which work is organized by the different platforms and also depending on the different intensity of the bond between the worker and the platform. Since the first element (the transtypical protection) has already been dealt with, it is now necessary to dwell on the other two, namely the scope of the Charter and its structure.

With regard to the application field and the broad nature of the protection, it should be stressed that most of the activities carried out by the platform workers can be considered labour activities also from a legal point of view.<sup>3</sup> But it can't be said for all of them.<sup>4</sup> In view of this fact, which may leave a large number of workers on the platforms unprotected, the Charter refers, with different extent, both to those who carries out a labour activity, irrespective of the possibility to consider these activities such as work, and to those who performance work activities. More specifically, the first category includes anyone who carries out labour activity for a digital platform, directly but also indirectly or in a collateral way, or in an episodic manner.

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<sup>3</sup> This holds for Deliveroo, Uber and Helping: the activities of riders, drivers and cleaners have to be classified as work, conveyed either in an employment contract in the form of subordination or self-employment.

<sup>4</sup> In Airbnb the host does not offer his or her work to users but a house or an apartment for rent. Although it is not possible to consider the activity of making a property available as work because there is no expenditure of physical energy, the collateral activities provided by the host are strictly business activities and also contribute to the economic activity of Airbnb.



About the structure, the choice made by the Charter is linked to the consideration that digital platforms have different characteristics as regards the organizational modalities of work and the intensity of the constraints that they impose on work activities. For this reason, the Charter enhances the link between the variety of labour activities and the variety of rights, selecting the rules and guarantees to be applied in relation to the actual needs of the working person. It does not mean taking a case-law and remedial approach, but it means trying to develop a digital labour rights statute that is applicable to the different contexts of different platforms, in line with current reality.

In this light, the Charter does not identify a single set of rights for all platform workers, but identifies a corpus to be modular in order to achieve the protection of these forms of work, through the provision of two different sets of rights. Then the Charter proposes a graduated assignment of rights, distinguishing between those to be assigned to “platform workers” and those to be assigned to “person performing platform work”, allocating rights, differently graduated, according to the factual circumstances. The aim is to offer a model for regulating labour through digital platforms that can protect workers by being tailored to the specific characteristics of this business model and to the different ways in which labour is carried out. This combines a universalistic basis of safeguards and a selective approach to social protection that considers the different organizational modalities and the different links between platform and worker.

According to the different features of the labour carried out through platforms, the Charter proposes a set of rights organized in concentric circles. The first larger circle comprehends several fundamental human rights connected to the fact that someone carries out a labour activity, irrespective of the fact that this is the subject of a work contract, whether in the form of self-employment or employment. The narrower circle comprehends other rights linked to the performance of work activities, regardless of the contractual type.

These two sets are not completely separated but, on the contrary, are intertwined and they can be used by the policymakers at each level to build a framework linked to the business model that they wish to regulate. Following the same logic, a digital platform may also decide to combine them, with different balances, into a specific framework to protect workers’ rights according to the organization of the business at a specific moment.

We can list the first group of rights and specify what is the need for protection that each right tries to fulfil:

1. the right to proportionate personal data processing: platform workers (in the broad sense) are particularly exposed to the risk of abuse in the processing of personal data, since their relationship with the platform begins, continues, and ends with the collection and processing of data that are essential for the organization of the business activity;
2. the right to information on contractual conditions (see ILO, Issa and OECD, 2023; ILO, 2022): it comes from the lack of transparency and predictability regarding contractual conditions, often linked to the lack of a contract;

3. the right to transparent use of algorithms (see Galière, 2020): the algorithm, that is the main gear of the digital platforms, governs the labour relationship and job performance like an “invisible hand” based on mathematical calculation often unintelligible;
4. the right to non-discrimination: the use of algorithm management could increase the risk of discrimination, because the parameters used by the algorithms may comprehend bias and prejudices;
5. the right to a transparent and fair reputational rating system: the worker is subjected to a constant and capillary reputational control and the reputational profile has considerable importance as a high reputation is the key to obtain more or better work opportunities;
6. the right to move to another digital platform: the platform owns the “digital reputation” of the workers, increasing workers’ dependence from a specific platform;
7. training rights: the lack of acquisition, training, development, increase and portability of expertise prevents the acquisition of a professional qualification;
8. the right to health and safety protection (see EU-OSHA, 2017): platforms workers are particularly exposed to physical and psychosocial risks (moreover, the health and safety issue shows its relevance during the Covid-19 Pandemic);
9. the right to fair termination: an unjustified dismissal without notice does not allow workers to organize their working and personal life, also making it impossible to react to the withdrawal;
10. the right to disconnect: due to the specificities of the platform world, the risk of an uncontrolled expansion of the time spent on work is really high, and it can also cause interference between private and professional life such as becoming a potential cause of mental stress.

We can also list the second group of rights, additional to those of the first group, applicable only to “digital platform workers” in a stricter sense, who are regularly embedded in the platform’s production process, regardless of whether they are employed or self-employed:

1. the right to a maximum and a minimum number of working hours: it is linked to the need to find a balance between flexibility and safety and predictability requirements, also considering that the working time is strictly related to wages and health issues;
2. the right to fair and decent remuneration: there is a high risk of low or undetermined wages, that are usually related to the single uncertain performance;
3. collective rights: the development of local aggregations and the actions they undertake make clear the existence of homogeneous interests and the need for collective action in the field of platform work, despite the fading of places and working time.

The measures proposed in the Charter help to avoid mere marketing or “social washing” operations and, on the contrary, provide balanced and effective models of rules.

It is important to specify that, following the system of European legal sources, the Charter on Digital Workers Rights would follow a “principle of non-regression”. In this light, the Charter applies without prejudice to any other rights conferred on workers by legal acts of the Union, of the Member States whose legislation applies, and of collective agreements. Nothing in the Charter shall be intended as a valid ground for reducing the level of protection already afforded to workers by the applicable legislation. Any more favourable conditions laid down by the national legislation of the Member States or by collective bargaining shall in any case remain applicable.

## **6 Limits and Opportunities: The Future of Platform Labour**

Working on digital platforms can benefit workers, businesses, and society at large. However, working on digital platforms raises many challenges in terms of job continuity and income, decent working conditions, social protection, use of skills, freedom of association, and the right to collective bargaining.

To ensure that the opportunities for work and income generated by platforms can be fully exploited, the important transformation that has affected work, breaking down barriers of time, space, and place, must be accompanied by a change in the structure of safeguards. The protection must necessarily be incorporated into a substantial dimension to ensure effective protection for platform workers.

In this context, a more effective and coherent approach is needed: this will only be possible through policy coordination and dialogue at the EU level. A great step forward has been made with the EU Proposal for a Directive that has addressed the issue in an innovative way in its complexity. With this intervention, it seems that the theme of “freedom to work” of art. 15 of the Charter of Nice, that is to be able to choose loads, times, and modes of activity (today more accessible in the light of technological innovations), without being deprived of the fundamental safeguards, has finally entered the supranational agenda.

The Charter constitutes an elaboration of some of the main results of the project, but it is also a policy document, useful for the construction of a corpus of protections better suited to the real needs expressed by the platform workers. For this reason it is a regulatory model, irrespective of the level of protective measures that have been or will be introduced in the Member States as well as in the EU, that can be a useful “starting point” for trade union claims and collective bargaining actions: both at company level and sectoral level, Unions and workers’ representatives could take this list of rights into consideration when preparing specific claims. Alongside a universalistic extension of some fundamental rights (first group of the Charter), other protections (second group of the Charter) are recognized to platform workers who are regularly embedded in the platform’s production process, independently from being

employee or self-employed. This gradation between universality and selectivity of protections may offer an appropriate model for claims and experimentation.

The entitlement of the right to collective bargaining by self-employed workers has always been hampered by the fact that according to the Court of justice self-employed workers are, in principle, undertakings. From this assimilation follows the application of article 101 TFEU and the prohibition of agreements between undertakings restricting competition within the internal market (e.g., if they directly or indirectly fix selling prices or any other trading conditions). This aspect is currently evolving. Indeed, the European Commission has presented the guidelines “on the application of Union competition law to collective agreements regarding the working conditions of solo self-employed persons” (C(2022)6846 final). These Guidelines expressly exclude from the application of Article 101 TFEU the collective agreements of platform workers when they constitute the result of collective negotiations and when they regulate the working conditions.

Then, finally, the Charter could play the role of a good practice to be implemented by platforms. The voluntary adoption of a virtuous model of worker protection based on the Charter of Digital Workers Rights can bring advantages for both workers and platforms, contributing to establishing protections for platform workers comparable to those guaranteed for standard workers, and preventing mechanisms of downward competition to the detriment of the quality of the service offered.

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# Engaging Stakeholders with Platform Labour: The Social Lab Approach



Raúl Tabarés, Tatiana Bartolomé, and Jorge García

## 1 Introduction

In recent years, and especially since the consolidation of the Web 2.0 phenomenon in society, new digital platforms arising on the internet have reshaped various economic sectors and societal domains (van Dijck et al., 2018; Tabarés, 2021). This technological disruption derived from the internet has, in a brief period of time, led to the establishment of companies (commonly based in the US) that promote business models grounded on the intermediation of services and articulated through digital platforms that gather, store, use and reuse data provided voluntarily and/or involuntarily by millions of users for its subsequent monetisation (Gillespie, 2010; Srnicek, 2017; Tabarés, 2018; Terranova, 2000). The inrush of digital platforms into business and society has been framed by several scholars as a “platform economy” (Helmond, 2015; Kenney & Zysman, 2016). This is commonly considered a new paradigm in business that is producing profound consequences in various domains such as work, urban planning, mobility, tourism, housing and/or delivery, among others (Chicchi et al., 2020; Guttentag, 2015; Scholz, 2017; Woodcock & Graham, 2020).

The rise of the platform economy has profound economic, legal, societal and ethical implications across Europe. Many of these platforms operate in various locations around the Union, extracting considerable added value in the form of data both from platform workers and platform users. These platforms exert a series of multiple effects on a large number of European cities, often becoming problematic in various ways, such as through an increase in traffic congestion (Uber), a mass influx of tourists in particular neighbourhoods (Airbnb) or the promotion of “dark kitchens” in cities (Deliveroo). In addition, regardless of how these platforms contribute to the generation of economic value in different sectors such as tourism and mobility, they

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also promote models that maintain workers in a state of false self-employment due to their specific “terms of use”, exerting significant control and pressure on platform workers through their algorithms (Rosenblat, 2018). This has been the subject of a recurring legal battle in many countries across the EU, and several lawsuits have forced digital platforms to formally hire platform workers, cease operations or change their business models in numerous EU countries.<sup>1</sup>

At the same time, digital platforms have huge implications for the maintenance of the European welfare model, and they also raise numerous questions on how to engage the various actors in the many ramifications involved. In this sense, multi-stakeholder engagement processes are seen as crucial in order to have a plurality of voices that can assess and contribute towards the development of a better regulation and legislation in the European landscape. Approaches related with co-creation, experimentation and prototyping can help make policymaking more porous to societal needs and the demands of different stakeholders. In this respect, we have witnessed during the last decades the emergence of various forms of multi-stakeholder collaboration forums that are commonly framed as living labs, media labs, policy labs or social labs (Estalella et al., 2013; Romero-Frías & Arroyo-Machado, 2018; Romero-Frías & Robinson-García, 2017).

The appearance of these collaborative spaces has provided significant opportunities to establish forums where different stakeholders can express and exchange their views and opinions on particular issues, as well as work together on experimental solutions developed on a bottom-up basis that can help the public administration to develop novel solutions (Dekker et al., 2020). These “safe spaces” can help policymakers to obtain new perspectives and approaches, co-creating, testing and experimenting with new potential solutions through the involvement of different representatives of academia, industry, public administration and civil society organisations (CSOs) (Tabarés Gutiérrez & Bierwirth, 2019). The objective of these labs is to address the different complexities, particularities and demands of modern society whilst representing diverse interests and voices.

In this chapter, we would like to assess the potentialities of these joint experimental spaces for collaboration, exploring the insights and lessons that can be extracted from a particular lab established in a European project. The object of this study is The Social Policy Lab (from now on SOPO Lab), established in the Platform Labour in Urban Spaces (PLUS) project.<sup>2</sup> We focus on this lab to try to understand what kind of opportunities for collaborative policymaking it presents. In particular, we question how social labs can contribute to facilitating mutual understanding and creating a common ground between different stakeholders affected by the economic, labour and socio-ethical implications of digital platforms across the EU.

The structure of the chapter is as follows: the next section offers a brief review of the literature associated with social labs; the third section explains the methodology employed during the lifespan of the SOPO Lab and its components; the fourth

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<sup>1</sup> See for instance the “riders’ laws” passed by the Spanish and French governments. <https://osha.europa.eu/en/publications/spain-riders-law-new-regulation-digital-platform-work>.

<sup>2</sup> The PLUS project is a Horizon 2020 project funded by the EU. See <https://project-plus.eu/>.



section presents the findings of our study and discusses the main implications of these findings.

## 2 The Social Lab as a Methodological Approach

Social labs have emerged in different parts of the world as a response to the most pressing social challenges that humanity is currently facing. These new forms of organisation and participation have grown significantly in recent years (Takeuchi et al., 2014) and their origins can be traced back to innovative pioneers in education (Tabarés Gutiérrez & Bierwirth, 2019). The theoretical background that is commonly associated with social labs is framed as “experiential learning” (Kolb, 1984) and emphasises a meaningful, contextualised and critical form of learning connected with the particular routines and realities of learners. In this regard, pioneers in various fields, such as experiential education (Dewey, 2009), critical pedagogy (Freire, 1974), constructionism (Papert & Harel, 1991) and communities of practice (Wenger, 1998), have contributed to the setting up of the theoretical underpinnings behind the social labs (Romero-Frías & Robinson-García, 2017).

These theoretical propositions have various features in common, such as a methodological design in setting up the lab, the involvement of various stakeholders in participatory processes, experimentation in real environments through collaborative projects, prototyping and tinkering with new solutions developed collaboratively, and the subsequent evaluation of these actions (Dekker et al., 2020). All of these elements constitute the core of the social lab approach and are also visible in different kinds of labs that have emerged during the last few decades, such as media labs, urban labs, fab labs and policy labs (Estalella et al., 2013; Niaros et al., 2017; Romero-Frías & Arroyo-Machado, 2018; Tabarés Gutiérrez & Bierwirth, 2019). In this kind of lab, it is also common to observe a plethora of stakeholders, such as artists, hackers, academics, researchers, entrepreneurs, citizens, social activists or public administrators that share concerns and interests on a particular topic or problem and their willingness to work together with others towards the development of collaborative and collective solutions.

It is, however, difficult to provide a definition of what a social lab is, as the continuous evolution of these kinds of settings and spaces across the world adds a significant fragmentation and complexity to this task. In this sense, the work initiated by Zaid Hassan at the Massachusetts Institute of Technology can help in this matter. As Zaid argues, “*Social labs are platforms for addressing complex social challenges that have three core characteristics:*

1. *They are social. Social labs start by bringing together diverse participants to work in a team that acts collectively. They are ideally drawn from different sectors of society, such as government, civil society, and the business community. The participation of diverse stakeholders beyond consultation, as opposed to teams of experts or technocrats, represents the social nature of social labs.*

2. *They are experimental. Social labs are not one-off experiences. They're ongoing and sustained efforts. The team doing the work takes an iterative approach to the challenges it wants to address, prototyping interventions and managing a portfolio of promising solutions. This reflects the experimental nature of social labs, as opposed to the project-based nature of many social interventions.*
3. *They are systemic. The ideas and initiatives developing in social labs, released as prototypes, aspire to be systemic in nature. This means trying to come up with solutions that go beyond dealing with a part of the whole or symptoms and address the root cause of why things are not working in the first place” (Hassan, 2014).*

These three elements that Zaid gathers in this definition endow social labs with a vibrant and holistic identity that can be widely recognised in several spaces and communities that have been developed during recent years. Social labs can also be framed as containers of social experiments to address complex societal challenges on a systemic level. Social labs can offer a space, a momentum and a process to deliver observation, reflection and analysis, as well as insights that can initiate or reinforce ongoing actions oriented towards a proposed solution. Another recently published article also recognises six characteristics in social labs (Timmermans et al., 2020). These are as follows:

1. *Social labs offer a space for experimentation.*
2. *Social labs are not closed off from the outside world, but intently are a part of the real world.*
3. *Social labs require active participation of a wide range of societal stakeholders that are of relevance to or have an interest in the social challenge, such as policymakers, businesses, government, and civil society.*
4. *Social labs are multi- and interdisciplinary involving a wide range of expertise and backgrounds as well as approaches.*
5. *Social labs support solutions and prototypes on a systemic level.*
6. *Social labs have an iterative, agile approach.*

These six features have profound synergies with typical features that can be found in experiential learning (Kolb, 1984). That is why we can argue that social labs offer a space for experimentation and collective learning that aims to be connected to real-world needs, requiring active participation and iteration from their members and providing adaptation to the various needs that can emerge at different stages. Learning is also conceived as a process, giving particular importance to education, building skills and the empowerment of participants during multiple iterations conducted in the lab (Freire, 1974; Hassan, 2014).

But how can social labs help facilitate collaborative policymaking and mutual understanding between distinct stakeholders affected by the economic, labour and socio-ethical implications of digital platforms across the EU? In the next section we explain the various components of the social lab approach and its features.

### 3 Methodology

As we have explained, the philosophy that lies behind a social lab relies on the ability to involve diverse actors with different types of expertise, skills, experiences, motivations and limitations and engage them in a collective and shared process that can allow multiple small-scale solutions to be tested, which can lead to potential solutions for solving complex problems. In this study, we followed the social lab methodology to establish a SOPO Lab to facilitate relations of trust, empathy and support between different participants in seven European cities (Barcelona, Bologna, Berlin, London, Lisbon, Paris and Tallinn) regarding the economic, labour and socio-ethical implications of four digital platforms (Airbnb, Deliveroo, Uber and Helpling). The lab was set up in the context of the PLUS project. It aimed to explore and delve into the societal challenges posed by platform labour whilst attracting diverse stakeholders such as policymakers, researchers, technologists, platform workers, trade unions, social cooperatives, entrepreneurs, CSOs and others, who are affected by the side-effects of digital platforms in their particular domains of action. The setting up of the SOPO Lab involved a variety of activities during its lifespan. The lab began its journey with a mapping of stakeholders in each of the seven cities, which was accomplished in collaboration with other members of the project consortium. This mapping is detailed in the next subsection. Subsequently, three workshops at the international level and two workshops at the national level (in each of the seven cities) were implemented. Due to the pandemic, the research team was forced to virtualise the international events and also some of the regional ones. In the following subsections we provide more details of the different components of the SOPO Lab.

#### 3.1 Mapping

Stakeholders that took part in the SOPO Lab were selected with the aim of establishing a network of actors affected by and interested in the emergence of digital platforms as labour intermediaries in Europe with the objective of engaging them in the outcomes of the PLUS project. To this end, a stakeholder mapping was conducted in the seven cities taking part in the project. Potential participants were contacted by PLUS project partners based in the seven cities where the PLUS project operated, building upon the previous connections these partners had. The main intention behind the mapping was to ensure the involvement in the SOPO Lab of representatives from the four categories (academia, business, public administration and CSOs) that are employed in the Quadruple helix approach (Etzkowitz & Leydesdorff, 2000; Leydesdorff, 2012).

This involved the participation of policymakers, civil servants, researchers, technologists, platform workers, trade unions, social cooperatives, entrepreneurs, CSOs and others. The participation of diverse stakeholders is considered critical for the success of a social lab, not only in terms of representativeness and heterogeneity

**Table 1** Total breakdown of stakeholders involved in the SOPO lab at the local and EU levels

	Business	Academia	Public administration	CSO	Total
EU SOPO lab	3	13	10	15	41
Local SOPO labs	24	33	38	26	121

but also for involving a wide range of different types of expertise and backgrounds (Timmermans et al., 2020). The mapping aimed to select several stakeholders from each of the seven cities to take part in the planned events at the local and/or international level. Stakeholder mapping was conducted at the beginning of the process, during the autumn of 2019 and building upon other qualitative methods (mainly interviews and focus groups) developed by the partners that were conducting fieldwork in the seven cities. This initial mapping comprised an initial list that was operationalised for the first event at the EU level, but after this, a continuous recruiting strategy based on snowball techniques was developed for the subsequent workshops. A similar strategy was followed at the regional level. A total number of 162 participants were enrolled during the lifespan of the SOPO Lab (see Table 1), although this was not on a continuous basis.

### 3.2 *Timeline and Activities*

The SOPO Lab also featured two different dimensions (local and international level). The local level aimed to enable local exchanges in the participants' mother tongues and helped in uncovering and discussing particular issues at play in each of the cities taking part in the PLUS project. The international level aimed to inform on the particularities of each of the cities, as well as any commonalities between them, to explore major issues affecting all cities. To this end, a set of events of varying durations was planned covering a variety of objectives to address these two dimensions. Three workshops were organised at the international level (during July 2021 and March 2022), and two workshops were organised at the local level (during October and November 2020 and January and February 2022) in each of the cities. The three events at the international level focused on different themes in relation to the findings of the PLUS project. These were "Local and European regulation and taxation of platforms" (Workshop 1), "Labour rights and organisation in the platform economy" (Workshop 2) and "How to innovate welfare for platform workers" (Workshop 3). The two events held at the local level focused on the latter two themes mentioned, whilst the first (local and EU regulation) was not touched upon. The workshops were designed to combine presentations from PLUS project results with participatory activities and dynamics to facilitate interactions, promoting debate and knowledge exchange. Participants were able to address questions, work together on ideas, ideate, prototype interventions, as well as reflect on the data and documents produced by the project.

