SPATIAL AND SOCIAL EFFECTS OF PLATFORMIZATION

#FairDelivery?
Potential for and Limits to Alternative Platformization

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Introduction

Why should we think of intermediary websites that do not rely on venture capital, rent-based accumulation, and algorithmic matching as platforms? Participants at an online conference on platform urbanism (PU) at the University of Graz in March 2021 raised several such critical questions while discussing diverse platforms in sectors such as care, delivery, and short-term rentals. Viewed as an emerging mode of producing the urban, the concept of PU increasingly supplants the smart city as a conceptual framework for analyzing changing urban realities (Barns 2019; Bauriedl/Strüver 2020; Leszczynski 2020; Sadowski 2021). However, the recent extensive and multifaceted examination of platform economies and practices in urban studies and human geography comes with the danger of neglecting to thoroughly define and reflect on implicit assumptions – the latter being of upmost relevance for accurate analyses, as Ticona and Mateescu's (2018) critique of the dominance of the *Uberization narrative* has shown.[1]

Reflecting on implicit assumptions has become even more important as social grievances connected to the rise of platform economies have led to calls for *platform cooperativism* (Scholz 2016) and *platform municipalism* (Thompson 2021). Such projects promise alternatives to "end[ing] up with unaccountable and undemocratic organizations managing key digital infrastructures of our cities" (Graham 2020: 3). They seek to address issues that are most frequently

1 The authors argue that equating lean platformization with the spread of Uber's business model leads to the neglecting of aspects specific to care work. These include the feminization and racialization of labor and specific challenges, such as informality and invisibility, associated with labor in domestic spaces.

associated with lean platforms of the urban on-demand economy, such as Lieferando, Helpling, and Uber. These platforms specialize in brokering individual services (such as care, cleaning, grocery shopping, or food delivery) and operate based on maximized outsourcing – of labor and fixed capital but also of training and maintenance costs – to pursue strategies of rapid expansion driven by venture capital (VC; Srnicek 2017: 75ff.).

The *alternative* in alternative platformization must, thus, be assessed by addressing these issues and questions as to how alternative platforms differ or should differ from existing corporate ones: what are the necessary conditions for calling a socio-technical ensemble a platform? Moreover, what is not part of the platform logic but rather of the capitalist logic specific to corporate platforms and how might alternative platforms be different? Thoughts similar to those expressed in these questions and the question that opened this paper troubled us in a recent research project on the self-proclaimed "sustainable food delivery platform" Velofood in Graz, Austria (Ecker/Strüver 2022). Neither the financial model and strategy of this owner-run platform nor the mode of organizing its bicycle-based courier fleet seemed to fit commonplace assumptions associated with lean platforms.

Focusing on the European context and lean platforms, I therefore aim to offer in my contribution a deeper understanding of this problem by linking two distinct threads. Firstly, I present an overview of the definitions of *platform* frequently employed in current academic debates. Secondly, I draw on our case study in Graz, exploring how the examined food delivery platform differs from more conventional ones. In the conclusion, I summarize assumptions about the socio-technological aspects of platformization and present a framework for reflecting on alternative platforms.

The platform in platform urbanism

With the spread of lean platform services in urban spaces, the importance of digital platforms for the mediation of social and economic relations has increased. Hence, urban geographers increasingly apply the concept of PU to analyze the ways platformization alters the production of urban space (Barns 2019; Leszczynski 2020; Hodson et al. 2021). In this framework, the meaning of *platform* extends beyond its technological definition as a programmable interface (Helmond 2015) to encompass the platform as an organizational form

for a data-based business model (Srnicek 2017; van Doorn/Badger 2020) and a mode of governing (Barns 2019; Altenried 2020).

Often drawing on Srnicek's 2017 book *Platform Capitalism*, authors writing on PU define the platform as a digital medium of interaction – an infrastructure allowing two or more parties to interact – or, more abstractly, as a system "comprising a set of stable core components or services, linked to an evolving set of peripheral components or services" (Lee et al. 2020: 117). In the case of lean platforms, this interaction typically takes the form of a transaction of labor power between customers and workers or third parties, such as restaurants. A closer look reveals that such platforms are themselves peripheral services linked to infrastructural platforms such as Google Maps, PayPal, and so on (van Dijck/Poell/de Waal 2018).