### ***3.3 Gender Balance, Diversity and Inclusivity***

Specific measures were implemented to guarantee inclusivity, diversity, geographical representation and gender balance in the SOPO Lab. Special attention was paid to the gender dimension in the various events associated with the lab, along with the composition of the groups, the contents introduced by participants at the workshops and the different interactions that could be affected or shaped by the gender perspective. Assuring a gender balance in these formats is important to guarantee values like equality, diversity and social justice, which is of particular importance in this context, as digital platforms are introducing significant challenges related to labour issues and power relations in terms of the reproduction of class, gender and racial biases (Schor, 2014). In this regard, the setup of the lab aimed to include all people, regardless of race, class, ability or gender identity and embraced an inclusive approach to the organisation and facilitation of the workshop held in the lab (Chautard & Hann, 2019). During the mapping, 56 male and 31 female stakeholders were identified, but to ensure gender balance, diversity and inclusivity, the research team also tried to look for a 50% balance when inviting participants and giving priority to individuals, associations and organisations not properly represented in the initial mapping.

### ***3.4 Management and Facilitation***

The SOPO Lab management and facilitation demanded specific tasks and profiles. Three major roles were designated: a SOPO Lab manager, a facilitator and an assistant. The SOPO Lab manager took care of the coordination of the lab and several associated organisational, communication and project management tasks. The manager was also responsible for managing the contents of the lab. The facilitator was another critical role in these participatory workshops, taking lead of the dynamics developed during the events and stimulating discussions, supporting activities and actions proposed by participants. This profile required several interpersonal communication and organisational skills in dealing with the facilitation of workshops. Finally, an assistant supported the manager and facilitator in the development of the workshops and the lab, handling several tasks both during events and between the events. Although these different roles could have been exchangeable, they could not have been covered or taken on by the same person, each requiring a single person to carry out these tasks successfully. The three profiles had to deal with uncertainty and ambiguity, as these are common components that accompany social labs. Participatory experiments are very likely to create unexpected, unplanned or unconsidered situations, but these must be handled too (Bogner, 2012). Issues, either planned or unplanned, will be brought up by participants in the lab, and the SOPO Lab team dealt with them. In this sense, anticipation, flexibility and responsiveness are much needed in these settings. These profiles were also involved in the writing up phase

that followed the workshops, filling out reports based on notes, photos, videos and insights captured during the events.

### **3.5 Virtualisation and COVID-19 Mobility Restrictions**

With the COVID-19 outbreak at the beginning of 2020, significant mobility restrictions were introduced across Europe. This had serious consequences on the development of the SOPO Lab in the PLUS project, as was originally planned. The majority of international events were transformed into virtual events due to travel restrictions. The pandemic forced the virtualisation of the SOPO Lab at the international level and all three planned workshops were held online through the ZOOM digital platform. SOPO Lab sessions at local levels were also affected, and the majority of events were also virtualised. In total, 14 workshops were held at the local level and three at the EU level.

The need for virtualisation reinforced the role played by a virtual space that had already been planned to be developed as a forum and portfolio container for interactions and activities held during the lifespan of the SOPO Lab. This space was called “Virtual SOPO Lab” and was designed to share the results of PLUS project among participants of the SOPO Lab in an accessible and friendly way, as well as to facilitate interactions, including other external resources (articles, reports, policy briefs, news, blog posts, videos, etc.) and maintain discussions and debates between workshops. This Virtual SOPO Lab was directly accessible by participants through the PLUS project website. However, due to the vast number of virtual events, teleconferences and virtual interactions spurred by the rise of the pandemic across the globe, this “Virtual SOPO Lab” did not initially attract the attention that it was expected to have. Following an early positive reaction to virtual events at the outset pandemic, a significant backlash followed due to cognitive overload and screen fatigue caused by the extensive use of these services, and this tool was no exception.<sup>3</sup> In the following section, we explain the main findings gathered during the development of the SOPO Lab.

## **4 The Economic, Labour and Socio-Ethical Implications of Platform Labour**

As we have explained previously, two local sessions of the SOPO Lab were held in each of the seven cities, focusing on labour rights in the platform economy and innovative welfare. At the EU level, both topics were addressed in dedicated events; however, there was also an additional workshop focused on “innovative welfare”. Below, we present the findings from these events in various subsections that attempt

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<sup>3</sup> See <https://news.stanford.edu/press-releases/2021/02/23/four-causes-zoom-fatigue-solutions/>.

to gather the variety of topics observed in the debates and activities enabled by the SOPO Lab.

#### ***4.1 Regulatory Challenges at the Local and European Levels***

Tensions between cities and national legal frameworks were continuous during the various SOPO Lab sessions. Participants commonly argued that local administrations, municipal and metropolitan governments find themselves lacking the formal responsibilities, the means, budget and legal instruments to intervene and regulate issues such as welfare and social protection. In addition, stakeholders such as trade unions or trade associations frequently tend to identify national governments as the principal interlocutor to whom they can address their demands for the expansion of welfare and social protection measures. SOPO Lab participants also discussed innovative initiatives implemented by some cities, such as Barcelona or Bologna, that actively support digital cooperatives and universal basic income schemes or promote a set of digital rights for platform workers. Others also pointed out how cities can shape platform working conditions, giving examples from other cities, such as London, that addressed new realities through local laws (i.e., each new restaurant that opens has to provide facilities for riders, such as toilets) and the power of its mayor to issue licences to platforms to be accountable (i.e., London withdrew Uber's licence when issues with sexual violence by drivers were reported, pushing the platform to take measures to protect vulnerable customers). The lab spurred the interest of other city representatives in these initiatives (Berlin, Tallinn), but also stressed that cities should have new legal instruments to support platform workers and contest technical externalities created by digital platforms in urban areas. Their impacts and negative externalities go well beyond labour issues, such as their effects on aspects such as mobility, environmental sustainability and/or housing, to cite a few.

#### ***4.2 Platform Intermediation***

An interesting issue that emerged in the lab was the differences perceived by participants in their relationship with platform intermediation features. For instance, several participants working with Uber stressed that they do not consider themselves to be platform workers, and that they were mainly interested in being freelancers. Conversely, some platform workers for Deliveroo stated their interest in being acknowledged as employees. In contrast, other participants working with Airbnb considered themselves as entrepreneurs enabled by digital platforms whilst downplaying the hosting labour associated with their duties. Beyond the employed/independent/self-employed dilemma, we noted several contradictions experienced around supposed platform conditions such as flexibility, autonomy and entrepreneurship with a clear power asymmetry between digital platforms and platform workers.

This situation is much more complicated when outsourcing is introduced (one account used as a micro-SME) and third parties are engaged by platforms in the labour process. In general, there was a heterogeneity of perceptions and experiences regarding digital platforms that differed significantly not only between platforms but also regarding the same platforms in each city.

### **4.3 *Rights and Protections***

Increasing the access and level of social security of platform workers by including unemployment protection and occupational safety and health was another common topic of interest in the SOPO Lab. Participants also debated alternative local welfare measures, framing them as experiments, and pilot proposals such as local universal basic income experiences promoted in cities like Barcelona. The need to guarantee a minimum wage and minimum fees was also a common topic of debate in the lab. Most platforms calculate workers' earnings on the basis of fees, so it is important to ensure that a minimum fee for workers is established. Platforms tend to "play" with fees to attract workers but also to increase their profit.<sup>4</sup> This should be controlled through collective agreements in order to ensure that platform workers get a fair deal, not only when they join platforms but also in the long run. Rights and digital rights were also a common concern of participants in the lab. The latter are also entangled with other legal labour rights that do not appear to be enabled by digital platforms, due to the new meanings and socio-technical configurations that digital platforms confer on platform workers. The discussion was highly influenced by the employed/independent/self-employed dilemma, but the majority of the participants stated the need to improve social protection and labour rights for all types of platform workers, independent of their employment status.

### **4.4 *Skills***

Challenges related with the skills needed to incorporate citizens with a low level of education (as these are the most common ones in digital platforms) to the new employment opportunities facilitated by digitalisation and the digital economy were also an issue present in the SOPO Lab. In this sense, many of the participants in the lab mentioned terms such as digital skills, digital literacy or soft skills to refer to the kinds of abilities and capabilities needed to work with digital platforms. Other soft skills, such as resilience and self-confidence, were reported by participants as also important in the mastery of digital tools and competences to be acquired for platform labour.

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<sup>4</sup> Whilst fees are relatively high when platforms try to establish themselves in cities, when the number of registered workers increases, they tend to lower them.



#### ***4.5 European Public Values at Stake***

Values such as transparency, accountability, responsibility, sustainability or privacy that are commonly represented in European societies and institutions seemed to be challenged by digital platforms. Participants in the SOPO Lab mentioned how algorithmic transparency, automated decision-making, and perceived and promoted inequality are associated with digital platforms. In particular, most participants stressed that specific policies should address cyber-surveillance and indicated that appropriate measures should be deployed to safeguard human dignity, legitimate interests and the fundamental rights of platform workers. Data transparency was also revealed as particularly important for platform workers and municipalities. Many participants highlighted the uncertainty around fares, shifts and preferences that are behind the algorithmic organisation of labour, provoking a lack of clear knowledge about “what is going on”. Other participants contended that this lack of data transparency poses significant difficulties when it comes to understanding the expansion of platforms in cities and deploying specific related policies. Participants from Barcelona, Berlin and Lisbon also alluded to precarity, temporality and vulnerability in the working conditions enabled by digital platforms, which challenge public values promoted by the EU. Lastly, some participants also argued that during the pandemic, digital platforms seemed to be more interested in supporting their public image through campaigns of social responsibility (free rides for medical assistance, free hosting for doctors), but much less engaged with improving safe working conditions.

#### ***4.6 Gender, Migrant and Diversity Issues***

Several participants in the SOPO Lab claimed that there is a significant diversity in the composition of platform labour which is not properly considered when undertaking relevant policymaking. Economic sectors that have high percentages of female workers demand specific welfare needs that are not adequately addressed by policy-makers. Highly feminised sectors, such as cleaning, were already precarious before digital platforms arrived. Other participants raised several issues related with migrant platform workers, who very often rent the accounts of established users because they do not have the necessary documents to participate in formal labour markets. In addition, it is extremely difficult to obtain “papers” through platform work, which creates vicious circles of precarious conditions and exploitation. It was agreed by participants that migration and informal work should be taken into consideration when specific policies are deployed because migrants may be left out and excluded from platforms, or even lose their jobs completely, when new policies against bogus self-employment are implemented.

## 4.7 COVID-19 as a Tipping Point

The coronavirus outbreak has been a tipping point in the ongoing processes of digitalisation throughout European societies, but it has also been a period of inflexion for business models promoted by digital platforms. The tourism and mobility sectors were among the main economic sectors affected by lockdowns and travel restrictions imposed across the EU. Participants from Lisbon and Paris reported that platforms like Airbnb were forced to adapt to new conditions, encouraging mid-term rentals. In contrast, other participants stressed that food delivery services such as Deliveroo or e-tailers such as Amazon have benefited greatly from the “new normality”, in which the last mile has arisen as a space of critical importance for digital businesses during the pandemic. Due to this, many participants argued that whilst digital platforms have largely benefited from this situation, their workers have not. The majority of digital platforms did not enable dedicated measures for their users such as Personal Protective Equipment (PPE), nor did they include social benefits. For instance, some participants argued that Deliveroo in London expressed more concern for its customers than for its workers, initially limiting its support merely to contactless delivery. Additionally, the formal working status of being self-employed or independent workers did not allow riders, hosts, drivers and cleaners working through digital platforms to access government allowances (e.g., in London and Tallinn). This combination of limited support measures both from digital platforms and state welfare contributed towards generating a high turnover rate in many platforms as well as a migration of workers between platforms in the search for better opportunities (e.g., in Paris).

## 5 Discussion

As we have stated throughout the text, the setting up of the SOPO Lab allowed a space to be established that gathered a diversity of stakeholders from seven cities affected by the economic, labour and socio-ethical implications of four digital platforms at the local and European levels. The participants reported a number of issues that the influx of these platforms has provoked in the seven cities that took part in the PLUS project. Issues such as developing new and dedicated regulations at the local and EU levels, the need to broaden welfare instruments, rights and social protections for platform workers, paying attention to particularities in social policies related to gender and migrant aspects or defending public values promoted by the EU that are at stake by the rise of digital platforms were raised. These issues are in line with those that other authors have indicated regarding the economic, labour and socio-ethical implications of digital platforms in different cities and territories across the world (Kenney & Zysman, 2016; Srnicek, 2017; Woodcock & Graham, 2020).

The platform intermediation of labour brought about by these brand-new companies has introduced many challenges in European societies, necessitating new approaches to social and labour policies regarding regulatory regimes, rights, welfare

instruments and the social protection of platform workers. These challenges demand new instruments across the EU, but also at the local level, as cities try to manage and govern the impacts of digital platforms that go beyond labour itself. Gentrification or touristification effects in particular urban areas and traffic congestion and pollution are some of these problems, but they cannot be solved with a restricted regulatory approach to labour policies. The many different implications caused by the upsurge of digital platforms in the European landscape require a combination of regulatory instruments and innovative social policies that will go beyond classical instruments.

In this regard, the potentialities of the social labs offer a window to develop new forms of participatory policymaking that can help navigate the complexity of the situation, as well as involve different stakeholders in processes of co-creation and participatory approaches (Dekker et al., 2020). Despite the limited interaction that virtualisation imposed on the development of the SOPO Lab, this virtual space contributed towards favouring mutual understanding between different stakeholders across the EU and setting up a common ground for stakeholders affected by the implications of digital platforms. We can argue that the development of these spaces can provide room to facilitate close collaboration between policymakers and diverse stakeholders that are not currently considered in policymaking. These spaces can also help to establish synergies between different stakeholders that are affected by similar problems, but have different legal and socio-economic contexts.

At the same time, it should be stressed that the SOPO Lab has also presented several limitations. Most of the local labs deal with problems related with their local dimensions and the goal of meeting the broader framework of the debate on the regulation of digital platforms at the EU level. Particular issues that were at play at the local level deterred these debates and engagements from being scaled up to the EU level. At the same time, the EU level was restricted to a set of participants that minimised the rich complexity that each of the labs had at the local level. These tensions between the international and local levels also reflected the particularities of the platform economy in each of the cities that took part in the lab. This is why EU regulations and directives are needed, but we should warn that “one-size-fits-all solutions” should be complemented by specific and local instruments that can address local particularities.

Lastly, it is also important to stress how platforms confront not only current regulations but also public values that are promoted by European institutions and societies (van Dijck et al., 2018). Digital platforms are not only a threat to tackling the current socio-economic problems faced by the Union but also to the political project that lies behind it. As the platform economy continues to grow, its ethical implications demand specific attention and dedicated instruments, as the technologies, practices and business models associated with its development can exacerbate precarity and unfair conditions for platform workers (Tan et al., 2021).

In this regard, new approaches to welfare that can take into consideration new realities of labour that involves racial, gender and discriminatory practices fuelled by technological innovations are needed. This will be one of the main battlefields in the coming years as the platform economy regime is expected to continue growing despite new regulations, and algorithmic governance mechanisms and practices may not only

be implemented on digital platforms but also in other labour contexts where digitalisation practices are growing (Rosenblat, 2018). Industrial automation favoured by Industry 4.0 technologies or the digitalisation of health monitoring systems by eHealth technologies could be two examples of the expansion of these automation technologies and management practices.

## 6 Conclusion

The future of work is intimately associated with digitalisation and its associated practices. In this regard, digital platforms that are promoting the platform economy as a new paradigm for the future of work pose significant challenges to the ideals of labour, welfare and social policies that are promoted by the Union and its associated member states. The next decade will be a crucial one for the future of work in this part of the world as the further development of technologies associated with digital platforms, such as Artificial intelligence or the Internet of Things, will create new possibilities for platform intermediation of labour. In addition, societal challenges such as climate change or conflicts for land and resources (and their associated migrations) will also create new endeavours for the political project behind the Union. In this regard, the capacity to create innovative regulations, instruments and policies will define the future of work within the EU and probably also outside of it. Despite the long crisis due to austerity in which the Union appears to continue to be embroiled, it is still a very influential superpower that shapes significant value chains and regulations across the world (Bradford, 2020). The future of work should also form part of this agenda of global influence.

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# Local Best Practices: Urban Governance and the Ongoing Platformization Process



Michelangelo Secchi, Franco Tomassoni, and Giovanni Allegretti

## 1 Introduction

Numerous scholars concur that cities serve as the primary venues for the development of the platform economy, where novel labor relationships and processes of accumulation and disintermediation in production relations rapidly emerge and stabilize. However, while cities are acknowledged as the geographical spaces where the social and economic impacts of platforms can be directly observed, the nature and potential of the relationship between urban politics and the governance of changes instigated by these platforms remain less defined.

Several challenges arise when attempting to outline and identify the characteristics of local governance concerning platforms and their effects. The first level of ambiguity originates from the difficulty in unequivocally defining the topic from a thematic perspective. The platform phenomenon is multifaceted and tends to relate to a variety of policy domains, including but not limited to labor, welfare, economic development, urban planning, tourism, data management, and digital transformation. Simultaneously, the task of demarcating the scope of local platform governance is complicated by the wide-ranging diversity of entities involved in urban governance. These entities, starting with local governments, differ significantly in scale, power, competencies, and more. This diversity adds layers of complexity to the issue, requiring nuanced understanding and careful analysis

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The goal of this chapter is to delineate the constraints, opportunities, and potential for local authorities to govern the urban implications of the platform economy. Where feasible, we aim to provide a comprehensive overview of the most innovative strategies, methods, and practices trialed in European cities. Drawing on field research conducted as part of the PLUS Project in Bologna, Barcelona, and Lisbon, this chapter aims to encapsulate the key insights garnered and contemplate potential models for urban governance of platforms.

This chapter is structured into three parts. In the first section, we construct the fundamental framework of our theoretical approach to the issue of urban governance within the digital ecosystem. We start by examining the notion of governance through its urban lens, focusing on three main processes: the decentralization of functions and competencies previously handled by the central state, the restructuring of the urban political sphere, and the expansion of the urban policy agenda. Further in this section, we define the ongoing platformization process and address its implications on the urban digital ecosystem. We then integrate these concepts to create a comprehensive theoretical framework for studying and analyzing specific cases of urban digital ecosystem governance. This framework revolves around three primary dimensions: the regulatory framework, the urban public sphere, and the urban digital agency. This theoretical model serves as a common interpretative lens for examining different case studies, capturing the various aspects of the relationship between platforms and local governance across three complementary dimensions.

In the subsequent section, we apply the theoretical framework developed in the first part to describe, analyze, and interpret three specific cases. These illustrate different modes of urban governance addressing the impacts of platformization at territorial and local scales.

The final section will offer concluding remarks, drawing from insights discussed in the previous sections, and provide general recommendations for policy makers.

## **2 Part I—A Theoretical Framework for the Urban Governance of the Digital Ecosystems and of the Ongoing Platformization Process**

This section proposes a conceptual framework to deal with the relationship between the urban governance, the digital transformation of urban societies, and the challenges posed by the rapid spread of platform economy and its impact on the production and use of urban spaces.

The core assumption of this chapter is that the study of possible examples of urban governance of the platforms' activity requires to observe their interplay with the broader urban digital ecosystem where these take place. Only in this manner, it would be possible to identify context-related dependencies and enablers of democratic and innovative policies and practices and technological agency, and eventually generalize



findings and practices and recommend their dissemination and replication in new contexts.

In this introductory paragraph we start to debate the notions of Urban Governance and of Digital Ecosystem within the ongoing platformization process. We also provide an operational definition of lean and sectorial platforms. Finally, we identify three main variables to assess the local authorities' actions in the governance of the urban impacts of the platform economy.

### *The Ambiguous Notion of Urban Governance*

The use of the notion of “urban governance of the digital ecosystem” requires a set of preliminary clarifications and reflections that will help to define exactly the focus of this chapter.

The understanding of “urban governance” entails—per se—several ambiguities and can be interpreted differently in different scientific domains. The idea of governance entails a vision regarding how politics should be organized and managed, while outline a shift toward a more flexible, innovative, and adaptive manner to make and implement decisions and public policies. From this perspective it is opposed to the “old fashioned” government methods and techniques that characterized the Keynesian state. In this sense, the same notion of governance is not neutral, and has been widely used as an umbrella concept for a variety of public sector reforms that have been promoted starting from the nineties. Namely, several scholars emphasized the neoliberal genealogy of this term and the fact that his popularity arose along with the diffusion of the new public management agenda that adapted and translated to the public sector several concepts coming from the private sector.

In this perspective, the focus on the “urban” dimension of governance relates to the new role(s) assigned to cities in re-designing the public sector after the ongoing process of reshaping the prerogatives and role of the nation-state (Raco, 2009). The malleability of this notion underpinned, over the last decades, different reconceptualization. This is the case, for example, of the use of the “Good governance” notion used by UNDP, OECD, and other international organizations (Elahi, 2009), centered on the inclusive dimension in policy making. But it is also possible to find even an anti-hegemonic understanding of urban governance as the one proposed by neo-municipalism, where it could be intended as “the strategic transformation of municipal governance by citizen-led movements and the radical democratization of urban political economies” (Thompson, 2020, 5).

Although, what concerns our analysis are three key issues underlining the notion of urban governance:

**First**, the notion has to do with the **urban rescaling of the functions and competencies** formerly carried out by the nation-state or other institutional governments, in a process that directly involved several international organizations as promoters of institutional decentralization. The same EU, while planning and implementing a supranational State restructuring process, has been in parallel promoting reforms to restructure national institutions inspired to the subsidiarity principle and assigned to subnational tiers of government a pivotal role in the distribution and use of resources coming from structural funds. This double movement tended to downscale welfare

state competences (education and healthcare *in primis*) toward urban authorities, thus reflecting an attempt to deconstruct the rights to welfare associated to the Keynesian nation-state (Brenner, 2004).