The analytical strength of the concept of PU lies in its focus on the mediating role of platforms. In contrast to rather "ill-defined" terms (Lee et al. 2020: 117), such as *smart city*, PU situates the analysis of the datafied city in everyday practices such as shopping, cleaning, housing, dating, or holiday planning. Taking the infrastructural role of platforms seriously, PU focuses on the infrastructural power these platforms develop as mediators of such socio-spatial practices (Bauriedl/Strüver 2020; Bissell 2020; Strauss 2020; Barns 2019). Platforms are viewed as emerging *urban institutions* – or *strategic terrains* – that distribute agency in a differential and unequal manner (van Doorn 2020; Ecker/Strüver 2022).

A necessary precondition for understanding a part of urban infrastructure as a platform herein is its functioning as a medium of interaction. However, further assumptions are often articulated. These derive especially from the expanded meaning of platform as a form of company and are heavily influenced by the fact that lean platforms have become the paradigmatic cases used to discuss platformization in cities. Hence, these assumptions concern aspects of their business models, such as the algorithmically controlled organization of labor, maximized outsourcing, the collection and valorization of data, and a VC-driven logic of rapid scalability. In what follows, I discuss these interconnected aspects (dynamics and ownership, function of data extraction, and labor organization) and their strategic interrelation (platform politics), thereby creating the basis for an analytical framework that differentiates the platform as an organizational form from the lean platform arising in many of today's cities as a result of VC-driven platformization. This systematization provides a tool for an analysis of current processes of platformization and enables the mapping of alternative platform futures.

Ownership and dynamics: Network effects and monopolistic tendencies

First, certain dynamics are associated with platforms. Network effects are frequently used to explain the rapid expansion of platforms and are key factors contributing to monopolistic tendencies (see, for example, Srnicek 2017: 45; Lee et al. 2020: 118; van Doorn/Badger 2020: 1489). Simply put, the term relates to a self-reinforcing tendency in network formation: as more connections are made, the network becomes more useful for additional nodes, leading to further connections.

Such network effects are closely linked to strategies of growth-before-profit. These strategies are associated with many platforms' VC-backed business models, which rely on monopolizing data and market segments. Studies on PU make an important contribution here, embedding the currently booming business model and practices of lean platforms in space and time. Authors draw attention to the fact that it was not only technological developments (of the internet, computer technologies, etc.) that facilitated platformization; rather, flexibilization of labor relations (Zwick 2018) and increasing financialization since the 1970s have played important roles. These processes prepared the ground for the emergence of business models relying on large amounts of VC and the labor of precarious urban populations in the aftermath of the 2008 financial crisis (Sadowski 2021).

While these dynamics are frequently assumed as general features of platforms per se, our research on the alternative food delivery platform Velofood helps to reflect on these observations by questioning quasi-deterministic assumptions regarding network effects and the importance of the number of connections in a network alone. Velofood focuses on a higher-priced and more ecologically sustainable market segment than its competitors Mjam and Lieferando and has only about a third of the number of restaurants mediated by its competitors; nevertheless, Velofood survives against its VC-backed international counterparts in Graz. As an owner-run company, it does not meet the criterion of collective ownership present in worker cooperatives and is subject to the will of the individual owner. As of 2021, however, this also means that there is no VC-induced pressure to expand. In an interview with us, the Graz-based company's management explicitly claimed to focus on capitalizing on the local, higher-priced market segment instead of scaling up and replicating the model elsewhere. The example serves as a reminder that not all connections in a network are equal and that the number of connections alone is not all that matters. Networks, instead, exhibit meaningful qualitative dif-

ferences that are important to explain platform dynamics and opportunities for alternative platforms.

Furthermore, the example of the owner-run platform Velofood stresses the need to question network effects as a technologically deterministic process driving monopoly formation and quests for *functional sovereignty* (Sadowski 2021) in certain service segments of the platform economy. Considering the historical conjuncture in which most lean platforms have emerged helps to illustrate that they evolved as assets in a financialized economy. Although the technological logic amplifies monopolistic tendencies, it is the VC-backed business model and stock-market oriented ownership model that necessitate growth-before-profit strategies and attempts to monopolize market segments. Neither Velofood nor worker cooperatives elsewhere (e.g., co-ops within the CoopCycle federation) follow this logic.

The function of data extraction: Valorization and control

Second, there are various interpretations of the role of data in the political economy of platformization. For authors drawing on Srnicek (2017), data represents the new raw material necessary for the continued existence of capitalism in the 21st century; the platform is the corresponding business model harnessing this force of production. Zuboff (2019) assigns data a similar degree of importance, although, instead of framing platforms as innovations on the side of production, she focuses on their function as "means of behavior modification" and control, stressing the role of platforms as politico-economic technology over a merely economic function. Other researchers view data as less central. For example, Staab (2020) argues against viewing the extraction of user data as essential to the definition of platforms and as an accumulative logic sidelining the exploitation of labor and natural resources as the main sources of value. Instead, the author argues that platforms are based on the (old) accumulative logic of extracting rent from *proprietary markets*. Collected data on users, competitors, and so on serves secondary functions such as (a) monopolizing data on market developments (information control) or (b) controlling access to and competition within platform ecosystems (access control). However, both the socio-spatial implications of a changing mode of rent-based accumulation and the politics and behavioral implications of mass data collection and surveillance are important in theorizing PU (Elwood 2021; Sadowski 2021).

Hence, it has been puzzling to see the peripheral importance data plays for the local delivery platform Velofood. Data might be valorized in a number of ways, but this company practices none of those methods. Customer data could be used for (a) advertising, (b) marketing to restaurants (e.g., as a consultancy service), (c) entering the restaurant market (e.g., with its own ghost kitchens), or (d) developing an algorithm that can be valorized as an asset by financial markets. In contrast, the management offers insights and advice to partner restaurants based on orders for free. Data also does not play a central role in the management of the workforce. The smartphone applications used for communication and delivery work do not break down the labor process into micro-tasks that are tracked and distributed algorithmically. The ordering and delivery processes still require the transmission of a large continuous flow of data – a fact that drew attention to itself when server and app functions crashed due to increased use during COVID-19-related lockdowns. However, the way the data is handled cannot be described as extractivist using the narrower meaning of extractivism: an exploitative process drawing data from a primary circuit to be sold in a secondary circuit.

Besides, although smaller platforms such as this example from Graz cannot be seen as means of behavioral control, we could nonetheless identify changes in practices among parties participating in the platform ecosystem. Driven by platformization and accelerated by COVID-19-related lockdowns, several restaurants adapted their operations to increased platform sales. Such changes ranged from reorganizing labor processes in restaurants to opening new sites for delivery and pick-up only. Here, we observed a 'recalibration' of practices – although the company may not consciously intend to recalibrate practices of market participants, the platform terrain incentivizes and disincentivizes certain changes in the market.

Organizing labor: Algorithmic control and social subjection

Third, lean platforms are assumed to be based on a model that maximizes the outsourcing of labor costs and uses algorithmic management (Altenried 2020). There are two complementary aspects to this model of organizing labor. On the one hand, (nominal) independent contractors are frequently used to undercut labor standards (regarding wages, safety, etc.) and to outsource risks (van Doorn 2017). On the other hand, digital technologies are used to break down the labor process into tasks and allow algorithmic control of processes such as performance tracking or shift planning. This algorithmic con-

trol allows the disciplinary power associated with the factory as an enclosed space to spread throughout the urban fabric, for example, into public streets, private homes, and so on (Altenried 2020). This *digital Taylorism* is frequently identified as necessary to enable platform companies' growth strategies, and, as some authors argue, it may be that platforms cannot be profitable without this extensive outsourcing of costs (for this argument, see Srnicek 2017: 121).

However, to assess the potential of alternative platforms, it is necessary to determine whether this model of organizing labor is necessary for a platform to be feasible or whether it is merely a feature of capital-driven platformization. As Flanagan (2019) argues, considering the historical context of precarious service work helps to improve our understanding of platformization. Although managers of food delivery aggregator platforms such as Deliveroo or Lieferando tend to present their businesses as innovations, they show their awareness of this historical context when drawing on the image and work ethic of bicycle messenger culture for advertising purposes (for research on bicycle messengers, see, for example, Kidder 2006). The Graz-based delivery company Velofood, in fact, continues to organize the labor process using a model that is typical for this industry.[2] As with many other messenger services, (nominal) independent contractors rely on constant communication via a walkie-talkie app and a dispatching team to coordinate deliveries. While delivery companies such as Lieferando, Mjam, and Velofood face similar coordination problems when it comes to their deliveries, Velofood's approach focuses more on interpersonal communication and teamwork. This does not necessarily mean that its model ensures better working conditions – in fact, the anonymity and depersonalized labor process in an algorithmic system might be beneficial in meeting certain needs relating to, for example, language skills, saved time, and interpersonal and emotional stress. However, the continued existence of the model serves as a reminder of the fact that there are different ways to organize platform labor. Additionally, at least in the delivery