**Second**, the notion of urban governance has to do with **the restructuring of the urban political sphere**, and the assumption that urban politics are not limited to public institutions, but also involve a broad variety of individual and collective actors (UN-HABITAT, 2002). As it is easily inferable, there are different understandings of **who** are the non-official urban actors and stakeholders that shall be considered as part of the renewed urban sphere. On one hand such “extension” can be intended normatively in an **inclusive perspective**, as an exhortation to involve all city inhabitants and producers of urban space in urban politics, as for example in the case of the democratic innovation experiments deployed in many European cities along the last decades (e.g. participatory budgeting, public consultations, citizens assemblies, and juries, participatory urban planning, living labs, etc.) (Allegretti, 2010; Saward, 2003). On the other hand, it can be intended—in a less innovative manner—as a merely descriptive perspective of the **reconfiguration of urban political power** under neoliberalism: i.e. as a portrait of the shift of political power from public institutions toward mixed urban regimes, including transnational powers, international networks of interests and capitals, as well as those infrastructural actors that are capable to condition the technological choices in the urban political sphere (Blanco, 2013; Mossberger & Stoker, 2001).

**Third**, the notion of urban governance implies **the extension of the urban politics agendas**, broadening the scope of intervention of urban politics to a wide range of policy areas, often larger than those formally attributed to urban authorities. The historical rolling-out of the urban governance notion generally relates it to topics and sectors typical of the **neoliberal agenda** and orients urban governance to several policy areas aimed at creating entrepreneurial and attractive environments for competitive businesses and international capitals. In this perspective a pivotal role is played by the shaping of **networks and infrastructures necessary to make the urban environment attractive** toward international capitals and for entrepreneurs, including in particular those digital infrastructure (both soft and hard) that compose the **urban digital ecosystem** (Gauk et al., 2019): i.e. key enablers of innovative businesses development.

### *Lean and Sectorial Platforms: The Ongoing Platformization Process and the Urban Digital Ecosystem*

The underlying assumption of this chapter is that **the urban digital ecosystems of European cities are undergoing a process of platformization**, meaning that the platforms and their organizational models are reshaping the social and technical boundaries of urban societies. This process is pervasive and not limited to the industrial sectors where certain digital platforms already dominate, but also affects the same **complex sociotechnical infrastructures that enable and define the conditions through which the four platforms work**.

Recently, van Dijk et al. (2018) suggested an analytical tripartite division to address the layered structure of the ongoing planarization process: (i) the micro-level of the single platforms, (ii) the meso-level of an ecosystem of platforms, and (iii) the macro-level of the platform societies. This analysis also provided a taxonomy to distinguish platforms typologies and their role within the **digital ecosystem architecture: Infrastructural platforms** (Big five, GAFAM—Google, Amazon, Microsoft Facebook, Apple), **Sectoral platforms** (Uber, Airbnb, Deliveroo, etc), **Complementors**.

While **infrastructural platforms** provide the whole digital ecosystem on which sectoral platforms are based upon, **sectoral platforms** act as connective platforms between users for the provision of specific service lines (multisided markets). Finally, **complementors** are organizations or individuals that offer goods or services to end users via platforms. Complementors can be public authorities and governments, private actors such as businesses, micro-entrepreneurs or individuals offering their tangible (such as cars, apartment, etc.) and intangible “assets” (such as expertise and professional skills).

This digital ecosystem is encompassing a set of processes such as **datafication**, **commodification**, and **selection**. **Datafication** designates the growing capacity of platforms to translate into quantitative measures several spheres of sociality and aspects of reality formerly hardly to quantify (Mayer-Schönberger & Cukier, 2013), **commodification**, describes the way in which the sociality relationship become to be exchanged in the market as a commodities thanks to the direct intermediation by platforms, finally, **selection**, entails the curation mechanism by which the platforms shape their offer for the users, based on data and information on the most relevant topic and research terms.

In urban digital ecosystems, digital platforms are integrated and cross-fertilize with the pre-existing social and juridical structures, adapting to the contextual configuration of power relations. So, there is not a radical rupture, but platforms are infiltrating pre-existing institutions and the practices that structure societal organization, while—at the same time—changing the latter.

Yet, combining these definitions with the conceptual framework proposed by van Dijk et al. we can operate a functional taxonomy, based on the extent of the firms’ infrastructural systems and the capability to create a whole digital ecosystem to which other economic, institutional, social, and individual actors are based upon **infrastructural platforms** and **sectoral platforms**. The formers provide a wide range of enabling services (such as search engine, cloud computing, data storing, managing and analytics, messaging, e-mail, geolocation etc.), that are necessary to make the latter works. As revealed by the name, **sectoral platforms** operate in specific industries and sectors, such as transportation, hosting, food-delivery, information, etc., and act as “connector” between users (sellers and consumers).

Although this does not apply to all cases, many sectoral platforms offering services like delivery, passenger transports, or housing services, are also defined as **lean platforms**. What distinguishes the lean platforms from other models is the very low dimensions of the proprietary assets. These platforms own the intermediation

software which mediates between users and the software of data- management. Any other kind of assets, such as houses, workforce, and cars, are supposed to be external.

### *Investigating the Data-Territorial Nexus*

If **sectorial** and **lean** platforms constitute the main characteristics of the case studies analyzed in this chapter, a greater understanding of the ongoing platformization process requires to further clarify the nexus between their territorial dimension (urban) and the role played by data.

Using the conceptualization proposed by Woodcock and Graham (2020), platforms acting are geographically tethered. This means that they are marked by the materiality and visibility of the work performed locally (in the urban contexts) and, thus, eventually with the possibility for policy actors, union representatives, etc. to intervene to regulate platforms' activities. In fact, the data collected by these platforms, which then give rise to the **datafication**, **commodification**, and **selection** processes, are related to specific territories, and therefore subject to a strict relationship between different administrative and institutional levels

The relevance of data in contemporary organizations and industries is such that they are treated as a form of capital (Sadowski, 2019). In fact, as we argued in the previous paragraph, datafication is at the core of the platform society and the selection processes are gradually being set up on the basis of a data-driven selection. The huge amount of data is produced by the constant activity of platforms users (both workers and customers) and this data collection could be based on informed consent or not: indeed, despite the existence of a formal procedure to ensure informed consent of users, the same platforms users could be aware or not of the fact that their online activities are constantly measured and transformed in data to be valued by Hi-tech companies (Ippolita, 2016). It is also part of the commodification process of ever more social spheres, by which platforms accrue the value extraction from everyday life activities. For example, to describe these dynamics, Christian Fuchs uses the expression informational capitalism: "In informational capitalism, knowledge has become a productive force, but knowledge is produced not only in corporations, in the form of knowledge goods, but also in everyday life, for example, by (...) consumers of media who produce social meaning and hence are prosumers; users of MySpace, YouTube, Facebook, and similar sites, who produce informational content that is appropriated by capital (...)" (Fuchs, 2010, 186–87). Instead, Antonio Casilli (2019) defines these kinds of activities as online social work (*travail social en réseau*). So, the globally distributed digital ecosystem enabled an unprecedented data collection, with relevant effects on multiple social spheres, such as urban and political governance, urban planning (for example, smart cities), technological and infrastructural development, business, and industrial models (for example, the Internet of Things and the 4.0 Industry). Furthermore, this data collection enabled an unprecedented society-wide surveillance system (Zuboff, 2019).

### 3 How to Study the Governance of the Urban Digital Ecosystem?

As one of the purposes of this chapter is to clarify the boundaries, limits, and potentialities of the action of local authorities in the governance of the urban impacts of the platform economy, we **identified three main lenses to study and observe how cities are dealing with the governance of their digital ecosystem** and what is their actual possibility to influence and steer the way in which sectoral service platforms are affecting urban life. These three variables have been described through **three main research questions**:

**Regulatory Frameworks:** to what extent the urban authorities have the formal power to regulate and enforce regulations related to the lean platforms' activity, either through direct regulation or indirectly, by influencing industry policies or governing key infrastructural choices?

**Urban public sphere:** in what manner the urban public sphere has been extended to include non-institutional actors in public policy making, and who/what are the social and political actors that gained voice in the process of digitization and platformization of the urban society (with a specific focus on the voice of the weak actors of the platform society)?

**Urban Technological Agency:** to what extent urban authorities and urban stakeholders are capable to lead and steer autonomously the digital transformation in the city and in particular what is the approach toward data management, considered as a key variable for the contextual configuration of power relations in the platform society?

#### 3.1 *Regulatory Frameworks*

The first dimension that conditions the approach to the urban governance of the platform society regards the regulatory powers and the level of autonomy of the urban authority in establishing and enforcing regulations on those policy domains that affect, directly or indirectly, the configuration of the platform economy in their urban space. Not only it is a matter of formal power attributed constitutionally to cities in each country, but it is also a spatial matter. Indeed, while the scope of cities power is limited by established geographical boundaries, platforms' geography can be defined as a "conjunctural geography" (Graham, 2020), since the place where a platform operates is not the same where it is established for fiscal purposes, nor the one where data are stored, and eventually not even the same where a legal responsibility is held by the platform's owners.

Scientific and grey literature proved that the extreme variety of competences and powers attributed to urban authorities has been representing a major struggle for several research projects aimed at comparing urban policies and governance models

between different European countries (Committee of the Regions, European Institute of Public Administration (European Institute of Public Administration (Maastricht, The Netherlands)), and European Center for the Regions (ECR), 2012; Committee of the Regions & European University Institute, 2008). Indeed, the extreme variety of institutional settings at the local level is entrenched in the variety of administrative traditions and political cultures of Europe, that underlies in each context a peculiar different distribution of powers and responsibilities between different governmental scales, and one in general defines the boundaries of the scope of public sector responsibilities. Nonetheless, many European countries starting from late 80s underwent relevant reforms of the local public sector inspired by common principles derived by the New Public Management culture, and then a new wave of reforms has been receiving further impulse by the financial crisis started in late '00s (Schwab et al., 2021). Even though the actual deployment of these local sector administrative reforms generated different results through the reaction with the pre-existing administrative context, some common pattern of transformations could be identified.

First, the reforms of the local public sector require to be interpreted in a **trans-scalar perspective**, considering the interplay between the redefinition of powers and scope of local governments and the related changes occurring in the relation with regional, national, and European governmental levels. Indeed the expansion of the prerogatives of urban authorities can be inscribed in a broader picture of reorganization of the public sector in Europe, where some powers have been transferred toward the supranational institutions, while subnational governmental tiers have been experiencing a parallel process of decentralization and devolution of governmental competencies. This is for example the case of the Italian reform of 2014 that activated the “metropolitan cities” (Tortorella & Allulli, 2014) or the example of the Portuguese reform of parishes (a sub-municipal institution corresponding to a district) that led to a cut of almost 1/3 in 2011, but in general it could be referred to the role of regional authorities in the organization of funding schemes of the ERDF and ESF. From an administrative perspective, the principle of subsidiarity has been the driver of the reconfiguration of intergovernmental relations and related functions attributed at each institutional level (Article 5 of TEU 1992). It is difficult to describe at a glance what kind of policy areas have been progressively decentralized toward local governments, even if it is possible to observe that the domains more commonly interested by the rescaling have been economic regulations and welfare policies previously held by the nation-state (UCLG, 2011)

Another common feature of most of recent EU local public sector reforms has been the tendency toward **downsizing the local public sector and reorganizing public service delivery at the local level**. Key to the reforms inspired by NPM has therefore been the assumption that bureaucracy is wasteful and inefficient and the counterargument that a leaner government can be incentivized to seek out efficiency saving and quality-enhancing innovations (Osborne & Gaebler, 1992). The driver of efficiency has been commonly considered as a pillar of PS reforms, resulting in cuts to expenditures and overall reduction of the transfer of resources, as well as loss of institutional capacity, personnel, and expertise (Hammerschmid et al., 2019, 5). The loss of resources and the limitation to issue local taxes put local public budgets under

pressure and pushed local governments to seek new sources of income primarily by creating attractive conditions and investment opportunities for global capitals in the production of space (Harvey, 2001). First of all in the real estate sector that has been undergoing an internationalization and concentration process in most of the cities studied in this chapter.

The **combination of decentralization of regulatory powers and downsizing of the local public sector** resources and capacity resulted in a kind of **asymmetric subsidiarity** (Allegretti, 2012) that paved the way for outsourcing services previously implemented in-house, as well as for agencification mechanisms, and for the launch of PPPs and other kind of hybrid devices that involve non-public actors in service delivery. In this manner the downscaling of competences toward subnational authorities has been interpreted by scholars of the Critical Urban Theory as “in contrast to the project of national territorial equalization associated with Keynesian welfare national states” (Brenner, 2004) and worked as a component of a neoliberal strategy aimed at discussing the universality principles that characterized the public welfare systems consolidated till the 70s in many European states.

### ***3.2 Urban Public and Participatory Sphere***

This second dimension focuses on the actors and stakeholders of urban governance of the digital ecosystem, considering the existence of formal arrangements and institutional spaces and channels for the active engagement of societal actors in public policy making.

The shift from government toward governance is commonly associated to the inclusion in decision-making processes of non-elected and non-institutional actors. Different streams of research converged in this direction even if starting from different questions and approaching it from different perspective.

For example, **urban studies** have been developing (and adapting over time) the notion of urban regime to describe “the informal arrangements by which public bodies and private interests function together in order to be able to make and carry out governing decisions Urban Regime theories tries to describe the way powerful actors can influence public decision making, focusing on the interaction between actual power relations and formal regulatory settings. In this manner they tend to focus on the role played in urban politics by political and economic interests either locally based or originated by global flow of capitals” (Stone, 1989).

**According to NPM theories** the better efficiency of the private management of public services and the higher capability to generate value from the private transformation and production of urban space led to the legitimation of a growing role for powerful political and economic forces, for which specific formal settings have been also experimented. This is the case not only of the outsourcing of service provision (under the regulatory control of the public authority) but also of more innovative devices as the so-called public-private-partnerships that in some cases have been also covering the management of relevant digital transformation processes.

Finally, the extension of the public sphere has been also advocated by the stream of Democratic Studies, even though with a variety of coexisting understandings. Indeed, in the last 20 years, cities have been the principal stage for a huge number of experiments of democratic innovation: the attempt to create institutions appositely designed to involve inhabitants in public policy making (Smith, 2009). Several scholars analyzed the variables that shape the participatory methods and spaces (Fung, 2006). In this research we focus on the involvement of non-institutional actors in the governance of the digital ecosystem of the city, which is a sub-category that entails additional challenges, related both to the subjects and to the objects of participation (Secchi & Spada, 2019).

### ***3.3 Urban Technological Agency***

This third dimension explores to what extent the city's authorities and stakeholders can be considered as agent of technological choices, capable to lead and steer autonomously the digital transformation in the city or whether if they are just dependent by the choices made at another scale and entrenched into their digital infrastructures. In this perspective, **urban technological agency** is here intended as the capacity of cities' authorities to manage technological change and in particular the digital transformation of their organization as well as of the urban society. More specifically, we will frame this agency in the context of platform society and the increasing dominant position in the digital ecosystem of infrastructural platforms and sectoral platforms.

This dimension it is particularly relevant since, in the contemporary stage of capitalism, cities have become central nodes in the data value chains, in the context of what may be defined as **data urban market**. This raises important questions about the **governance of data management as a pivotal process to steer digital transformation** and the role local authority and urban stakeholders should play. We know that work, data, and digital ecosystem dimensions have to be considered in an intertwined perspective in order to grasp the urban governance dynamics of the platform societies. Nevertheless, this dimension considers data management strategies as key lenses to investigate the urban authority's capabilities to interface with a platform-driven organization of urban spaces.



## 4 Part II—Governance of the Urban Digital Ecosystem: Mini Cases Analysis

In this session, the theoretical framework presented above and its focus on focuses respectively on the **Regulatory, Participatory, and Technological Dimensions** are mobilized to describe and analyze three case studies that can be described as experiments of governance and regulation of platforms at urban scale.

Selected between the cases studied in PLUS, these experiments focus either on the direct regulation and management of sectoral platforms at urban scale, or in the promotion and experimentation of innovative platform services, models, and practices, alternative to those carried out by platform unicorns. The three selected cases, **Bologna, Barcelona and Lisbon**, show three different regulatory modalities:

- Sectoral/regulatory in Lisbon
- Sectoral/incentive in Bologna
- Cross-cutting in Barcelona.

The following table illustrates and systematizes the selected cases, the public policies adopted in the each urban context, and the main characteristic of the corresponding profile of each city, relative to Regulatory, Participatory, and Technological Dimension. Furthermore, the table shows the specific economic field of intervention of the urban governance strategy adopted by the three municipal authorities. As is evident, while Lisbon and Bologna represent a case of specific sectoral intervention, the case of Barcelona shows how the action of local institutions has been directed toward a broader theme, that of digital sovereignty. As will become evident during this session, the choice of these measures of Urban Governance depends on the political orientations of the institutions, but the room for opportunity and development of these policies is likewise dependent on the combination of the Regulatory Framework, the Urban Public Sphere and the Urban Technology Agency.

City	Case	Sector	Regulatory space	Participants	Technology	Outline
Bologna	Consegne Etiche <a href="https://consegnetiche.it/">https://consegnetiche.it/</a>	Delivery	Agreement between private parties promoted by the municipality	Urban Authority, Innovation agency (FIU),—FIU, negozianti, università, movimenti riders	Limited technological dimension	Case draws upon a city-driven experiments (with the engagement of several urban actors) to provide an ethical delivery service alternative to unicorn platform
Lisbon	Renda Segura <a href="https://www.bloomberg.com/graphics/2020-airbnb-short-let-reforms-lisbon/">https://www.bloomberg.com/graphics/2020-airbnb-short-let-reforms-lisbon/</a>	Short-term rental	Containment zoning plan (Planos de contencao) + Covid initiative (Renda Segura)	Urban authority, SUBmunicipal authorities, renters, housing movements	Digital services to manage licensing process	Case that focuses on the mitigation policies for short-term rental and explores the dynamics of the tension between the city and Airbnb in the context of the Covid 19 emergency
Barcelona	Decode DDDC <a href="https://www.decodeproject.eu/">https://www.decodeproject.eu/</a>	Cross-cutting: pilot on data sovereignty	Experimentation in EU project + structured spaces of digital participatory democracy	Consortium Partners and inhabitants	Blockchain and integration with urban digital ecosystem	Case that emphasizes the high technological experimentality and the active role of the urban authority in promoting a open and sovereign digital ecosystem paradigm (and its fragile sustainability)

## **Bologna: Consegne Etiche**

“Consegne Etiche” is a platform co-op initiative launched in Bologna, which involved a variety of urban platform economy’s stakeholders, such as riders, municipality, institutional, and no institutional organizations. This case is an interesting lens through which read the intersection of the three variables we identified concerning the local authority commitment/capacity to interact with the platform economy in the urban context: regulatory framework, urban public sphere, and urban technological agency.

As for the other alternative ride-hailing and delivery platforms identified, the emphasis on “**fair**” and “**ethical**” dimensions is apparent from the courier’s fair compensation (9 euro per hour) and the more stable working contract. On the public operators’ side, differently from the Unicorn/traditional model “Consegne Etiche” platform does not retain the high and fix amount of fee (more or less 30%) per each order, but, as reported in the official website, it guarantees equity and transparency let managing the transaction directly to the restaurants and public operators. A further element that marks this alternative platform is the commitment to reduce the environmental impact by using only bicycle.<sup>1</sup> Finally, it is important to evidence that Consegne Etiche is trying to position itself in a specific niche of urban delivery market that is the delivery of groceries and books, thus is not in a direct competition with the big players of the sector.

### ***Regulatory Dimension***

To grasp the Consegne etiche’s regulatory dimension it is worth to consider the plurality of civil society and institutional actors which created or supported it, that is: two social cooperatives (“Dynamo” and “Idee in movimento”) and the “Almavicoo - Centro Universitario per la formazione e la promozione dell’impresa cooperativa” (University Centre for the promotion of the cooperative enterprise). Besides these actors, there are the Bologna City Hall and the Hub “Fondazione per l’Innovazione Urbana”, which created the so-called “Cantiere Consegne Etiche”, a space to promote debate among urban stakeholders aimed to propose innovative solution to face the platform economy. A fundamental step to understand the birth of this platform cooperative is the Chart of “digital workers right in the urban context”, a bottom-up regulation advocated by Bologna City Hall and signed by Mymenù (the traditional food-delivery platform born in Bologna), the main Union (Cigil, Cisl and Uil) and by Riders Union. The Consegne etiche project stems from this local stakeholders’ commitment to regulate (indirectly) the digital labor working conditions. Furthermore, has set up an internal form of regulation drafting a manifest of value organized along 13 points which outline the alternative value dimension of the platform.<sup>2</sup>

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<sup>1</sup> <https://consegnetiche.it/>.

<sup>2</sup> <https://consegnetiche.it/chi-siamo/>.