2 There is another important difference between Lieferando and Velofood that cannot be overstated, as academic research frequently misrepresents the platform. A platform such as Lieferando operates as an aggregator platform – in most cases, planning and executing delivery is left to restaurants and their precariously employed delivery workers. This is especially true when we look beyond the case of Graz. Lieferando's delivery share among processed orders is below 20 % in most national markets and only 7 % in the German market (Just Eat Takeaway.com 2021: 21). Typically, such companies simply aggregate food delivery options and charge delivery commissions, while companies such as Velofood actually offer food delivery.

sector, successes such as pushbacks against fake independent contracting and the establishment of the first collective bargaining agreements and workers' councils have been achieved in many European contexts such as Spain, Germany, and Austria. Extreme forms of digital Taylorism might thus be viewed as impermanent features of platformization as labor organizations succeed in inscribing workers' interests into platform terrains.

Platform politics: What, how, and for whom?

Fourth, each platform has its own *platform politics*[3] consisting of an answer to the following question: which problems does the platform address, in what way, and for whom? Most lean platforms are based on a specific aspect of reproductive labor for which they offer a commodified response to those who can afford it (Huws 2019). Addressing platform politics is essential when considering alternative platform futures – is the way a company, such as Lieferando, addresses the issue of food provision an adequate systemic response that factors in the needs of all parties involved (workers, restaurant staff, customers, urban traffic, etc.)? The answer is frequently negative, as many platforms "seek control and reward while abdicating responsibility to those who perform the labor that powers them" (Graham 2020: 2f.). Such strategies of disembedding and shedding of responsibility adversely affect systems of vocational training (e.g., formal education for taxi drivers), regulation (e.g., existing price mechanisms, labor standards), urban infrastructure (road traffic, etc.) and other stakeholders in a given industry (e.g., restaurants).

While Velofood incorporates sustainability practices (e.g., bicycle delivery only, biodegradable packaging, favoring vegetarian and vegan restaurants) into its answers to the aforementioned questions, its platform politics are similar to those embodied in aggregator platforms such as Lieferando: it offers the promise of a commodified response in the field of social reproduction (Ecker/Rowek/Strüver 2021). A restaurateur stressed this similarity when

3 Although the term *platform politics* has already been featured prominently in a 2013 edition of *Culture Machine*, I am using it with reference to Srnicek (2017: 46f.), who uses it in passing: "Finally, platforms are also designed in a way that makes them attractive to its [sic] varied users. While often presenting themselves as empty spaces for others to interact on, they in fact embody a politics."

explaining to us that Velofood has "basically just copied the concept from Vienna […] This is basically exactly the same concept as Foodora. They have those tablets, which they have in the restaurants, [and they] have a menu […] This is really the same everywhere." Restaurateurs view delivery platforms ambivalently because they offer limited economic profitability due to high fees, the disruption of labor routines, and packaging costs (Ecker/Strüver 2022). From this point of view, the question of what Lieferando would look like if it were a cooperative seems secondary to the question of whether there could be different platform politics that would, for example, be more favorable to smaller restaurants or produce less traffic and waste. When imagining alternative platform politics, authors can also learn from feminist critiques regarding the history of the automation of domestic work (Srnicek/Hester 2021). Lean service platforms reproduce the individualization of reproductive labor inherent in older techno-solutionist approaches that sought to replace the labor of servants and family members with machines instead of fundamentally questioning the gendered division of labor.[4]