**Table 1** Consegne etiche's Manifesto of values

Criteria condivisi	Principles
Rispettare i diritti e le tutele del lavoratore	Respect the worker's rights and protections
Garantire un compenso equo e dignitoso	Ensuring fair and decent compensation
Garantire il diritto alla salute e alla sicurezza	Ensure the right to health and safety
Smontare meccanismi reputazionali che alimentano competizioni tra lavoratori	Dismantling reputational mechanisms that fuel competition among workers
Essere logisticamente sostenibili o con impatti ambientali minimi	Being logistically sustainable or have minimal environmental impacts
Garantire la sostenibilità e la trasparenza del rapporto commerciante—rider	Ensuring the sustainability and transparency of the merchant-rider relationship
Conferire valore al servizio territorial	Bringing value to territorial service
Promuovere la sinergia tra gli attori a discapito della concorrenza tra gli stessi	Promoting synergy among actors and contrast the logic of competition among them
Privilegiare i principi dell'open source per eventuali supporti tecnologici	Prioritize open-source principles for possible technology support
Garantire obblighi di informazione ai clienti	Ensure information requirements for customers
Riconoscere il valore delle consegne ed essere in grado di comunicarlo	Recognize the value of deliveries and be able to communicate it
Mantenere vivo il rapporto tra commerciante e cliente	Keeping the relationship between merchant and customer alive
Facilitare processi di solidarietà cittadina	Facilitating citizen solidarity processes

[https://consegnetiche.it/wp-content/uploads/2020/09/2020\\_Cantiere\\_ConsegneEtiche\\_manifesto.pdf](https://consegnetiche.it/wp-content/uploads/2020/09/2020_Cantiere_ConsegneEtiche_manifesto.pdf) [accessed: 12/09/2021]

### *Participatory Dimension*

The Consegne Etiche's governance composition is quite articulated. This characteristic is reflected on the participatory dimension. As reported in the official website, the path toward the creation of the platform co-op has been marked by several steps, with the involvement of local civil society, institutional, and non-institutional actors (such as public operators, neighborhood market, individual, organizations, University, etc.) and the development of co-design and co-participation process.<sup>3</sup> During this phase (which lasted from April to September 2020), the “Fondazione Innovazione Urbana” tried to make bridges between the different interests and needs of the actors involved, which synthesis has been the Consegne Etiche's “Manifesto of Values”. This chart summarizes the 13 main principles that guide the platform co-op governance, which can be framed in an alternative and sustainable experiment, in contrast to the extractive and disruptive Unicorn model (Table 1).

Differently from the traditional model platforms, Consegne etiche relies on a consistent and strong involvement of local markets, shops, and municipal libraries, in order to foster a sustainable urban economy and create virtuous circles.

<sup>3</sup> <https://www.fondazioneinnovazioneurbana.it/progetto/cantiereconsegnetiche>.

### ***Technological Dimension***

One of the main pillars—in accordance with the cooperativism logic—is prioritize the principle of the **open source** for possible technological support. The actor which role is to provide technical support regarding technological solutions is “Squiseat”, a start-up born in 2019 which is devoted to collect and deliver unsold goods by using a **bot** (in a Telegram channel), which is available for free for local merchants that have not any digital marketplace to sold their goods.<sup>4</sup> A final remark worth to highlight is that Consegne Etiche has not an *app*, but is accessible only as a web service. Thus, the technological dimension is rather reduced, a factor that can represent a “brake” for the introduction, diffusion, and use of the platform by inhabitant and public operators.

### ***Lessons Learned in Context***

The “Consegne etiche” case stresses limits and the potentiality for an urban authority to produce alternative digital path through the intersection of interests of a variety of actors. The political will to minimize the sectoral lean platforms’ disruptive effects on working condition and public space, as well as on environment, had made possible the convergence of a plurality of ideas aimed to promote co-participation and co-design process. In many cases this process has been supported and advocated by Bologna City Hall and the related agency/hub (namely, “Fondazione per l’Innovazione Urbana”) with the involvement of the effervescent civil society context. From this breeding ground is born Consegne etiche.

The difficulties regarding Consegne etiche (which are detectable in many platform co-ops experiences) concern the technological capacity and the scalability of the experiment, which cannot be comparable to unicorn model, which is based on a huge venture capital leverage: local authority does not hold the tools to invest such an amount of capital. Nevertheless, the platform co-op of Bologna has tried to fit into an alternative niche without entering into direct competition with the big players of the delivery sector, trying to enable a virtuous circle by involving local public operators, namely municipal libraries and neighborhood markets.

### **Lisbon: Short-Term Rental Regulation**

This second considers an initiative implemented by the municipality of Lisbon, with the goal of regulating short-term rental industry and related impact on housing policies through the development of urban containment zones.

Containment zoning is a local policy which has been approved in 2019. It defines a maximum quota (25%) of short-term rental establishments, in Portuguese known as AL (*alojamento local*), for specific districts within Lisbon city center. The impact of the Portuguese tourist market expansion along the decade before the pandemic outbreak of COVID-19 led to an exponential increase in short-term rental offers in Lisbon city center. This process has generated an increase in the cost of rents and has led to a reduction in the number of inhabitants in the various districts of the center.

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<sup>4</sup> [https://www.fondazioneinnovazioneurbana.it/images/RINNOVARE\\_CANTIERI/2020\\_05\\_26\\_Cantiere\\_ConsegneEtiche\\_report.pdf](https://www.fondazioneinnovazioneurbana.it/images/RINNOVARE_CANTIERI/2020_05_26_Cantiere_ConsegneEtiche_report.pdf).

Faced with these dynamics, there was a reaction from the citizens and inhabitants of the Portuguese capital, with the aim of protecting their housing conditions. The policy initiative discussed in this chapter are the result of these reactions, aiming at putting short-term rent under control. However, if we look at the actual effectiveness of these policy initiatives, as well as their capacity to envision technological solutions to the problem of the platformization of short-term rental sector, the measures here discussed show a contradictory picture.

### ***Regulatory Dimension***

Until the summer of 2018, the possibility of establishing urban containment zones for ALs in urban centers was a specific competence of the central government. With Law 62/2018,<sup>5</sup> which alters the regime of use and exploitation of ALs, this competence passes to the municipalities (the process leading to the transmission of these competences will be explained in the next session). After the approval of this law, in October 2018 the municipal assembly approved a recommendation to the city government to promulgate a regulation for AL activity, and to define urban containment zones. In the period between the approval of this recommendation and the entry into force of this regulation, new registers for AL activity were suspended within the central areas of the city.<sup>6</sup> The final regulation establishing urban containment zones in some of the neighborhoods in the center of Lisbon have been approved on 7 November 2019.<sup>7</sup>

In addition to defining these containment zones, the approved regulation also provides for two other mechanisms for supervising the AL sector: the publication of an annual technical study on the effects of this measure, with the aim of monitoring the development of AL, redefining its parameters, and adapting the regulation to any changes; and the establishment of an accompanying commission for the AL sector. This commission's activity lasts one year, and its role is decisive, its main tasks being: (a) Follow up and monitor the execution of the present Regulation; (b) Formulate proposals and recommendations, whenever it deems appropriate; (c) Prepare opinions requested by the municipal bodies or external entities.<sup>8</sup> However, both the discussion of the technical rapporteur on an annual basis and the implementation of the commission have been diastatic. With regard to the technical rapporteur,

<sup>5</sup> <https://dre.pt/home/-/dre/116152179/details/maximized>.

<sup>6</sup> <https://www.cidadaosporlisboa.pt/2018/10/09/recomendacao-037-06-pela-elaboracao-de-um-regulamento-relativo-A-atividade-do-alojamento-local-no-municipio-de-lisboa-E-de-uma-deliberacao-fundamentada-com-vista-A-suspender-novos-registos-ate-A-su/>.

<sup>7</sup> <https://dre.pt/web/guest/pesquisa/-/search/125933896/details/normal?!=1>.

<sup>8</sup> According to the law, the composition of the Committee is as follows:

- The Mayor of the Municipality of Lisbon, or the Alderman in charge of urbanism, who presides;
- The Municipal Director for Economy and Innovation or a representative appointed by him;
- The Municipal Director of Urbanism or a representative appointed by him/her;
- The Municipal Director of Housing or a representative designated by him/her;
- Three Municipal Deputies, to be designated by the Municipal Assembly;
- A person of recognized academic and scientific merit in the areas of urbanism and tourism.

there was a delay of more than a year, while the commission was never actually convened and formalized.

### ***Participatory Dimension***

The approval of urban containment zones is the result of the combination of bottom-up and top-down participatory processes running at different scales, including the protests of urban movements for public housing toward the government of the city, the proactive capacity of civil parishes (sub-municipal bodies elected by citizens) to condition the implementation of these policies. Finally, this debate around the regulation of ALs running in Lisbon proved capable to condition the activity of the central government.

To give a clear picture of this process, it will be good to follow the chronology of the events of the last years, which led to the formalization of urban containment zones.

In May 2017, the first citizens' initiative was launched to stop the proliferation of AL. The title of the petition is very clear: "Putting the brakes on AL and saving what's left of renting".<sup>9</sup> Following this petition, three recommendations were debated by the municipal assembly in July of the same year and, despite some of the points were rejected, two essential points are approved.<sup>10</sup> In October of the same year, at the same time as the local elections, an independent list named Citizens for Lisbon (part of the coalition that won the elections) introduced the need for a profound revision of the legal framework of AL activities, with the aim of limiting the authorizations granted.<sup>11</sup> In December 2017, civil parishes promoted a study with the aim of: "*provide technical underpinning for improved political action at the local level, trying to respond to urgent issues of very significant impact and avoiding short-term, case-by-case, unsubstantiated solutions*", in the regulatory action of AL activities.<sup>12</sup> This study had an important influence on the decisions that were taken by the municipal chamber in the following period and shows the existence of a conditioning by the local parishes on the city government that does not pass through the traditional institutional mechanisms. Immediately after the local elections, which awarded victory to the coalition led by the Socialist Party, a motion was passed in January 2018 for the alteration of the legal framework of AL activity, reinforcing the need

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<sup>9</sup> <https://www.am-lisboa.pt/401500/1/007701,000383/index.htm>.

<sup>10</sup> "*Support the urgent need to establish, in the State Budget, a positive discrimination in the taxation of long term renting, thus directly encouraging the urban renting market*" and "*Given that local accommodation has a very diverse impact in the various areas of the city and country, propose that the Government and Parliament take the legislative initiative to allow municipalities the power to define, in identified and duly justified areas, maximum limits to the number of dwellings for local accommodation, so as to balance this market with the demand for long term rentals, and to guarantee the necessary sustainability of this balance*" <https://www.am-lisboa.pt/302000/1/008133,000071/index.htm>.

<sup>11</sup> [https://www.cidadaosporlisboa.pt/wp-content/uploads/2019/10/Programa\\_Governo\\_Lisboa\\_2017-2021.pdf](https://www.cidadaosporlisboa.pt/wp-content/uploads/2019/10/Programa_Governo_Lisboa_2017-2021.pdf). See p. 30.

<sup>12</sup> "NOVAS DINÁMICAS URBANAS NO CENTRO HISTÓRICO DE LISBOA" <https://www.am-lisboa.pt/documentos/1532871210M3kNV7ed9Mn88GP6.pdf>.

for municipal government action vis-à-vis the central government and the national parliament, to “*enable municipalities to limit authorizations granted for specific areas, by establishing quotas to ensure a balance between permanent housing and tourist use*”<sup>13</sup>

Through this process the Law 62/2018<sup>14</sup> was enacted in August 2018, allowing municipalities to establish urban containment zones.

However, the approval of a municipal AL regulation for Lisbon had to wait until November 2019. During this time, the assembly had to approve, in the October of 2018 a formal commitment,<sup>15</sup> already mentioned above, mandating the municipal government to develop a study on the impact of tourism in the city,<sup>16</sup> and suspending the registration of new AL activities in the areas of the historic city center, until the promulgation of the containment areas.<sup>17</sup>

This process reflects the variable geometry of powers between bottom-up actions and institutions situated at different scales. However, is important to emphasize that this process, described as a participatory process, didn’t actually follow institutionalized mechanisms of participation. Indeed, an initial citizens’ proposal succeeded in influencing the public debate, and on the other hand, through an independent group, in becoming part of the city’s government agenda. This pressure has conditioned the municipal government to act with the central government, in order to obtain a greater room for maneuver in regulating AL. The local parishes most affected by the expansion of ALs also played an important role in pressuring higher institutional levels.

### ***Technological Dimension***

From a technological point of view, the implementation of containment zones reflects is the inability of the municipal chamber to establish agreements—and enforce them—with the digital short-term rental platforms. This undermines, firstly, the monitoring capacity of the sector and, secondly, the effectiveness of the policies themselves. This last consideration is particularly true for containment areas.

The City of Lisbon has 19,292 ALs establishments, which provide maximum accommodation capacity for about 111,000 people. For the regulation of this economic activity, the municipal authority has established a licensing and registration system. The evolution of the number of AL registrations reveals a successive and intense increase of units, starting in 2014, culminating in 2018, the year in which the suspension of registrations began, with the highest annual value of new registrations (6,812) The same evolution translated into percentages shows that the most significant years in the registration of new units are 2014 and 2015 (variations of 156% and 198%, respectively).

<sup>13</sup> <https://www.am-lisboa.pt/301500/1/008839,000413/index.htm>.

<sup>14</sup> <https://dre.pt/home/-/dre/116152179/details/maximized>.

<sup>15</sup> <https://www.am-lisboa.pt/302000/1/010613,000421/index.htm>.

<sup>16</sup> <https://www.am-lisboa.pt/documentos/1541457589J6oDH6ht2Bk64PK0.pdf>.

<sup>17</sup> <https://www.am-lisboa.pt/301000/1/010751,000482/index.htm>.



As of 2018, and with 2019 marking the beginning of the urban containment zones, 1,961 new records are still recorded. In 2020 and early 2021, the influence of the COVID-19 pandemic, marks negative evolution, resulting from the decrease in new registrations and the cessation of several existing ones. The period prior to suspension and containment has an average annual growth rate of around 100%, while from that date until April 2021, the balance is around 20%.

### ***Lessons Learned***

The strategy chosen by the Lisbon City Government to deal with the impact of the tourism market on the housing sector is depowered by 2 elements: (1) first, the limited monitoring and control capacity of the city, that makes it hard to enforce the regulation, and (2) the lack of a clear fiscal differentiation between the different typology of rental relations (short term vs. residential).

In this sense, this case led to provide two indications. The first one is the need to structure a policy of containment of AL activities, establishing different legal regimes, with a tax system oriented to reduce the concentration of ownership. Secondly, Lisbon should reinforce its monitoring and supervisory action, through the signing of protocols with digital platforms for the transmission of data, with a short and medium-term time frame, and making this data public and accessible to all. This measure, in spite of the fact that it is foreseen as a prerogative of the Municipal Commission for the activity of AL, as we have seen in the municipal regulation for urban containment areas mentioned above, has never been carried out. Therefore, a revision of these legal provisions cannot be separated from the full application of the legal measures, and the strengthening of the mechanisms for monitoring and supervising the sector.

### **Barcelona: DECODE (+ Decidim)**

Decentralized Citizens Owned Data Ecosystem (DECODE) is a project that has received funding from the European Union's Horizon 2020 programme, but its implementation interacted with a complex and multi-layered network of institutional, social, and technological actors composing the urban digital ecosystem of Barcelona.

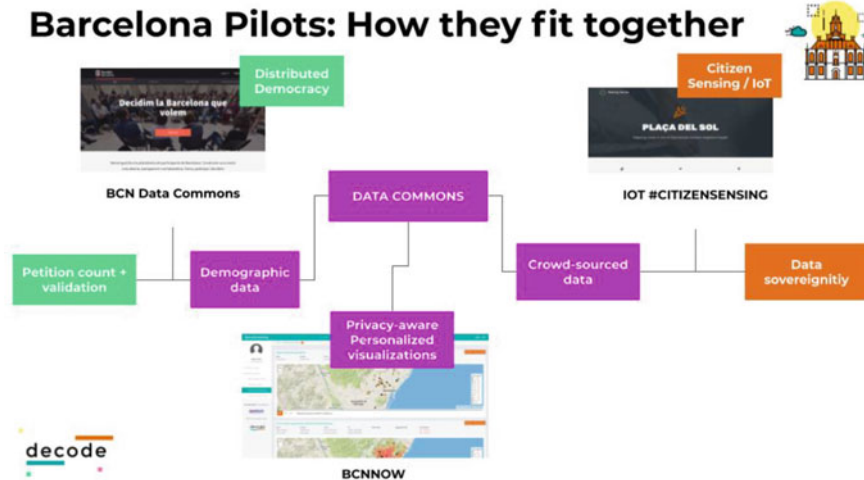
The case of DECODE is more complex than the other two just presented, because it does not refer to a specific innovation related to a sectoral platform but focuses on a project that aimed to strengthen the digital sovereignty of citizens and explore the potentiality of data commons through the active involvement of social and institutional actors of the city, first in an experimental setting (a pilot) and then by standardizing the results. The digital sovereignty is here intended as the control of citizens on their data, including the possibility to make them "data commons for the public good".<sup>18</sup>

This very complex project can be simplified in two core elements.

First, a set of technological tools and in particular a data wallet (DECODE app) has been developed, tested, and deployed. This app enables full control of users over their data and allows each user to choose which personal data to share with the

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<sup>18</sup> <https://www.decodeproject.eu/have-more-questions>.



**Fig. 1** DECODE pilots in Barcelona. *Source* Sagarra et al. (2019, 3)

different applications that interact with the DECODE app. Being the app based on decentralized ledger technologies, the community of users replaces the public authorities (or authorized third parties) that normally play the role of identity providers in most electronic identification systems in Europe.<sup>19</sup> Users can therefore decide what kind of use to make of their data: whether to share them, or to give them up, or to enhance them, etc.

Second, the DECODE project itself deployed three different pilots in Barcelona with the double purpose of testing the DECODE app, and at the same time to experiment its integration within the urban digital ecosystem. The testing entailed indeed the integration with the Barcelona City Hall data architecture, the integration with the dedicated participatory portal DECIDM, the integration with sensors and devices hosted by inhabitants with the purpose to crowdsource and share data regarding environment, pollution, traffic, etc. Finally, the pilots include also the deployment of new tools that would allow to explore the potentiality of the reuse of data commons, as the platform BCNNow,<sup>20</sup> an open-source environment that enables citizens to easily explore city-related data (Marras et al., 2018) (Fig. 1).

As a general result the urban digital ecosystem of the city has been cross-fertilized with concepts and practices of data commoning both in the technological and regulatory domain, paving the way for the standardization and long-term sustainability of the solutions experimented (Sagarra et al., 2019)

<sup>19</sup> <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eID>.

<sup>20</sup> <http://bcnnow.decodeproject.eu/>.

### ***Regulatory Dimension***

The regulatory dimension of DECODE is grounded in the active engagement of the Barcelona city council in the project. During the project itself, the collaboration of the City Council has allowed to test the feasibility of the proposed solutions into real-world scenarios, making a strong impact regarding innovative data policies and approaches tested by cities. It included the testing of a legal framework for data commons that moved on the thin ice between the enforcement of personal data protection and the opening and publicly releasing of anonymized data, with the additional challenge of using innovative technologies. According to the final report of the pilots has been working during the project lifetime, but “legal fit of the solutions will only be properly tested after they have been rolled for a long period of time in production, as legal hazards can be foreseen but are only fully known after real issues emerge”.

Looking at the long-term impact on regulatory frameworks it is worth mentioning that DECODE’s approach has influenced the ethical digital standards set up by Barcelona City Council.<sup>21</sup> These standards also include a section dedicated to technological sovereignty where best practices tested in the project have been translated into prescriptive norms for the future technological choices of the urban authority. Not only the innovations tested in decode scaled up and impacted local regulations but indirectly there is an attempt to scale out technological sovereignty principles by leveraging the behavior of service providers through public procurement.

### ***Participatory Dimension***

The Decode Project involved several non-institutional actors. It is possible to distinguish at least two levels: the international partnership that ran the Horizon2020 project, and the involvement of urban actors in the pilot in Barcelona.

At the level of the partnership, it is important to stress that DECODE was coordinated by the Municipal Institute of Informatics (IMI), a local autonomous body of the Barcelona City Council that was born in 1990 with the aim of providing all information and communication technology (ICT) services to the Barcelona City Council and related public agencies. In addition, the partnership included the University of Catalunya and two local software houses (EureCat and Dribia Data Research S.L.), representing a mix of expert and applied knowledge.

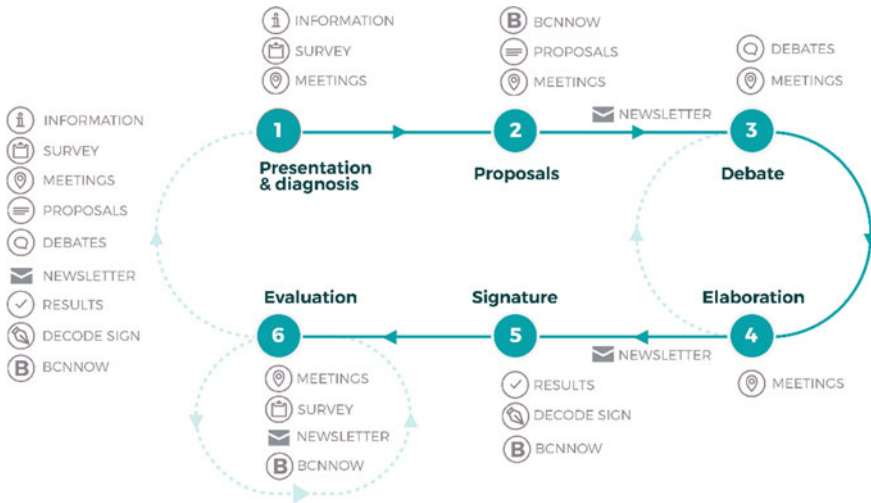
At the city level, in addition to the political and administrative staff of the urban authority, also groups and networks of inhabitants have been involved in pilots. A relevant group is Metadecidim,<sup>22</sup> “the democratic community that manages the Decidim project in all its dimensions and has a direct role in the configuration and management of the Decidim Platform for its use in Barcelona”.<sup>23</sup> The community has been involved with the purpose to define requirements for the integration of the DECODE tools with the Decidim.barcelona platform, used by more than 60,000

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<sup>21</sup> <https://www.barcelona.cat/digitalstandards/>.

<sup>22</sup> The website of the Metadecidim Community is <https://meta.decidim.org/>.

<sup>23</sup> The official instance of Decidim used in Barcelona is available at: <https://www.decidim.barcelona/>.



**Fig. 2** DECODE + Decidim: citizen engagement scheme. *Source* <https://tecnopolitica.net/en/content/digital-democracy-and-data-commons-dddc/>

inhabitants involved in a variety of citizen engagement initiatives carried out through it. In this manner the first actual use of the DECODE app has been to authenticate users to take part in public decision-making processes and participatory democracy experiments (Fig. 2).

**Technological Dimension**

The technological dimension is central to this project, which has set the objective of developing technologies capable of entrenching in their code ethical principles and a political vision such as that of technological sovereignty (to which is also linked a vision of the economic value of personal data).

The main technological innovation is the DECODE app, based on an innovative technology such as distributed ledger (DLT). This app performs two functions. First, authenticating users that in this manner can access digital services that require strong identification without having to provide their data each time for registration. The second feature of the DECODE app is the “data wallet”. In practice, it is a virtual “wallet” of personal data that is stored directly on the user’s mobile: the users from time to time can decide which data to transfer to the different services asking for access to their personal data and also establish how to reuse it by third parties. The combination of these two elements (DLT+data wallet) has the objective to enforce users’ command on their personal data and enable the possibility to license their anonymized data as digital commons.

Around the DECODE app, the technological infrastructure necessary for its operation has also been developed and adapted, including DECODE OS (a private and

anonymous peer-to-peer network for getting DECODE up and running) and Zenroom (the smart contracts engine powering DECODE).<sup>24</sup>

Finally, in order to run the pilots and test on the field the usability of the DECODE app, integrations have been made with the data management and publication system of the city of Barcelona, including the main open data portal and a new visualization platform developed ad hoc to explore the potential of data handled via the DECODE app.

All software and hardware solutions developed under this project have been publicly released along with related documentation on GitHub with licenses pertaining to the FLOS domain.<sup>25</sup> It is also important to remember how the collaborative development of the code of the various digital decode solutions was based on the dialogue between expert knowledge (represented by the consortium's tech partners and more generally by the community that contributed to the development and consolidation of the code) and non-technical knowledge, through the active involvement of citizens and administrative staff in defining the requirements and specifications necessary for integration into the digital ecosystem of the city.

### *Lessons Learned in Context*

This case study (unique among those presented in this report) observed the effects and potential of an international research and innovation project (funded under the Horizon2020 programme) which had its center and field of experimentation in the city of Barcelona. A first lesson that can be drawn, however obvious, regards the opportunity that international research projects can offer to experiment with innovative techno-political solutions to the challenges posed by the platformization of the urban digital ecosystem. If we consider the city profile of Barcelona described in Sect. 3.1, and in particular the characteristics of its digital urban ecosystem, it is evident that a project like DECODE has been enabled by the combination of (i) existence of a public debate over the urban challenges of digital platforms and political will to tackle them, and ii) open digital infrastructures, skills, and institutional capacity to develop and experiment technologies consistent to the political objective of improving technological sovereignty (Lynch, 2020). Indeed, this is the only case that tries to address the challenges of digital platforms with a transversal approach that is not necessarily linked to a specific sectoral policy.

At the same time, it is useful to wonder to what extent the innovations tested in DECODE are capable of producing long-term effects, mitigate the disruptive impact of platformization of the urban, and eventually scale up and out the innovation proposed (Moore et al., 2015). First, in order to generate organizational change within the urban authority it is necessary to consolidate regulatory frameworks and policy instruments capable to enforce the principles of data sovereignty. In this perspective we have seen that DECODE tried to implement regulatory standards (in particular through the ethical digital standards approved by the IMI), as well as to ensure the compliance between the technologies developed and the prescriptions of GDPR.

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<sup>24</sup> <https://tools.decodeproject.eu/>.

<sup>25</sup> <https://github.com/decodeproject/>.

Second, to reach larger numbers of users and expand the community of users it would probably be necessary for a sovereignty-enforcing tool to achieve the status of technological standards for the urban ecosystem and to establish as a requirement for the delivery of digital services not only in the public domain but including also commercial digital services.

## 5 Part III—Conclusions: Policy Orientation for Platform Governance at Urban Scale

The conclusions of this chapter are organized according to the three primary variables of our structure: regulatory framework, urban public sphere, and urban technological agency. These conclusions should be interpreted in conjunction with the case studies detailed herein, as well as those comprehensively covered in the “PLUS Guidelines for policy makers on socioeconomic larger impact on urban economies” (Secchi et al., 2021).

Regarding the **regulatory framework**, urban contexts where **administrative decentralization** has gone further are those where **urban authorities have the greatest room for maneuver**. From this point of view, an active **trans-scalar collaboration involving the different levels of government** seems to be a precondition for implementing strategies to regulate or mitigate the impacts of lean sectoral platforms. Nevertheless—and in some way counter-intuitively—cities may exercise a **soft power**, as in the case of Bologna’s **promotion of a regulatory framework**—the so-called “**Chart of digital workers’ rights in the urban context**”—to which urban actors of the platform economy can voluntarily adhere.

Since the entrenchment of digital platforms may **generate conflicts between groups of inhabitants with different interests**, a recommendation stemming up from this chapter is to consider **the role of infra-municipal institutions to offer a bottom-up understanding of the local impact of platform economy**. Regarding the policy areas investigated in this chapter, some findings and recommendations for the Tourism sector concern the necessity to **consolidate patterns of regulation of short-term rental**. If the cities studied in Plus have taken some measures to limit the negative effects of Airbnb by introducing specific initiative and norms (e.g., a licensing system and other measures aimed to limit the concentration of listing), what emerged from our study is the **difficulty to enforce some of these norms**.

Regarding the urban public sphere, the main recommendation emerging from this chapter is the need to **broadening the urban governance to non-institutional actors** in order to make the public sphere more inclusive. **Integrating platform-related issues in structured (top-down) democratic innovations can enable the creation of bottom-up alternatives** to Unicorn platforms, for example, through the **Participatory budgeting** tool. It is the case, for example, of platform cooperatives such as “**Consegne Etiche**” in Bologna. The cases of **DECODE** app in Barcelona

shows up the relevance to open the **public debate on the same digital transformation strategies pursued by the cities**. Thus, municipal authority, with a democratic governance approach and broadening the participation channels, may play a **supportive role by providing incentives and dedicated funding opportunities**.

Finally, related to the urban technology agency variable, a remarkable recommendation regards the topic of the **technological sovereignty of cities** and the investment in open technological infrastructure that enable the creation of alternative to lean sectoral and unicorn platforms. The incorporation of principle of collaboration and cooperation between urban stakeholders in the code these infrastructures is pivotal to guarantee a real enabling process. The two key principles here recommended are the use of the **FLOS approach** and **technological sovereignty**. As regards to the former, the cases of the **digital ecosystems of Barcelona** reveal the consistency in adopting such principles. Anyway, our analysis confirms that an open technological data and artifacts approach *per se* is not enough to guarantee public value generation in urban digital ecosystem. Thus, it is recommended to consider the shaping and consolidation of “**open government**” strategies in relation to the “**technological sovereignty**” of cities. In this regard, already existing experiences of **forms of data commoning** represent a promising path, although it is still experimental in practice. Even in this case the issue of data management seems to have a decisive relevance, particularly the **management of personal data and the intellectual property of the knowledge** produced by the inhabitants, organizations, and institutions insisting in the urban space. An important element observable in the report is the **discrepancies related to the levels of digital literacy and collaborative culture** of the inhabitants, which affect the concrete development and implementation of digital services: where digital literacy and skills are higher, as in the case of, Barcelona, achieving this objective is greater, also depending on the extensive **dissemination of digital skills and collaborative culture** in the population. Thus, digital literacy represents a crosscutting enabling factor. A further recommendation proposed by this report focuses on the means to **promote and regulate an open digital economy in order to incentivize the creation of public value**.

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# Social Protection, Basic Income and Taxation in the Digital Economy



Andrea Fumagalli, Sandro Gobetti, Cristina Morini, and Rachele Serino

## 1 Introduction

Digital platforms represent the technological infrastructure that has become so widespread in the organisation of production, in the transformations of work and in consumer choices that the term “platformisation of work”<sup>1</sup> has been coined as part of the so-called “digital transformation”<sup>2</sup> of society.

In the space of a few years, thanks to the technological acceleration in the field of computing, nanotechnology and algorithms an increasing amount of data—which today represents one of the most relevant sources of capitalist valorisation and accumulation—has been managed.

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<sup>1</sup> We find the concept of platformisation of work, used by Huws (2020) to show the overcoming of the standard work model and applied to forms of work–life organization in the platforms and the network in general, very effective. Such *precarious* working condition has accelerated with the spread and development of digital platforms. The “platformisation” of work generates a series of critical issues which, if not resolved, risk a reverberating impact on society as a whole.

<sup>2</sup> The term “digital transformation” denotes a set of predominantly technological, cultural, organisational, social, creative and managerial changes, associated with applications of digital technology, in all aspects of human society (Fors & Stolterman, 2004).

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The pervasiveness of platforms has also invested the territories fostering a process of globalisation that transcends national borders, and a more efficient exploitation of new types of economies of scale. Communication and space thus become the flywheel of value creation that increasingly tends to manifest itself in the financial markets. It is therefore not surprising that the companies with the highest capital stock value trading on the New York Stock Exchange are precisely the giants operating in platform capitalism (the so-called GAFAM: Google, Amazon, Facebook, Apple, Microsoft).

Among the many questions that could be raised, there are two areas that require rather urgent answers, especially since platform capitalism has disrupted the traditional systems of taxation and public welfare. In this paper we shall focus on social protection, basic income and taxation.

1. Platform work escapes traditional definitions. Current European labour law needs reshaping, since the traditional worker-employer relationship is no longer a direct relationship but it is intermediated by the algorithm (the platform). This applies to the worker, posing the problem of defining the degree of prescriptiveness and hetero-direction of the task performed. But it also applies to the so-called “prosumer”,<sup>3</sup> i.e. the person who, by using platforms as a consumer, turns into a producer at the very moment when their data and the information provided trigger forms of “business intelligence” (collection, selection, standardisation, profiling, prediction, etc.). The transformation of data from use value to exchange value underlies the valorisation of digital platforms. A valorisation that escapes any fiscal control even more so if it is the result of a digital activity that is not considered productive and therefore not remunerated. The platformisation of work, the widespread precarity and the insecurity of workers, as also the presence of “free digital labour”, lead to the need to redefine social protection criteria not only in terms of guaranteeing forms of income necessary for human life but also in terms of a fairer distribution of income from profits generated in the digital economy by the use of technologies themselves.
2. Platforms offer in most cases intangible services, which escape the traditional forms of measurement since traditional taxation is still based on the taxation of production factors (labour and machines) and territorial (national) taxation. In the presence of digital platforms, production factors become less definable. In platforms, in fact, the control over production takes place through forms of flow control, expropriating the content through the role of intellectual property, outside the ownership of the means of production, which in most cases remain in the hands of the workers. Furthermore, productive activity has become transnational and thus poses the problem of its measurement. National tax systems lose their effectiveness and are not able to regulate this new type of economy in terms of fair taxation.

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<sup>3</sup> The term *prosumer* was coined in 1980 by Alvin Toffler, as a mix between *producer* and *consumer*. Technological breakthrough and a rise in user participation blurs the line between production and consumption activities.

## 2 Labour and Social Protection

The most prominent element of platform work or “platformisation of work” is the way in which it often relies upon and expands a non-standard type of employment relation. Many countries legally recognise a binary idea of labour: either employed or self-employed. Whereas the employed are given rights and protections, the self-employed are deemed to be working for themselves and therefore do not enjoy the basic rights and protection of other “typical workers”.

Most notably, this is expressed for those deemed to be self-employed. As one study found, on average, 55% of self-employed workers in the EU lack unemployment benefits, 38% lack sickness pay and 46% of self-employed women lack maternity benefits. In contrast, only 0.1% of full-time workers in the EU lack these benefits (Forde et al., 2017).

Social protection has traditionally been designed around workers in standard employment and that has left non-standard workers with patchy coverage (Carter et al., 2019). Where the standard employment model is absent, workers may well find themselves unable to access the same social protections that are available to other workers.

With regard to clarifications on social protection and platform work, ILO has distinguished between four types of social protections: social protection linked to a contract with a specific employer; social protection linked to salaried employment; social protection linked to participation in gainful employment (including non-salaried employment) and social protection linked to residency status. Commonly, platform workers find themselves outside the formal classification of “worker” or “employee” that is used to determine access to social protection. As a result, platform workers are excluded from important social protections, such that they “bear the risk when there is insufficient work, when clients refuse to pay, when payments are low, or even for paying taxes to the government” (Forde et al., 2017).

The European Trade Union Confederation (ETUC) “in the past, has already underlined that self-employed workers lack adequate social protection, with notable disparities from one country to another. Full social protection rights such as health assistance, sick leave, unemployment or parental/maternity leave are usually responsibility of the self-employed workers themselves. Platform companies transfer the costs of the social protection, that they are not granting to their workers, to society as a whole. The present situation implies that companies that use the ordinary employment relationship are subsidising the platform companies; this could generate enormous pressure on the sustainability of the redistributive institutions that characterise the welfare state. There are also legislative loopholes that do not provide social protection for non-standard workers. As regards for non-standard workers and workers in platform companies (including the self-employed), a comprehensive approach should be taken in which non-standard workers enjoy the same protection as ordinary workers” (ETUC, 2020).

### 3 The Urgency of a New Approach. Guaranteed Minimum Income and Unconditional Basic Income

Social protection should be reshaped at a more universal level, as the report *The Social Protection of Workers in the Platform Economy* also suggests, (Forde et al., 2017) in order to reduce differences in treatment across different forms of work and to expand existing social protection schemes. This means recognising and ensuring: old age security systems for all workers, irrespective of formal status in employment law; continuity of social insurance and workers' rights when moving from one job to another. In addition, a more universal social protection should aim to reduce or abolish requirements for continuity of employment for eligibility to social protection; promote systems based upon general taxation and promote universal benefits as part of social protection systems, which remove complex rules concerning eligibility. In the longer term, consideration should be given to how existing social protection schemes might be adapted to a growing variety of non-standard forms of work. This recommendation is in line with the aspirations and aims of the European Parliament's Resolution on the Collaborative Economy (EP, 2017) and under the framework of the European Pillar of Social Rights (EC, 2017).

During the COVID-19 pandemic, the issue of lack of social protection became even more evident. Platform workers—as a result of their employment status as self-employed—have been excluded from sick pay, unemployment benefits and most government support schemes for COVID-19. Standard employees have seen extensions to sick and unemployment benefits, as well as the widespread adoption of various short-time work schemes. In the following paragraphs, we shall deal with the issues that are gaining ground in the political and public debate in terms of social protection, and, particularly, in relation to income guarantee measures. The introduction of forms of income support grew in intensity and visibility precisely during the lockdown period prompted by the COVID-19 outbreak (early 2020) when, in addition to the global health crisis, there was a deterioration of social and economic conditions all over the world. So much so that, according to the *Living Paper Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures* (Gentilini et al., 2020), as of 3 April 2020, a total of 106 countries have introduced or adapted social protection and job measures, 26% more than previous week, while the number of measures grew by nearly 50%, from 283 to 418. Within social assistance, cash transfer programmes remain the most widely used intervention in 71 countries. Added to this are the many pilot projects, the unconditional basic income experiments launched in many countries around the world (Fumagalli et al., 2021).

In order to provide a work tool, we shall give an overview of *guaranteed minimum income* and *universal and unconditional basic income* schemes so as to provide some food for thought on how to improve social protection.

### 3.1 *Guaranteed Minimum Income*

Guaranteed minimum income is a means-tested cash benefit provided by a government to all citizens, or residents, who are defined as needy or are at risk of poverty, either on individual or family basis. This measure often includes work-related requirements of some kind (such as that the recipient be engaged in a job search, job training, or community activities) as a condition of programme eligibility. In most of the cases guaranteed minimum income is a benefit with no expiration date and is paid “until the recipient’s financial condition has not improved” (BIN Italia, 2012). Its main goal is to guarantee citizens or families a minimum income to live a decent and dignified life. In addition to other forms of social protection for workers (such as unemployment benefits, health provisions, maternity/paternity leave), healthcare system and public education, it is one of the pillars of the European social model.

To be entitled to the unemployment benefit workers must have paid enough pay-related social insurance contributions, in case of guaranteed minimum income eligibility is associated with criteria defined in the provision for those who do not have sufficient means to support themselves. If the unemployment benefit includes a contributory regime (funded by workers’ and employers’ contributions), the guaranteed minimum income (non-contributory) scheme is funded by general taxation.

Eligibility is usually determined by a means-test which assesses the household’s level of income or assets against a defined threshold. The eligibility criteria also include that the recipient be engaged in a job search, and recipients usually stop receiving the benefit when they found a job. In some European countries, minimum income support schemes include assistance for other basic needs, particularly housing costs, health care, public transports, etc. In many cases, they focus on specific contingency or particularly vulnerable groups (Gobetti & Santini, 2018).

However, according to the report *The platform economy and precarious work* (Hauben et al., 2020), minimum income support schemes could be “highly relevant for platform workers for several reasons: the fragmented and unpredictable nature of the work, intermittency in service provision, the (very) low payments, and unstable and insecure income”.

In recent years, many EU resolutions<sup>4</sup> have continuously focused on the importance of the minimum guaranteed income scheme in all Member States and the proposal for an *adequate minimum income* is one of the *20 European Pillar of Social Rights*.<sup>5</sup>

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<sup>4</sup> One of the last is dated 28 September 2022: the Recommendation proposed, sets out how Member States can modernise their minimum income schemes to make them more effective, lifting people out of poverty, while promoting the labour market integration. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_22\\_5706](https://ec.europa.eu/commission/presscorner/detail/en/ip_22_5706).

<sup>5</sup> [https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/european-pillar-social-rights-20-principles\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/european-pillar-social-rights-20-principles_en).

### 3.2 *The Universal and Unconditional Basic Income (UBI)*

At the turn of the new Millennium both civil society organisations and national governments across the world have been debating over the idea of an economic right for all. Basic income pilots have been carried out both in small and big cities in South Korea, the USA, Canada and the EU, as well as in rural villages in Africa and in India (Fumagalli et al., 2021). The rise of the digital economy, along with the transformations of social protection models, the increase in precarious and flexible jobs, the advent of automation and the increase in the number of people in poverty or risk of poverty, have given greater visibility to the *universal and unconditional basic income* proposal. One of the main reasons for an unconditional basic income rests on the broadly shared idea that social justice does not only refer to the right to decent income, but also to the development of free human activities, as well as self-determination. Also, it refers to a new redistributive economic policy and a new concept of emancipation.

Here are the 5 Characteristics of UBI as defined by the Basic Income Earth Network (BIEN)<sup>6</sup>:

- *Periodic.* It is paid at regular intervals (for example every month), not as a one-off grant.
- *Cash payment.* It is paid in an appropriate medium of exchange, allowing those who receive it to decide what they spend it on. It is not, therefore, paid either in kind (such as food or services) or in vouchers dedicated to a specific use.
- *Individual.* It is paid on an individual basis and not, for instance, to households.
- *Universal.* It is paid to all.
- *Unconditional.* It is paid without a means-test and without a requirement to work or to demonstrate willingness to work.

A wide variety of basic income proposals are circulating today. They differ along many other dimensions, for instance, the amounts of the income, the source of funding, the nature and size of reductions in other transfers that might accompany it, the targeted beneficiaries, etc. However, over the years, a certain uniformity has been achieved on what the key features are. A clearly written definition is provided by the most prominent advocate, Philippe Van Parijs, who defines it as “an income paid by a government, at a uniform level and at regular intervals, to each adult member of society. The grant is paid, and its level is fixed, irrespective of whether the person is rich or poor, lives alone or with others, is willing to work or not. In most versions it is granted not only to citizens, but to all permanent residents” (Van Parijs, 2001). Regardless of the differences among the various definitions, they all have in common the statement that “no conditions must be placed on recipients”.

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<sup>6</sup> BIEN General Assembly, Clarification of definition of basic income, World Congress, July 7–9, 2016, Seoul, South Korea, at <https://basicincome.org/news/2016/10/bien-report-general-assembly/>. The Basic Income Earth Network is a network of academics and activists interested in the idea of a Basic Income.

According to UBI proponents, receiving a guaranteed and secure payment would not affect recipient's willingness to work<sup>7</sup>; on the contrary, it would allow people to choose their job and professional career, thus fostering their participation in the labour market by increasing their bargaining power in relation to poorly paid or precarious jobs. Besides, it would recognise the added value of non-formal jobs (such as care work) and social activities not directly associated with employment. Many advocates argue that it has the potential to raise wages and they also propose the introduction of an hourly minimum wage. In order to respond to opponents of basic income who say it would foster laziness as people would prefer not to work, many supporters argue that as basic income is paid to both employed and unemployed people, it actually would guarantee a better financial position to recipients who do work rather than to those who do not.