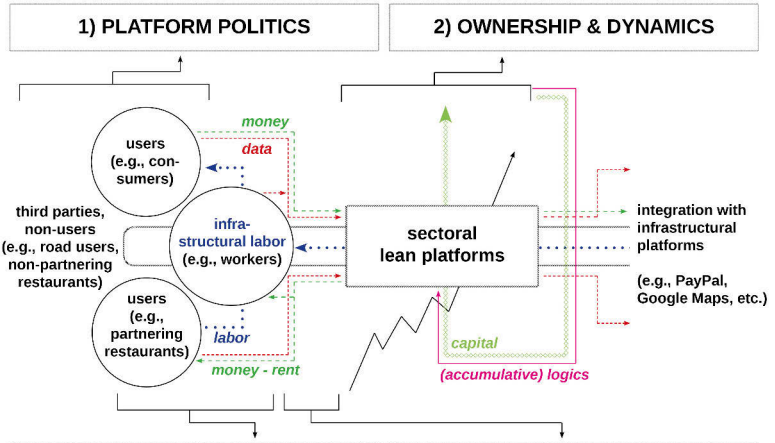
Focusing on platform politics helps to reveal assumptions about how a social problem is imagined through particular platforms and to identify what role platforms might play in systemic responses. The platform politics of VC-driven platforms are almost exclusively centered on isolating a part of reproductive labor, turning it into a buyable service and marketing this labor as an individualized response to a social problem and as a vehicle to attract VC. Still very little is known about ways platforms could offer collective and systemic answers to address questions of ecological sustainability or the current spatial and gendered division of labor.

Conclusion

Overall, discussing an alternative delivery platform that is not focused on data extractivism, algorithmic management, and VC-backed expansion provides a basis for reflecting on how most current platforms function and how alternative platforms might function. The discussion can be summarized as a set of questions and a resulting framework that is useful as a toolkit for future analyses (see Fig. 1).

4 Platforms even fall short of these approaches by adding the regressive aspect of not promising automation but offering to replace labor with (other) precarious labor.

Figure 1 Framework for mapping alternative platforms



1) Platform Politics	2) Ownership & Dynamics	3) Model of Labor Organizing	4) Function of Data Extraction
(a) Which problem(s) does the platform address?	(a) What is the ownership structure?	(a) What role does the outsourcing of labor play, and how are the working conditions?	(a) What role do data aggregation and extraction play in the functioning of the platform?
(b) In what way does the platform address the problem(s)?	(b) What logic does this ownership structure inscribe into the platform?	(b) What role does digital Taylorism play? How is the workforce subjected to the labor process (parts of machinery vs. social subjection)?	(b) What kinds of socio-spatial practices does the aggregation of data and actors incentivize/ disincentivize?
(c) Who does the platform address, and what conditions for participating in the platform terrain does it establish?			

(Ecker 2022)

Discussing our case study from Graz reveals common features of lean platforms while also revealing that some features commonly associated with platforms are specific to capital-driven platformization and not necessarily part of platformization per se. This might help us address questions such as the one raised at the beginning of this paper. It can make sense to analyze certain parts of digital infrastructure through the lens of platformization even if they do not exhibit some commonly assumed core characteristics. The reflection offers two arguments for this: (a) platformization without some of the features of capital-driven platformization can provide insights as to how

alternative platforms might function and offer inspiration for features that unions or policymakers could demand from VC-backed platforms (e.g., free access to aggregated data collected by the platform or a labor process wherein workers are not reduced to the role of underpaid "cogs in the food delivery machine"[5]); and (b) sectoral platforms such as Velofood may not function as programmable platforms in the computational sense, but they still channel users toward infrastructural platforms and create a terrain that is shaped by their platform politics, in turn shaping the agency of participating nodes.

Furthermore, this contribution highlights the importance of platform politics. An alternative model with respect to labor processes and strategy may still reproduce the same systemic response capital-driven platforms offer: a commodified response to the crisis of social reproduction. Hence, my reflection enhances speculations about alternative platform futures by including questions concerning the platform service itself.

These two aspects lead to a third concern: there seems to be little hope that dominant lean platforms such as Lieferando, Uber, or Helpling will be replaced if alternative platforms do not follow an expansionist logic and do not use other core features of capital-driven platformization that allow rapid scalability, such as the outsourcing of risks. Many analysts expand upon this point by arguing that lean platforms will be a short-term phenomenon because they are not economically viable enough (Srnicek 2017: 120ff.). The question about platform politics adds doubt to this already uncertain future perspective about whether an alternative platform that embodies the same platform politics but addresses some concerns with respect to data extraction or working conditions – i.e., 'a fair Lieferando' – should be seen as a satisfying result when imagining alternative platform futures. Instead, such reflections point in another direction: alternative platform futures might consist of qualitatively different responses. Such platforms might embody responses that recalibrate "the way in which we, as citizens, seek to know, interact, document and traverse" (Barns 2019: 10) in ways that rearticulate the spatial and gendered division of labor. Thereby, they might offer more equitable systemic responses to questions related to social reproduction.

5 Quote from a delivery worker at a union rally at the Deliveroo headquarters in Berlin attended by the author on June 28, 2017.

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