Self-determination is another topic that sparked a global debate, in particular in relation to the gender issue thanks also to the involvement of feminist movements in the debate.<sup>8</sup> In this case is seen as a tool for escaping from stereotyped family roles, dismantling the gender wage and employment gap, recognising reproductive work beyond formal work, and for the full recognition of freedom of choice. According to some (Flanigan, 2018), UBI can increase the power of women even within the household, giving them more autonomy and making them less dependent on men's impositions. As Ursula Huws highlights, basic income was a demand of "Women's Liberation Movement that called for 'financial and legal independence' for all women. The feminist logic underpinning this demand is powerful: not only is it degrading for anyone to have to beg or manipulate someone else for their means of subsistence, and materially damaging to that person if the money is not forthcoming; it also destroys the quality of human relationships if they are embedded in dependency" (Huws, 2020).

Another interesting aspect is that a universal basic income would also support those we define as prosumers, that is, those who thanks to the role of digital platforms and the increasing amount of data contribute to the creation of *network value*. A basic

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<sup>7</sup> Here just a few links on some basic income experiments and related research studies: Mayors for Guaranteed Income (USA) [www.mayorsforagi.org/](http://www.mayorsforagi.org/); Guaranteed Income Pilots Dashboard (USA): <https://guaranteedincome.us/>; Effects of a Universal Basic Income during the pandemic (Kenya): <https://poverty-action.org/sites/default/files/publications/Banerjee%20et%20al.pdf>; General Equilibrium Effects of Cash Transfers: Experimental Evidence from Kenya: [www.bin-italia.org/wp-content/uploads/2019/12/general-equil.pdf](http://www.bin-italia.org/wp-content/uploads/2019/12/general-equil.pdf); Basic Income Grant 10 years later (Namibia): [www.bignam.org/Publications/BIG\\_ten\\_years\\_later\\_report\\_2019.pdf](http://www.bignam.org/Publications/BIG_ten_years_later_report_2019.pdf); Signpost to succes. Report of a BICN Survey of Ontario Basic Income Recipients (Canada): [www.bin-italia.org/wp-content/uploads/2019/04/BICN\\_-\\_Signposts\\_to\\_Success-1.pdf](http://www.bin-italia.org/wp-content/uploads/2019/04/BICN_-_Signposts_to_Success-1.pdf); Experimenting with Unconditional Basic Income (Finland): [www.bin-italia.org/wp-content/uploads/2022/09/Experimenting-with-Unconditional-Basic-Income-Experimenting-with-Unconditional-Basic-Income.pdf](http://www.bin-italia.org/wp-content/uploads/2022/09/Experimenting-with-Unconditional-Basic-Income-Experimenting-with-Unconditional-Basic-Income.pdf); Busibi UCT Preliminary analysis on some key outcomes (Uganda) <https://drive.google.com/file/d/1lgicYNhkkU3xWF5ypnhf45bARKCJCQZs/view>; Basic Income: A transformative Policy for India: <https://www.amaazon.com/Basic-Income-Transformative-Policy-India/dp/1472583116>.

<sup>8</sup> Given the extensive literature, we report here only a few works as general references: A/Matrix (2008), Morini (2017, 2020), Schulz (2017), Bennett (2019), Weeks and Thibos (2019), Webster (2019), Goldblatt (2020).



income could be introduced as recognition of the value generated by the production of data that each user of the network gives away for free, using devices (“means of production”) that they have purchased for themselves (personal computers, laptops, tablets, mobile devices, etc.). Like wages are the remuneration of certified labour activity, basic income can be seen also as the remuneration of a not-certified and not-recognised productive activity, as primary income (Fumagalli & Vercellone, 2020).

Despite the many basic income trials and projects around the world, there are no direct and specific basic income experiments targeting platform workers. So, how could it affect them? What effects could basic income produce on platform workers and on precarious workers in general?

The challenge for governments and policymakers is to provide a specific scheme for people who by definition do not have a stable situation or status, and who also do not have the possibility to pay regular and high social contributions.

The extent to which precarious workers worry about job loss can be captured “as a function of the probability of losing one’s current job (job insecurity), one’s ability to find another job (labour market insecurity) and the availability of income support during an extended unemployment spell (income insecurity)” (Birnbau & De Wispelaere, 2020). If the point is not to increase employment at any cost but rather improve people’s chances of finding well-paying jobs, an unconditional basic income can hand a crucial advantage to people by strengthening their bargaining power so as to allow them to choose desired and promising jobs and refuse the low-paying ones that afford them no rights. It is on the basis of such a broad concept of social justice that basic income can revalue work (Van Parijs, 2017).

Basic income could therefore provide non-standard, precarious and platform workers with income security that can allow them to choose a less stressful job or a part-time job without feeling forced to work many hours a week in order to get enough wage to live on. They could even choose not to work for any platform at all and engage themselves in other activities without running the risk of becoming poor.

An exit option amounts to an improved bargaining position by imbuing workers with the “power to say No”. Both the unemployed and the working poor are expected to benefit from the introduction of an unconditional floor of income support (Van Parijs & Vanderborght, 2017). This reduces an important amount of uncertainty among vulnerable and marginalised workers who are often employed in jobs with little or no access to social protection (Kalleberg, 2018).

Quoting again *The Social protection of workers in the platform economy* (Forde et al., 2017): “there is considerable overlap between workers in the platform economy and those engaged in other forms of non-standard and insecure work, which often carries similar risks of non-coverage of social protections. Consequently, we are skeptical of any approach that would seek to treat platform workers as a ‘special case’, by introducing social protection arrangements that applied only to this category of worker. Instead, we would recommend a more inclusive approach, [...] designed to encompass the wider, growing population of non-standard workers. If the growth of platform work has taught us anything, it has shown that we can expect further innovation in employment forms, and therefore an approach that seeks to address wider issues in the coverage of social protections for non-standard workers carries the

benefit of being ‘future-proofed’, at least so far as can be reasonably foreseen”. This reflection encourages us to develop the necessary steps for a “reform of social security systems to accommodate platform workers along with other groups of workers who now find themselves increasingly at risk of not being covered by social protections”.

### 3.3 *An Unconditional Guaranteed Minimum Income*

Another possible scenario could be to provide for an *unconditional guaranteed minimum income* that is not paid to all adult residents but only to those whose income is below the relative poverty threshold. Since they are not all poor at the same level, the benefit could, therefore, provide for an income supplement such as to bring the level of each to the relative poverty line. Decision-makers should promote moves towards universal benefits as part of social protection systems, which remove the need for complex rules and enforcement concerning eligibility. This may already be achieved by extending the current guaranteed minimum income schemes, that is, by making it easier to access these systems and removing any obligation and conditionality on active labour policies.

The proposal for an unconditional guaranteed minimum income should allow people to reject material blackmail, to say “no” to underpaid or unacceptable job offers, thus allowing a greater degree of freedom of choice. It can be provided to all those who are below a certain threshold and converge towards the median level of income distribution. This would allow that as the minimum threshold increases (following the initial introduction of the measure) the number of beneficiaries can constantly increase until it reaches gradual levels of universality (Fumagalli et al., 2021).

The thesis therefore argues that, in an initial phase, the unconditional aspect of the measure should be particularly supported. This would also allow a lower initial cost, limiting the number of beneficiaries and then extending the measure over time up to its universality (Fumagalli, 2018).

Apart from some experiences, such as the one in Alaska,<sup>9</sup> where there is a dividend paid to all residents, it must be said that a large part of basic income experiments and pilot projects around the world have focused on better understanding how an *unconditional*, rather than a *universal*, income can affect beneficiaries.

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<sup>9</sup> To date Alaska is the only State that has officially and permanently implemented a kind of universal and unconditional basic income through the Permanent Fund Dividend (PFD). It is paid to Alaska residents who live in the country. It is financed from a state-owned fund created with a portion of the revenues from publicly owned oil production as well as with royalties collected from the sale of all state-owned natural resources. More information on: <https://pfd.alaska.gov>.

## 4 Taxation Policies on Platform Capitalism: Open Questions

The adaptation of an efficient welfare system to changing working conditions and the emergence of precarious, intermittent forms of work, not always embedded in subordination contracts (typical of platform workers), requires the adoption of new fiscal and funding policies.

The new processes of valorisation, which are based on daily life and no longer only on a work activity certified as such, pose the question of social distribution of income, which goes beyond the labour condition alone.

It is the metropolitan realities, territories and communities that represent the basis of the accumulation process capable of creating wealth that, however, does not return to these very territories.

Among the various possibilities, fiscal intervention is certainly one of the most important in filling this gap.

### 4.1 The OECD Approach

The first of the supranational organisations that analysed the insidiousness of intangible assets and the uncontrolled development of the digital economy was the OECD, which in 2013, with its report *Addressing Base Erosion and Profit Shifting* (BEPS), became aware of the ineffectiveness of its member countries' tax responses, even in the form of best practices. The critical factor lies in the changes inherent in global business practices, which are moving faster than current regulatory standards on taxation.

To facilitate the identification and classification of digital businesses, the OECD has listed a number of features that are increasingly prominent in the digital economy in the *Addressing the Tax Challenges of the Digital Economy* Report (OECD, 2015).

Characteristics present in most of those companies that we can consider part of the digital economy:

1. The dematerialisation of activities and the consequent mobility of them, their customers and the organisation implementing them.
2. The planning of strategies based on the exploitation of network effects (question of *defining the value of turnover and its profitability*).

In general terms, in the area of direct taxation, the main challenges raised by the digital economy fall into three broad categories: *nexus*, which is based on a significant economic presence in the country concerned; *data*, which are relevant for determining the jurisdiction in which value creation occurs; *characterisation* of payments for new digital products.

The digital economy also creates challenges for value added tax (VAT) collection, particularly where goods, services and intangibles are acquired by private consumers

from suppliers abroad. This is partly due to the absence of an effective international framework to ensure VAT collection in the jurisdiction of consumption. For economic actors, and in particular small and medium enterprises (SMEs), the absence of an international standard for charging, collecting and remitting the tax to a potentially large number of tax authorities, creates difficulties and high compliance costs.

While in the field of indirect taxation there are still many difficulties, since a single tax framework from Europe would be needed, in the field of direct taxation, the OECD has formulated specific proposals<sup>10</sup>:

- a. the development of a new nexus between a business and a country based on the concept of “significant economic presence”, through which appropriate methodologies for determining income in line with those existing in a country can be defined;
- b. the imposition of a withholding tax on the so-called “digital transactions”;
- c. the introduction of an “*equalisation levy*” on digital transactions to serve as a way to tax a non-resident enterprise’s significant economic presence in a country in order to ensure equal treatment of foreign and domestic businesses.

The *nexus* in the form of significant economic presence is based on a taxable presence in a country when a non-resident enterprise has a significant economic presence<sup>11</sup> in a country on the basis of factors that evidence a purposeful and sustained interaction with the economy of that country via technology and other automated tools. These factors would be combined with a factor based on the revenue derived from remote transactions into the country, in order to ensure that only cases of significant economic presence are covered, to limit compliance costs of the taxpayers and to provide certainty for cross-border activities.

In this regard, the OECD highlighted that the collection of the revenues earned from customers in a country (*revenue-based factor*) could be considered a basic factor for establishing nexus in the form of a significant economic presence in the country concerned, and underlined the need to take into account all remote digital transactions concluded by the non-resident enterprise with in-country customers.

The OECD has proposed different methods for determining the income attributable to the significant economic presence:

1. Based on fractional apportionment: according to which profits earned in the digital economy and generated in a specific country are determined by applying either a %age based on a predetermined formula or on the basis of variable allocation factors determined on a case-by-case basis to the overall revenues of the non-resident enterprise<sup>12</sup>;

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<sup>10</sup> Final Report OECD (2015), *Addressing the Tax Challenges of the Digital Economy*, Action 1.

<sup>11</sup> It became evident, in fact, that the intangibles on which the digital economy relies heavily have easily allowed businesses to avoid a *taxable presence* (through the constitution of permanent establishments) in the high-tax countries where they actively operate.

<sup>12</sup> In regard to this aspect, the OECD noted that the domestic laws use profit attribution methods based on separate accounts of the permanent establishment, rather than fractional apportionment; that such methods would deviate from current international standards; that pursuing such an

2. Modified deemed profit method: according to which large international multi-business groups could compute income from online transactions on a presumptive basis, based on the amount of profits generated in other sectors by the same foreign company with a significant economic presence in another country.<sup>13</sup>

## 4.2 The European Approach

The European Commission considers the current tax framework not aligned with the evolution of the economic context, for the regulations in force are tailored to a traditional concept of the economy rather than to activities that are increasingly based on intangibles and data. Having perceived the reduced tax burden on digital businesses compared to traditional enterprises, the Commission has always highlighted how the implementation of unilateral and uncoordinated measures by individual Member States risks creating new obstacles and the possibility of tax avoidance in the European Single Market.

This brings to the surface one of the original sins behind the construction of the European Community: the lack of a common tax policy or a process of harmonisation between different national tax policies. With the aim of defining an appropriate taxation system that does not jeopardise the principles of tax fairness and the sustainability of the EU's economic and social model, at the informal meeting of EU Ministers for Economic and Financial Affairs (Ecofin) held in Tallinn (EST) in September 2017, Germany, France, Italy and Spain signed a joint proposal,<sup>14</sup> in the form of a political declaration, regarding the need for launching a legislative initiative for the taxation of the web economy aiming to define an adequate tax system that did not jeopardise the principles of fiscal fairness and sustainability of the EU economic and social model. The four countries proposed to introduce the so-called “*equalisation tax*” on turnover generated in Europe by digital companies, in line with the proposals for the

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approach in the case of application of the new nexus would produce very different tax results depending on whether business was carried out through a “traditional” permanent establishment, a separate subsidiary or the new nexus; that given those limits, fractional apportionment methods were not pursued further.

<sup>13</sup> According to the OECD, one possible approach would be to classify taxpayers by sector and apply a sector-specific profit %age, while a more refined approach would require dividing taxpayers within a given sector into additional classes based on relevant factors (e.g. capital assets, turnover, employees), with a specific profit %age within each band. However, the OECD itself points out that for large multinational groups with complex structures operating in many lines of business, the application of multiple sector-specific expected profit margins presents several practical critical issues; moreover, many digital business models have a different cost structure than traditional business models and finally, the application of assumed profit methods in this context can be seen as a substantial departure from current international standards.

<sup>14</sup> Fisco, L'Italia aderisce alla proposta per una Web Tax dell'Unione Europea, La Repubblica, 9 September 2017 [www.repubblica.it/economia/2017/09/09/news/fisco\\_1\\_italia\\_aderisce\\_alla\\_proposta\\_per\\_una\\_web\\_tax\\_dell\\_unione\\_europea-175007127/](http://www.repubblica.it/economia/2017/09/09/news/fisco_1_italia_aderisce_alla_proposta_per_una_web_tax_dell_unione_europea-175007127/).

introduction of the Common Consolidated Corporate Tax Base (CCCTB)<sup>15</sup> and the Common Corporate Tax Base (CCTB).<sup>16</sup>

In short, the CCCTB proposal consists of:

- a. an equalisation tax on turnover of digitalised companies: a tax on all untaxed or insufficiently taxed income generated from internet-based business activities;
- b. a withholding tax on digital transactions: a gross-basis withholding tax on certain payments made to non-resident providers of goods and services ordered online;
- c. a levy on revenues generated from the provision of digital services or advertising activities: a separate levy could be applied to all transactions concluded remotely with in-country customers where a non-resident entity has a significant economic presence.

However, in order to be even more effective, this proposal should have had an ultra-European dimension. The point is that at the G20 meeting held in March 2018 in Buenos Aires, the proposal did not reach consensus. As a result, this issue continued to be dealt with exclusively at a European level, despite the internal tensions within the Old Continent, given the tax advantages offered by some Member States, such as Ireland, the Netherlands and Luxembourg, which, as a matter of fact, implemented fiscal dumping policies.

The European approach, aimed at valuing mainly the place where users are located and not only the structures of the enterprise dedicated to the production of digital services, is quite innovative. This gives rise to entirely new issues, with major implications related to where users are located when accessing the digital interface, the territorial distribution of profit according to the number of users and how they access the digital interface.

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<sup>15</sup> The first proposal for a “Common Consolidated Corporate Tax Base” dates back to 16 March 2011, when the European Commission put forward a proposal for a directive on the subject (COM (2011) 121), in order to allow companies to treat the European market as one, facilitating cross-border activities and promoting trade and investment. With the Communication COM (2016) 683 of 25 October 2016, this proposal was renewed, flanking it with the hypothesis of a “common corporate tax base”, taking into account the inadequacy of the original draft in view of the accentuated market evolution and globalisation. The “CCCTB” is a single set of rules for calculating the taxable profits of companies in the EU, whereby transnational companies would only have to comply with a single EU system for calculating taxable income, rather than different national regulations. Companies will be able to file a tax return for all their EU activities and offset losses in one Member State against profits in another. Consolidated taxable profits will be able to be divided among the Member States in which the group is active, using an apportionment formula. Each Member State will then impose its share of the profits at its national tax rate.

<sup>16</sup> The 2016 “CCTB” proposal provides for the determination of a single set of rules for the calculation of the corporate tax base. As a result, cross-border companies operating in the EU would no longer have to deal with the different sets of national rules for calculating their taxable profits. The idea is that the project, which also includes a set of measures against tax avoidance, represents a step towards restoring the link between taxation and where profits are generated, via an allocation formula to be introduced through the new “CCCTB” proposal. It should be noted that the proposal only concerns the corporate tax base and it is not intended to harmonise national corporate tax rates. Member States would retain their right to set their own tax rates.

Unlike at the Buenos Aires G20 meeting in 2018, where no agreement was reached on the digital tax, minimum corporate and platform taxation became one of the two work streams agreed by members (OECD) and the *G20 Inclusive Framework*, a working group of 141 countries that worked on a global consensus-based solution to reform the international corporate tax framework. This working group led to a global agreement among 137 jurisdictions in October 2021. The discussions focused on two major themes: Pillar 1, the partial reallocation of taxing rights and Pillar 2, the minimum level of taxation of profits of multinational enterprises.

On 22 December 2021, the European Commission proposed a directive to ensure a minimum effective tax rate for the global activities of large multinational groups. The proposal delivers on the EU's commitment to move very quickly and be among the first to implement the recent landmark global tax reform agreement, which aims to bring fairness, transparency and stability to the international corporate tax framework.

The proposal closely follows the international agreement, which was signed at the G20 meeting in Rome on 30–31 October 2021, and sets out how the principles of the 15% effective rate—agreed by 137 countries—will be applied in practice within the EU. It includes a set of common rules on how to calculate this effective rate, so that it is applied correctly and consistently across the EU.

As promised, the European Commission is now implementing Pillar 2 of the Global Agreement, making global minimum effective corporate taxation a reality for large group companies located in the EU.

The proposed rules will apply to any large group, both domestic and international, including the financial sector, with combined financial revenues in excess of 750 million euros per year, and with a parent company or subsidiary located in an EU Member State.

In line with the *OECD/G20 Inclusive Framework Agreement*, governmental entities, international or non-profit organisations, pension funds or investment funds that are parent entities of a multinational group will not fall under the scope of the OECD Pillar 2 Directive. This is because such entities are usually exempted from domestic corporate income tax in order to preserve a specific policy outcome. This may be because the entity is performing governmental/quasi-governmental functions, or to ensure that funds or pensions do not risk double taxation.

The effective tax rate is determined for each jurisdiction by dividing the taxes paid by entities in the jurisdiction by their income. If the effective tax rate for entities in a particular jurisdiction is lower than the 15% minimum, then Pillar 2 rules are triggered and the group must pay an additional tax to bring its rate up to 15%. This additional tax is known as the “Income Inclusion Rule”. This surcharge applies regardless of whether the subsidiary is located in a country that has joined the OECD/G20 international agreement or not.

### 4.3 Tax Avoidance by Corporate Platforms

According to the 2021 report *Top 200, The growth of the power of multinationals* drawn up by the Centro Nuovo Modello di Sviluppo (CNMS),<sup>17</sup> there are 320,000 multinational companies employing 130 million people, or 4% of the world's workforce. Their turnover is 132 trillion dollars, with net profits of 7.2 trillion dollars. The top 200 multinational companies account for 14% of this turnover.

According to the report, there are about 41,000 companies listed on the stock exchange, with a total capital of 84 trillion dollars, equivalent to the GDP of the entire planet. Approximately 40% of the profits of multinationals go through tax avoidance: according to the OECD itself, this amounts to almost 800 billion dollars, causing a tax loss of 240 billion dollars to States.

While, on the one hand, the objective of a minimum tax on the profits of multinationals and platforms may be shareable in principle, at least at the G7 level, on the other hand, its implementation does not correspond to an increase in the overall taxation of multinationals.

However, it should be noted that the 15% rate is only slightly higher than the rate currently paid by multinationals in low-tax countries such as Ireland (12.5%), but obviously much lower than the rate paid by multinationals in all other countries (with an average tax rate of 26%). This translates into a sort of generalised tax discount and makes it all the more urgent and necessary to launch a roadmap at the European level for the construction of a common fiscal policy.

While the debate rages on, while mediations and possible solutions are sought, while discussions continue in the OECD to find an international agreement on a single web tax for large technology groups, Amazon, with a market capitalisation of over USD 1.5 trillion, has paid only USD 169 million in taxes in the USA in 2019. In Europe, the situation does not seem to be any better. In the UK, Amazon paid USD 8 million (6,3 million pounds) in taxes on a turnover of more than USD 17.5 billion (Bergin, 2020). In France, in 2018, it paid 250 million euros in taxes (total of all employee charges), while turnover increased to 4.5 billion<sup>18</sup> euros. In Spain, Amazon paid around 4.4 million euros in taxes in 2018 against total declared revenues of 490 million euros (Fernandez, 2019). In Italy, Amazon's companies paid only 11 million euros to the Italian tax authorities, against a turnover of USD 4.5 billion (Pitozzi, 2020) and in 2019, Google, Amazon, Facebook, Apple, Airbnb, Uber and Booking paid a total of 42 million euros to the Italian tax agency (Livini, 2020).

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<sup>17</sup> <http://www.cnms.it/attachments/article/200/top200-2021.pdf>.

<sup>18</sup> Le Monde, *Amazon annonce avoir payé 250 millions d'euros de prélèvements obligatoires en France en 2018*, [Amazon announces that it paid 250 million euros in compulsory levies in France in 2018], 18 December 2019, [https://www.lemonde.fr/economie/article/2019/12/18/amazon-annonce-avoir-payé-250-millions-d-euros-d-impôts-en-france-en-2018\\_6023385\\_3234.html](https://www.lemonde.fr/economie/article/2019/12/18/amazon-annonce-avoir-payé-250-millions-d-euros-d-impôts-en-france-en-2018_6023385_3234.html).



But even more impressive is that the TV streaming platform Netflix paid only 6,000 euros to the Italian Revenue Agency.<sup>19</sup>

Just to give an idea of the turnover we are talking about, and therefore of the need to find innovative forms of taxation to regulate this market, here are a few figures<sup>20</sup> which analyse the balance sheets of the 25 web giants over the five-year period 2015–2019 and the impact of COVID-19 on the results for the first half of 2020.

Among the analysed companies, 13 operate mainly in internet retailing (e-commerce, entertainment services, online travel and sharing mobility), 7 in software production and 5 in internet services (social media, search engine, web portal); 14 of them are based in the USA, 6 in China, 3 in Japan and 2 in Europe (Germany). The market is increasingly concentrated: the top three players, Amazon, Alphabet and Microsoft account for about half of aggregate revenues. In 2019, the aggregate turnover of the 25 web giants reached 1,014 billion euros, or 8% of total turnover of global industrial multinationals, experiencing revenue growth over ten times higher than large manufacturing (+118.3% in the five-year period 2015–19 compared to +10% for multinational manufacturing companies). Profits also grew to 146 billion euros (15.6% of the world's industrial multinationals), increasing at an average annual rate of +24.1% (large manufacturing is stuck at +0.6%) and totaling 480 billion euros in cumulative profits in 2015–2019. The crisis caused by COVID-19 saw an increase in revenues from e-commerce (+31.3% in the first six months of 2020 compared to the same period in 2019), fintech (+26.1%), subscriptions (+24.6%) and cloud service offerings (+22.2%).

## 5 Conclusions

As we have seen, enormous transformations are sweeping through the world of work, the forms of production, the organisation of work itself, the capacity to generate profit and the rules and regulations to meet these enormous transformations. Constructing a new welfare and claiming new rights, in the platform economy, is not only a question of social justice, but also of how to imagine a new taxation capable of supporting a new welfare model. Where to tax and what to tax are the first two fundamental points of the debate, and they are by no means simple to answer. As we have said, the global nature of digital platforms, their ability to act, in essence, as intermediaries between supply and demand, as well as the collection, management and sale of huge amounts of data or the taxation of digital transactions alone do not make it easy to identify a technical

<sup>19</sup> Il Fatto Quotidiano, Le tasse pagate in Italia dai giganti web: Amazon 11 milioni di euro, Google 5,7 milioni, Facebook 2,3 milioni, Netflix 6 mila euro, 14 October 2020. [https://www.ilfattoquotidiano.it/2020/10/14/le-tasse-pagate-in-italia-dai-giganti-web-amazon-11-milioni-di-euro-google-57-milioni-facebook-23-mln-netflix-6-mila-euro/5965917/?fbclid=IwAR0-G7ZoD7L0UNSk3EPHQjxcaw9HUFoLXmMQTRoMLK3ZDJ9wHgW7XLO\\_C9I](https://www.ilfattoquotidiano.it/2020/10/14/le-tasse-pagate-in-italia-dai-giganti-web-amazon-11-milioni-di-euro-google-57-milioni-facebook-23-mln-netflix-6-mila-euro/5965917/?fbclid=IwAR0-G7ZoD7L0UNSk3EPHQjxcaw9HUFoLXmMQTRoMLK3ZDJ9wHgW7XLO_C9I).

<sup>20</sup> Prima Online, Il Covid non ferma i giganti Web: +17% nel fatturato nel primo semestre 2020. Mediobanca: in 5 anni aumentati utili, valore e forza lavoro, 14 October 2020, <https://www.primaonline.it/2020/10/14/313892/dati-rs-mediobanca-su-softweb/>.

solution. Just as finding innovative forms of social protection poses questions of equal complexity. Should new forms of social protection affect only platform workers? Should a right to basic income for all be introduced encompassing also consumers of technology and thus producers of data? What role does the State play in this regard? Should local measures be implemented only where platforms operate (cities for instance) or continental interventions should be needed? Surely what is needed is to move towards a distribution of the wealth produced and thus identify increasingly broad and universal measures of social protection. This could be done by launching basic income experiments, implementing effective interventions at the local level, identifying good innovative practices or strengthening existing measures and rights. Basically, it is a matter of imposing new fiscal policies, and thus putting policy choices back at the centre of the decision-making process.

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# Latent Conflict, Invisible Organisation: Everyday Struggles in Platform Labour



Moritz Altenried and Valentin Niebler

## 1 Introduction and Context

Platform labour is now a global phenomenon. Millions of people work in urban centres on digital platforms such as Uber, Deliveroo, or Helpling. “Everybody is talking about the gig economy” write the British researchers Jamie Woodcock and Mark Graham in their critical introduction to the topic (Woodcock & Graham, 2019, p. 1). In many countries, the “gig economy” has already arrived as a term in colloquial language. In the UK, for example, where, as Woodcock and Graham point out, the number of platform workers is now equal to that in the public health sector, broad public discussions about the phenomenon and its impact on the world of work have been developing for several years. Central to this attention paid to the gig economy, here and elsewhere, is a wave of protests by platform workers (Animento et al., 2017; Joyce et al., 2020; Woodcock, 2021). It is also these numerous and intense strikes and conflicts that have been waged in Europe and globally by platform workers, which steered a great deal of political attention towards the working conditions on digital platforms. Accordingly, the gig economy has become the object of recent new legislative initiatives and attempts at regulation. The conflicts and debates about the future of digitally organised and radically flexible work are thus entering a new phase. The relevance of these political and social debates, it has to be added, extends far beyond the field of digital platforms. In addition to the (often rather small to medium but sometimes sharply increasing, see, e.g. Huws et al., 2019) share of national labour markets, the relevance of the gig economy and its labour conflicts results from the importance of platforms as field of experimentation for digitally mediated, organised and controlled labour. Platform labour serves as a kind of laboratory in which new

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techniques and technologies of organisation and exploitation of living labour are experimented with and workers react with new strategies of resistance.

In contrast to the already comprehensive investigations of control practices on platforms, their outsourcing of risk to workers and the visible and public struggles against these practices, this article considers the phenomenon of platform labour with a view to the more invisible and everyday practices of subversion and resistance (both individual and collective). We describe these practices based on our empirical research on platform labour in Berlin and Europe. The article is based on 43 qualitative interviews with workers from three platforms in Berlin (Uber, Deliveroo, Helping), extensive ethnographic research and numerous background interviews.<sup>1</sup> Our attention is not primarily focused on the visible strikes and protests, but above all on the everyday tricks, conflicts and disputes between workers and capital, which take on a special meaning in the context of the labour relations of the gig economy.

Such more or less intense everyday conflicts and struggles and forms of informal resistance are as old as capitalism itself and their dynamic is a driving force of capitalist development. The rise of digital platforms is hence to be understood in the context of a new cycle of such struggles in the age of digital capitalism. In what follows, we attempt to show how these struggles are transformed by the distinctive labour model of digital platforms which we describe as the combination of algorithmic management and hyper-flexible contractual relationships. We analyse the logic of digital control and fragmentation that digital platforms develop and, using various examples from different platforms, move on to show how workers counter these logics with creative individual as well as collective strategies. The field of platform labour offers a fascinating example of how the management strategies and technologies of the platforms and the everyday and collective strategies of resistance of the workers are mutually evolving at an impressive pace. This is one reason why platform labour is currently a central laboratory and site of struggle over the future of work in digital capitalism.

## 2 Platform Economy and Platform Labour

The term platform economy describes a system of often global companies and groups of companies that have spread over the past decades in various areas of the global political economy and division of labour. Promoted great amounts of available venture capital after the dot-com crisis of 2000 and the financial crisis of 2008, some of these companies have become the most valuable companies in the world in just a few years (Srnicek, 2017; Staab, 2019). In addition to the rise of Google, Amazon,

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<sup>1</sup> Besides the project »Platform Labour in Urban Spaces« (PLUS – grant agreement No 822638), our empirical research and material is based on a second project called “Digitalisation of Labour and Migration (funded by the Deutsche Forschungsgemeinschaft, DFG - Fördernummer 398798988). An earlier variant of this article has been published in German in the anthology “Widerstand im Arbeitsprozess. Eine arbeitssoziologische Einführung” edited by Heiner Heiland and Simon Schupp (Transcript, 2022).

Facebook and Apple, so-called lean platforms such as Uber, Airbnb or Deliveroo are emerging, which are transforming established markets as brokers of services and with lean outsourcing models.

Very different forms of employment can be found in platform companies. When we talk about platform labour here, this does not encompass all employees in platform companies, but rather a specific employment model that is often referred to as the gig economy (Crouch, 2019; Schor, 2020; Woodcock & Graham, 2019). The gig economy translates the logic of the platform into a model of *labour on demand*, which is now penetrating more and more areas of the social division of labour. Gig work platforms exist as both location-independent and location-bound business models. While location-independent platform labour, so-called cloud- or crowdwork on platforms such as Amazon Mechanical Turk, Clickworker or Appen, is distributed globally and practised in a new form of digital home-based work around the world (Altenried, 2020), location-based work—which is the focus of this article—is found on local markets and thus primarily in urban areas.

We argue for the interaction between algorithmic management (i.e. forms of digital, at least partially automated, organisation, management and control of labour) on the one hand and hyper-flexible contractual relationships on the other as the genuine characteristic of platform labour. It is precisely this combination of new forms of algorithmic management and digital control on the one hand, and the (sometimes very old) forms of contractual flexibility and contingency on the other hand, that makes platform work attractive and efficient for companies (Altenried, 2020; Altenried et al., 2020).

Labour on gig platforms is essentially characterised by a bundle of technologies largely automating organisational, coordinational and control aspects of the labour process often described by the umbrella term algorithmic management. The partial or complete automation of management directions and decisions takes place through tracking, rating as well as active and passive governance through app and website interfaces (Beverungen, 2018; Lee et al., 2015; Moore, 2017; Staab, 2019). Instead of receiving instructions from supervisors or middle management, workers receive their orders and instructions via the smartphone application, on which navigation routes, customer information or ratings are displayed. Algorithmic management guides the labour process both through incentive systems and rewards (access to better orders, satisfying graphics, etc.) and through sanctions and lockouts from the app.

A major impact of algorithmic management techniques is the high degree of opacity, which is discussed in research as “information asymmetry” (Shapiro, 2018). The lack of clarity about the system of awarding jobs or the practice of ratings puts pressure on workers, as this statement by an Uber driver in Berlin illustrates:

“You haven’t received any orders and you call your colleague and he says: ‘Yes, things are going well for me.’ Then you have these devilish thoughtsomething is wrong. >Ah, maybe because I have bad ratings now, ah, maybe because I took more breaks today than yesterday.” It’s very stressful psychologically (Interview April 2020, our translation).

As the statement makes clear, the opacity of these systems of algorithmic management is sometimes as central to workers as the level of actual control they allow.

Even if these systems of algorithmic management never function perfectly, they aim at the automated organisation of labour in almost all its aspects (from shift planning over the labour process to payroll). In the case of platforms, digital technology allows the precise organisation, control and measurement of the labour of, for example, bicycle couriers or taxi drivers distributed throughout the city in a way that was previously only conceivable in the enclosed disciplinary architecture of the factory—and is now possible remotely and to a large extent automatically (Altenried, 2022).

However, these new forms of digitally organised and increasingly automatically controlled labour only represent one central aspect of platform labour. Only in combination with the flexibilisation and precarisation of work, the second important characteristic of the gig economy, does it develop its efficiency and profitability for the platforms. The second essential component of platform work is therefore hyper-flexible contractual relationships. Platforms such as Deliveroo or Helpling rely on formally self-employed independent contractors to reduce fixed costs (for labour and means of production) as close to zero as possible. As already described, the drivers of Deliveroo, for example, have to bear the investment for their bicycles and smartphones themselves and, in the event of a slump in demand or illness, almost the entire risk. As this model of self-employed independent contractors comes under increasing regulatory pressure, platforms have started to experiment with new employment models such as subcontracting (exemplified for example by Uber in Berlin) looking for new ways to outsource social and entrepreneurial risks.

The use of self-employed workers who work with their own bicycles or cars and are paid per order also leads to the digital renaissance of a form of wage that is actually considered largely historical: piece wages. Marginalised in the history of capitalism, if never extinct, piece wages are a central tool for today's gig economy. They are a means of monitoring performance and disciplining workers. As income depends on the effort and speed put in, a bicycle courier, for example, who is paid per order can confirm this: the faster she drives, the more orders she manages and her hourly wage increases accordingly. "The exploitation of the worker by capital is realised here by means of the exploitation of the worker by the worker", as Marx described this function of piecework (Marx, 1962, p. 577, our translation). Piece rates on digital platforms tend to be flexible and change frequently, often being adjusted in real time based on demand and available workers.

With the help of self-employment and piece wages, it is also possible for the platforms to only pay the workers when there is work to do—and thus to pass on entrepreneurial risks to them. This means that workers do not cause any costs for the company between orders or during waiting times. At the same time, the costs for shift planning and commutes are transferred to the workers. The competition and an often strongly fluctuating order situation are a global problem in the platform economy. Since the self-employed workers who work with their own computers, cars or bicycles hardly cause any fixed costs, there is little incentive for the platforms to



limit the number of registered workers. On the contrary, a high number of workers allows platforms like Uber and Deliveroo to offer fast service throughout the city, while for the workers this usually means more competition, lower wages and thus longer working hours.

It is the combination of algorithmic management and flexible contractual relationships and wages that represent the central characteristic of platform labour. In platforms like Deliveroo or Uber we see a new configuration of work: automatically organised and strictly controlled and at the same time highly flexible, scalable and contingent. Platform work illustrates in a concentrated form a “multiplication of labour” as described by Mezzadra and Neilson (2013): a spatio-temporal intensification of work processes through tight control and flexible access, a diversification of workers that includes numerous demographic groups and living conditions and a heterogenisation of contractual relationships that workers often integrate into the production process in a mixture of solo self-employment, fixed-term contracts and various part-time jobs. This is also the reason why in many cities the majority of workers on platforms such as Uber or Deliveroo are migrants: the characteristic combination of algorithmic management and flexible contracts makes these platforms suited almost perfectly towards the exploitation of migrant labour (Altenried, 2021; Altenried et al., 2021; Schaupp, 2021).

If we think about the multiplication of labour as a nexus of digital technology, flexible contracts and the mobility of labour itself, we can see how these are important developments beyond the world of the gig economy. We can think of other examples such as an Amazon distribution centre, where a highly standardised, digitally organised work process allows for the flexible inclusion of short-term and seasonal workers to scale the workforce according to fluctuating demand, for example around the Christmas period. Throughout the world of work in digital capitalism there are many examples where the new ways of organising, controlling and measuring work digitally are giving rise to new configurations and geographies of work and mobility. In this sense, it can be argued that digital platforms are the paradigmatic “digital factories” of the present in which transformation tendencies that are currently changing the world of work are observable in an exemplary manner (Altenried, 2022).

### **3 Everyday Resistance: Micro-conflicts on Platforms**

The digital technologies and strategies described above are aimed directly at reducing the power resources and leverage of platform workers and at making the process of exploiting human labour as efficient and smooth as possible. They build on long-term tendencies of flexibilisation and precarisation, which developed in the last neoliberal decades not least as a reaction to the operational and social power of organised work, as well as on much older histories and technologies for the control and organisation of contingent work (one may think of industrial homework organised by piece wages or the history and present of migrant day labourers).

A central aspect of this decades-long counter-offensive by capital is fragmentation, which also plays an important role in platform labour. Platform labour causes fragmentation on multiple levels: At the spatial level, by eliminating physical operations and dispersing the workforce in a city or region; on an organisational level through the worker's lack of membership as employees of the platform companies (and protection through this) as well as technologically through the isolation of workers in a labour process reduced to the app, whose interface and design complicates collective processes. These fragmenting effects of platform labour have led to analyses that emphasise the incisive and fragmenting effects of management and monitoring techniques (Zuboff, 2019). With a view to fragmentation and to the thesis of "deskilling" in the labour process (Braverman, 1998), which has long been discussed in the Labour Process Debate, there is often little scope for resistant, stubborn or collectively dissident behaviour in the analysis of platform labour (Gandini, 2018; Srnicek, 2017). These diagnoses are somewhat at odds with the cycle of strikes and protests by platform workers in recent years: a global wave of protests has developed since 2016, which today poses a serious threat to the business model of so-called gig economy platforms such as Deliveroo, Helpling or Uber. These protests have a focus on food delivery platforms but go beyond them. The dynamics of these protests and mobilisations are now very visible and widely discussed (see e.g. Cant, 2019; Tassinari & Maccarrone, 2020; Woodcock, 2021).

This is why we would like to start with our analysis of the everyday platform work. With the rise of digital platforms, conflicts between capital and labour are transforming, but by no means ending. On the contrary: We understand everyday labour on gig platforms as a constant and generalised field of conflict between platforms and workers. In our analysis of these conflicts, we focus on the everyday and less visible micro-conflicts in platform labour. Our contribution takes note of the often-described control and fragmentation dynamics in the work processes of the platforms, but at the same time argues that the combination of algorithmic management and hyper-flexible contractual forms, firstly, rarely translates into the work process as planned, and, secondly, also creates new gaps, niches and conflicts.

While algorithmic, app-based management aims at the precise organisation and monitoring of work, this form of management always has gaps that are specifically sought out by workers and used creatively. The legal constellation of self-employment also repeatedly leads to gaps in the strategies of control and exploitation by platforms, which are used by the workers. Hence, it is the two central elements of platform work outlined above around which everyday conflicts and disputes are structured. The everyday conflicts in platform labour organised by algorithmic management and piecework are also to be understood as a direct, permanent and generalised form of the struggle between workers and capital over the added value produced (a struggle, which in its latency and fragmentation then also differs clearly from the forms that it takes in a factory with employment and hourly wages).

In the following, we will present some examples from the diverse arrangements of small-scale conflicts and strategies of platform workers. In doing so, we start with more individual practices and then show how these can aggregate into collective practices and come together with other collective forms of everyday resistance. At the

same time, the various practices and tricks that allow using the platform's algorithms to one's own advantage are part of the everyday exchange and mutual support among workers. They are furthermore subject to constant change, as platforms always try to close the corresponding gaps, whereupon workers react with new strategies. The level of visible and institutionalised disputes (e.g. strikes and court cases about bogus self-employment) also often builds on the more everyday resistance practices and invisible organisational processes, but we tend to leave them aside in this article because, as mentioned, this level is already widely discussed academically and politically.

### ***3.1 Uber: How to Hack Bonus Programmes, Circumvent Regulation and Test Algorithms***

The taxi platform Uber is active in Berlin with a fleet of around 7,000 drivers. By ordering with the app, customers book trips through the city, the route and price of which are fixed and given to the drivers. During their work, information is collected from drivers (speed, GPS location, number of trips and cancellations) and also fed in by customers in the form of ratings. Although the Uber drivers in Berlin are employed by sub-companies (so-called fleet partners) due to the regulation of the German taxi market, they almost always earn their wages on a commission basis. The systematic oversaturation of the market by Uber and the resulting low average earnings mean that drivers are dependent on exploiting gaps and incentive structures through various tricks.<sup>2</sup>

In the case of Uber in Berlin, common micro-conflicts can be observed that also exist in similar ways in other cities and countries. The first case concerns the exploitation of the company's bonus programmes. In order to get lucrative orders, drivers try to influence the length of their journeys in order to maximise their earnings and commission from Uber. Depending on the amount of the commission, long or short journeys are specifically "searched for" (bypassing the legal obligation to return to the company's headquarters<sup>3</sup>):

Uber tells me to make 50 trips this week and then they will only take 10 percent commission. [...] What do we do? [...] We're shooting around this corner. Or at the East Side Gallery. We know exactly, the customer at the East Side Gallery gets on and drives to the Adlon Hotel. Or from Alex to Adlon, Adlon to Alex. [...] Short trips. Very quickly we make 50 trips. [...] Then we drive to the airport, then we hide where real fares come in. And I mean, I'm open

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<sup>2</sup> Like most labour platforms, Uber strives to maximise the number of workers available through the app, often well in excess of demand levels. Due to the employment relationships already described (self-employment or employment on a commission basis), the risks of low demand are borne by the workers, specifically due to longer waiting times and a lower average wage as a result.

<sup>3</sup> The obligation to return (Rückkehrpflicht) determines a requirement in Germany under the Passenger Transportation Act (Personenbeförderungsgesetz—PBfG), which requires rental companies' cars to return to their company headquarters before accepting a new order. This requirement represents a practical business obstacle for Uber and its subcontractors.

and honest, you can't do it any other way, otherwise you don't earn anything (Interview May 2020, our translation).

Another trick is to cancel orders while avoiding sanctions. A driver reports how he "cancelled" orders by cutting off the internet connection without being sanctioned for it. This allows him to benefit from an hourly wage bonus programme on certain days without driving assignments:

Uber said, for example, if you drive on Wednesday, we'll give you 20 or 21 euros per hour [but] you have to accept all the rides we send you. You are not allowed to cancel. [...] The customer books, suddenly Uber starts ringing. What am I doing? [...] I went downstairs, turned off my internet. [...]. And suddenly the system writes, we're sorry, something went wrong. That means it's their fault, not my fault (Interview May 2020, our translation).

This trick makes it possible to avoid further work without additional payment. These tricks and strategic attempts to circumvent the rules of the platform in order to achieve higher income take advantage of control gaps in algorithmic management and show the conflict that is permanently present on the platforms due to the principle of flexible piece wages about the appropriation of the (added) value produced between workers and capital.

In the case of Uber in Berlin, more ambivalent forms of rule violations by drivers can also be observed. As described above, drivers in Berlin often deliberately circumvent the statutory obligation to return to the bases of their companies (the subcontracting fleet partners), which is enforced in the Uber app through the app's interface. Many drivers describe that they can avoid the obligation to return by taking targeted breaks, switching the app on and off, changing the direction of travel and waiting for new orders. Here it can be assumed that Uber knowingly tolerates this behaviour because both the drivers and Uber draw a disadvantage from the regulation. In any case, the trick is an important way for the drivers to keep their activity profitable and for their everyday practice, it makes little difference whether they work against the rules of the platform or legal regulations.

As in other platforms, the work of the Uber drivers tends to be isolated, but different forms of exchange and organisation among one another can be observed. Although drivers have often never seen each other, there are smaller and larger messenger groups (WhatsApp, Telegram) on which exchanges take place. A driver reports:

We are organised in a group. [...]. We know where the police check is, we know where there are parking tickets, we know where they have speed controls, where they want to stop us [...]. And that will be passed on very quickly (Interview May 2020, our translation).

When asked how well the workers know each other personally and whether this makes a difference for the exchange, the driver replies:

We never met. We're all in the same boat. When you're on the Titanic, you want to save those around you too. Because you know [...] if you don't save him, he'll push you into the water (Interview May 2020, our translation).

In Berlin, this exchange in larger groups is usually limited to traffic information, police checks and safety instructions. Political issues and working conditions are

also discussed in smaller groups. This often-everyday exchange makes it possible for drivers to stay in touch despite the spatial diffusion. This has also led to organisational efforts and collective actions, which have so far failed due to the small-scale and heterogeneous sub-contractor structures in Berlin which makes a direct confrontation with Uber more difficult.

## 4 Experiments with the Algorithm

Collective ability to act is not only expressed through digital communication or everyday conversations between workers, but also through joint action. A major concern for workers is to get to know and understand the coordination and distribution logic of the platform better in order to reduce information asymmetries. A driver in Berlin reports of a joint experiment with other drivers:

We wanted to know how it works. We were five people. We always have two cell phones; we have a customer cell phone and an Uber cell phone. We were four cars, we lined up next to each other at exactly the same height. We booked Ubers next to each other for the same amount. [...] One distance was five kilometres. The other distance was 30 kms. Because of course that's really far in a city like this. We all practically turned on and booked the Uber app at the same time. And what do you think happened? [...] By chance, the [algorithm] kicked out a [journey] for everyone. The one with the lowest rating got the best ride. That's just psychological manipulation (Interview May 2020, our translation).

The “experiment” leads the drivers to the realisation that the rating is not or not significantly decisive for the distribution of journeys. A hint that is helpful to classify assumptions and expectations towards the platform. Such experiments and joint attempts to see through the logic of algorithmic management and to use it to one's own advantage are among the most important forms of everyday exchange and resistance between platform workers.

### 4.1 *Helping: How to “Perform” Work and Forge Coalitions with Customers*

Helping is a platform company that mediates around 10,000 cleaning workers in private households in several European countries and worldwide. The mostly self-employed workers have to give around 30 per cent of their income to the platform as a commission fee. The company has its largest market in Germany. Due to the nature of the activity (cleaning in different places, mostly private households), the labour process on Helping cannot be algorithmically controlled as precisely as on Uber or Deliveroo, for example. To substitute for this, the platform relies on the co-management of the customers, who, with their ratings of the cleaning workers, have a significant say in their “market value” on the platform.

Helping workers usually work alone, but often maintain close contact with their customers, with whom they usually work regularly. This relationship gives rise to both micro-conflicts with the platform and ways to overcome them. Orders on Helping are assigned on a fixed-rate basis and by the hour. Because the cleaning activities are usually determined individually by the customer, there is scope for reducing the workload. A cleaner describes the process as follows:

If you feel that you have been given too much time you have this motivation to clean a little bit slower or to find some details which are not important, but still to look as if you're doing something, so that you can then tell them at the end of it: "Okay, so this was the amount of hours". [...] when the cleaning ends you receive a message which says: "Did you clean here?" It's always the same, it's an automated message. And then you say "Yes" and "No".. [...] And if it's less work than you try to stretch the cleaning so you can just don't have to have the conversation and don't have to receive less money because you needed only one and half hours. [...] Every time I'm there I'm always calculating how much I need for every task (Interview April 2020).

Because usually neither the customer nor the platform can measure how long the task takes, Helping workers can set the pace if the task leaves room for this. The algorithmic management is patchy here and relies on the written reviews of the customers, so that "deliberate underperformance" (Taylor, 2007) is possible.

Because the relationship with customers is central, many cleaners state that the main task of the job is to work on their relationships with clients. If this is ensured, the rating will also be good.

So that's the tricky thing how the rating system works, because it doesn't really work. [...] You are not only selling the cleaning, you are selling them the phantasy that you are sympathy and you like them. That's a service that you do of cause! If you want to have a good rating you have to sell the phantasy to the people that they are really nice and you love [...] being here and cleaning for you just because I'm from Latin America. I love it! (Interview, May 2020).

Although this hints at the additional requirement of emotional labour (Hochschild, 2012), it also makes leeway visible. The influence of the platform company can be reduced through a demonstrative display of activities and a good relationship with customers (who of course occupy a position of power).

The following shows how far this potential can go. Another element of overturning the labour control on Helping and even excluding the platform completely is the building of (informal) coalitions between workers and customers. Since workers and customers meet every two weeks in many cases, it is common to continue the business relationship without the platform and to waive agency fees. This is how a worker reports on an offer from her customer:

This particular couple that I work for today they were like: we don't trust Helping, we want to take you out of it. And that's what they said to me repeatedly. Like I have, the other two that I have also said that to me that: we don't like Helping, we want to hire you directly (Interview, February 2020).

The absence of personalised control and organisation by the platform, enabled by algorithmic management, visibly reduces the opportunity cost of circumventing the

platform. Coalitions between customers and workers can arise above all when the personal relationship (as described above) has generated trust. They do not always come about at the request of customers, but are actively brought into play by workers, despite the risk of termination. Another worker talks about the risk and fear associated with making his customers aware of the possibility:

When I asked one [...] if you want, we can do it outside, it's more for me and less for you. And he said, well I think about it. And I was so scared that I went to my husband scared and tell him, oh no maybe he tells Helping. But no, he didn't do it, he give me 15 euros for tip, because he said this is what Helping took from you (Interview, February 2020).

Although independent service providers are legally free to work with customers outside of the platform, the practice of moving customers off the platform is sanctioned harshly by Helping. Customers or workers in Berlin have to pay up to 500 euros if such a case is noticed. The high fee and its threat are the company's response to this widespread practice, which the company has recognised as a business risk. However, this gap can hardly be closed by algorithmic control.

## 5 Collective “Blacklisting”: Digital Exchange and Organising

The somewhat reduced possibilities of digital control (compared to other platforms) are therefore used by workers (sometimes in alliances with customers). On the other hand, Helping, as mentioned above, compensates for the lack of digital control through the co-management of customers, whose ratings play an important role for workers in accessing future orders. In many cases, customers exploit this position of power, for example to force additional services or longer working hours. In this case, the workers have to weigh up. They oscillate between risking either getting a bad review and having a conflict with the customer whom the platform normally supports. Or they decide to tacitly accept the additional or unreasonable demands of customers in order to keep their own rating and thus visibility and market value high on the platform (Bor, 2021).

To avoid this dilemma, at least with the worst customers, Helping workers try to warn each other about them. This everyday practice of mutual help also gives rise to more solid structures, often based on social media such as WhatsApp or Facebook groups. Among other things, blacklists of problematic customers are drawn up that circulate in the group:

Because in Helping when we get a booking, we don't see the name of the customer. We only see the address. So, our blacklist is addresses (Interview February 2020).

Such blacklists, maintained as collective and constantly updated online documents, allow workers to warn each other about abusive customers, for example, and not even get into the difficult situation of being alone with them in their apartments.

Such lists are a result of the constant exchange via various chats and social media in which the workers support each other in everyday conversations and with all kinds of problems (e.g. with offices, authorities or landlords). A Helpling worker reports about a Spanish-speaking chat group in which messages are exchanged:

Yeah, we are in, well, in a WhatsApp group with a lot of people of Uruguay, Chile, and Argentina, Latino people, so we have contact with all of them. [...] we have all the experience and once on the WhatsApp group you can see in the morning “I have this problem, can you help me?” and all of us try to help (Interview February 2020).

One of these chat groups is called “Helpling Union”, a fact that shows that the workers actually also see their activity in these groups as an approach to organise disputes for the improvement of their working conditions. This example, as well as numerous examples from other platforms, shows the central role of digital communication networks for the emergence of “cultures of solidarity” among platform workers and thus for mutual support as well as further forms of resistance and organisation (Fantasia, 1989; Heiland & Schaupp, 2020).

On a platform like Helpling, where workers almost never meet and there is almost no union activity, migrant networks are often a starting point for such networking and organising approaches. In Berlin, for example, workers from Latin America are represented in large numbers on the platform and play an important role in everyday networking and organising. This is also shown by the efforts of groups like “Migrant Workers Berlin” and “Oficina Precaria”, who are trying to organise gig workers in Berlin. An activist from Migrant Workers Berlin, who has experience working on Helpling, says that Facebook groups and other social media are used to build on the common language and origin in order to organise workers across sectors:

Our first step for something to be built is to start with our community. [...] we are starting with the people we know. We are Argentinians, south Latin American people have lots of experiences in our history doing this. I think like we have a cultural background of having to fight for our rights. So that is something that’s really in our culture. If you look like at feminists right now in Argentina you can see that we are fighting. [...] It is easier for us to aim at that people and when we have organised a group of people with this, well the next step: hey, how are we going to get in touch with working of all the nationalities. But we have to make like the first group (Interview May 2020).

The transitions from everyday and individual resistance practices to more collective forms and organisational approaches are also evident in these various practices around the platform Helpling. In the case of Helpling, however, the circumstances are significantly more difficult due to the fragmentation and lack of interaction in everyday life (e.g. in comparison to food delivery riders who see and meet each other in everyday work), nevertheless the workers find ways to network and at least take first steps towards improving their working conditions.



## 5.1 *Deliveroo: How to Use Gaps in Algorithmic Flexibility*

Deliveroo is a food delivery platform founded in London in 2013. Customers can use the app to order meals from restaurants in their area for delivery to their doorsteps. Around 140,000 restaurants in almost 800 cities in 12 countries in Europe, Asia and Australia are available via the app. Deliveroo arranges delivery from the restaurant to the customer through a fleet of self-employed couriers (around 110,000 worldwide) and takes a delivery fee from the customer and a share of the payment to the restaurant. The platform was active in Germany until 2019. With the withdrawal of the platform from the German market in August 2019, our research on the platform in Berlin also ended. Deliveroo has been and still is the focus of various disputes and (wildcat) strikes in various European countries. The disputes between workers and platforms also start on an everyday level.

A window of opportunity for subversive action arises again through solo self-employment (which of course contributes to the precariousness of the job on many other levels). In order to protect itself against lawsuits for bogus self-employment, Deliveroo must, among other things, offer the courier each delivery job individually and give them the opportunity to reject orders. This in turn gives them the opportunity to make selections based on various criteria (payment, distance to the restaurant and customers, delivery area, etc.) and to reject them if necessary. A former Berlin rider of the platform describes the practice:

I started learning how to use the app better because, at first, I was accepting everything. And then I would do really long rides, and that would leave me in a place where I couldn't get any more orders, and now I'm super picky. Now I can reject like four of these in a row if I don't like them, and I would only do the ones that are short and like... I know that you can do really short ones for €4.80. And then I can do four or even five in an hour (Interview August 2019).

Orders that are particularly poorly paid and unpopular “bounce” through the system because they are rejected by a large number of riders. This means that the platform cannot keep its delivery promise. In this way, the individual denial practices aggregate into a kind of collective mini-strike against a single order, thus forcing the platform to act (e.g. to increase the remuneration of the order to guarantee the delivery). This practice has an effect similar to that of Helping workers warning each other about bad customers, or activist tools like the “Turkopticon”, a browser plug-in that workers on the crowdwork platform Amazon Mechanical Turk use to warn each other of bad orders and clients and thus force them to adjust their conditions (Silberman & Irani, 2016). Such strategies are made more difficult in the event of an oversupply of registered digital click workers or bicycle couriers, who are then forced to accept all available orders. Platforms like Amazon Mechanical Turk and Deliveroo purposefully rely on such an oversupply of labour to prevent the practices of mass refusal of orders. And yet these mini-boycotts (which can certainly be read as early forms of the strike) point to gaps in the directive authority of the platforms, which arise through the construct of solo self-employment and which are used by workers.

Like other platforms, Deliveroo relies on a comprehensive system of algorithmic management, digital organisation and control of work with as little additional effort as possible for human management in the company's offices. While the forms of algorithmic management allow for a high degree of control over the spatially distributed riders, the system also has gaps, and the search for these gaps and opportunities to exploit them is a permanent concern of almost all riders and a constant topic in the exchanges between them, both on the street as well as in digital space.

In the case of Deliveroo in Berlin (and many other countries), these tricks by workers aim, among other things, at manipulating their own performance statistics. In order to allow attendance at pre-booked shifts and to prevent (spontaneous) no-shows, Deliveroo in Berlin (as in other European countries) used a ranking system that penalised not showing up for a shift through attendance statistics. These attendance statistics are an essential factor that structures access to future (lucrative) shifts. A rider who (for whatever reason) does not start a shift worsens his or her statistics and may only be able to book few or unpopular shifts in the next week because the others have already been booked by drivers with better statistics. A rider explains the problem:

Sometimes I have problems with the 11:30 shift [...] my Deutsch class ended at 11:40. It's in Warschauer Strasse. I can't go to Neukölln and lose my first hour. But I always try to take care of it, because at the end, if you have a good statistic, you have the good hours, and you don't have to be searching all the time for extra hours (Interview June 2019).

Spontaneous non-attendance to work was thus a problem that made it harder to get adequate and good shifts the next week. However, almost all Berlin riders found out relatively quickly that it is enough to simply log into the app (e.g. from the sofa at home) without intending to accept orders in order to have the shift counted as present in the statistics. This in turn allowed the freedom not to work spontaneously. However, this is only for the riders who were currently in the zone where their shift should take place (which the app controls via GPS). But even if they weren't in the zone, riders developed ways to fake their presence, as one long-term rider, who also works in a collective on the side, explains:

For example, I was doing something else for the collective, and I would be on the other side of Berlin, and it took me more time, and I cannot come back to Neukölln or to Friedrichshain on time. I would need to contact someone, either my girlfriend or a friend in the other zone that, if maybe he's there, can – if he could log me in because I cannot make it. [...] We do it with this PIN verification. So, I get the PIN. I give him the PIN, yeah. So, he just logs in, logs out within first 15 min, and that's it. So I was most of the time managing to keep myself in first group (Interview, August 2019).

Here, too, gaps arise in the system of algorithmic management, which is used by the workers. The example of Deliveroo shows once again how the characteristic combination of platform labour, algorithmic management and solo self-employment, on the one hand, allows the platforms to organise cost-effectively, control the labour process and outsource risk to the workers, but, on the other hand, this always creates new gaps to be sought and used by workers.

The platforms respond to the strategies of the workers with adjustments to the algorithms and thus repeatedly prevent strategies like the one just described (in almost all European cities Deliveroo has now adjusted the shift booking system to prevent such practices). Adapting and changing the algorithms, in turn, almost always enables new tricks and strategies for the workers to increase their income and circumvent the platform's control mechanisms. The algorithms are therefore a central component of a dynamic and everyday antagonism between platforms and workers and numerous micro-conflicts. In Deliveroo and other platforms, major changes on the part of the platforms in these algorithms repeatedly lead to micro-conflicts and strategies turning into larger and more visible conflicts such as spontaneous strikes.

There have been numerous visible protests and strikes, especially on food delivery platforms such as Deliveroo (Cant, 2019; Tassinari & Maccarrone, 2020; Woodcock, 2021). Such protests are often sparked by changes in the system of distributing shifts and orders or remuneration, which are carried out regularly and without prior consultation with workers. Such a change, for example, led to intense protests in London in August 2016, with spontaneous strikes and demonstrations outside Deliveroo's London headquarters (Woodcock, 2016). Based largely on organisation through social media and networks, these spontaneous and relatively unorganised protests marked the beginning of a cycle of visible struggles in platform-based food delivery across Europe (and beyond). In Berlin, too, there were repeated protest actions against Deliveroo and, as in many other cities, these were mainly based on informal networks and grassroots unions. While larger unions (with exceptions) often find it difficult to organise self-employed platform workers, grassroots unions in various European countries have successfully experimented with organising and fighting strategies in the field of platform work. The organisation often works centrally via social media and informal networks of the riders or via networking approaches in the migrant communities, which provide a large number of platform workers. The emerging protests and organisations are often just as informal and primarily digitally organised, as well as often spontaneous and unstable, thus reflecting the technological and social composition of platform labour.

## 6 Conclusions

Looking at the three platforms examined here, it can be shown that work on platforms rarely turns out to be the smooth and controllable process that management and some critical analyses imagine it to be. The combination of algorithmic management and flexible contractual relationships, which we have described as a central element of platform labour, is also the structuring element of many micro-conflicts on platforms. The labour model of the gig economy, which aims both at precise control and at shifting risk to the workers, leaves gaps that are constantly sought and exploited by workers. These can be blind spots of algorithmic control as well as rights that workers must be granted in order to maintain the construct of independent contractors and many other things. Payment via flexible piece wages also leads to an ongoing and

generalised conflict over the appropriation of the value generated. On the one hand, platforms try to keep as much of the work as possible unpaid, nudge workers to accept low-paid jobs or take risks, while on the other hand, the workers try to use the rules to their advantage, trick algorithms and entice customers away from the platforms.

This constant struggle for uncertain profits and insecure income is part of everyday life in platform labour and characterises its latent conflictual nature and the strategies and actions of the workers. Despite the existing control elements, which fragment the situation of workers on several levels and limits, a constant struggle about the appropriation of the profits produced through platform labour can be observed. On a subjective level, these conflict strategies for workers go hand in hand with different, sometimes ambivalent attitudes towards management and companies. While some breaches of rules seem necessary to the workers to do the work and do not necessarily affect the relationship with the company, other strategies feed on an explicit distancing from the company, usually out of frustration with unfair pay or irresponsible management. The latter also tends to lead to the more strategic and solidarity-based forms of collective cooperation that have been shown here.

Resistant practices usually include a calculative element on the part of the workers, which weighs up the advantages and disadvantages of possible actions depending on the situation. In contrast to conventional labour arrangements, algorithmic control of work exercised at a distance closes many gaps in autonomy (shortcuts, negotiations with superiors), but also opens up new possibilities (blind spots in the algorithms, manipulation of the connection, agreements with customers and employees). The gains in autonomy that workers make possible through these actions and strategies are never to be regarded as pure gains in freedom, but also remain ambivalent. They go hand in hand with the threat of sanctions, lawsuits, fines and “lockouts” from the platform companies, so they can sometimes turn into their opposite for workers (Ferrari & Graham, 2021, p. 14). In the case of the Helping platform, it is also evident that the workflow can be controlled far less strictly and narrowly than is generally assumed for platform work. Control takes place here primarily passively and via written customer reviews, which makes the relationship with customers essential for workers. This is also manifested in the subversive practices, specifically in complicity in circumventing the platform.

The strategies shown here can be observed both on an individual and on a collective level, whereby both levels often overlap. While individual practices usually revolve around avoiding sanctions, unwanted orders or increasing income, collective processes are characterised by mutual support and solidarity as well as efforts to reduce information asymmetry—whether through exchange or through joint reverse engineering. Visible cases and more explicit industrial action strategies almost always build on the collective practices outlined here and the transitions are often fluid. The perspective on micro-practices and informal resistance provided in this article broadens the view of the potential for conflict in platform companies.

Across the platform economy globally, we can observe this latent conflictuality of platform labour. The everyday tricks, resistant acts and individual and collective attempts of workers to better their situations (which sometimes evolve into wildcat

strikes and full-blown labour conflicts which build upon these daily experiences) can be understood, with a nod to the work of Romano Alquati, as forms of invisible organisation, not only with a view to the informal but effective forms of organising among workers, but also because these conflicts take place in a playing field structured by capital's attempt to overcome its own contradictions (Alquati, 1975, see also Williams 2013). We have argued that the characteristic attempt of the gig economy to achieve control while outsourcing risk structures the everyday strategies and conflicts waged by workers. This again stems from a specific political and economic situation shaped by the multiple crises of the present. This is the backdrop against which we have hinted to the importance of the platform economy as a laboratory of capital and field of struggle over the future of work to underline the importance of these conflicts.

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