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RE-VALUING PLATFORMS, RECLAIMING THE LOCAL (PRECONSTITUTED PANEL)

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This panel brings together emerging scholarship that challenges the contemporary hold of major platforms over public and private life. It critically questions the scope, valence, and embeddedness of platforms in the everyday, challenging (commercial) platformization as the new normal. We attempt to offer new ways of managing, changing and co-opting platforms for the benefit of end-users rather than proprietors only. To this end, the panel discusses and debates 'non-market' approaches to tackling social and environmental effects of platforms. It is designed to build on recent work within infrastructure, platform and critical data studies to suggest alternative approaches to the neoliberal ordering of economic life. A central question is whether the data streams monetized by “big tech” can be harnessed for public, democratic, or socialist ends; in doing so, bringing them 'in house' and into competition with big tech itself. In other words, the panel takes a “protocological” (Galloway 2004) resistance approach, in appropriating the methods of algorithmic- and data-governance occurring under platformization, and utilising them at the regional (state) or (hyper-)local (city, city block) level. Moreover, it seeks to highlight examples of successful community-based and cooperative instances of platformization. Looking at the seemingly ruthless efficiency of Google, Apple, Facebook, Amazon and Microsoft (GAFAM) in the extraction of value through digital means, the panellists ask: what would resistance look like if we use the economic and infrastructural strategies levied against us?

The first paper gives a comprehensive overview of the issues at the heart of corporate platformization, asking why it is so hard to develop sustainable alternatives once major platforms come to dominate the field. It examines large global platforms and their competitors through the lens of markets, infrastructures and finance capital, arriving at an assessment of the pre-conditions for effective alternatives in public infrastructures. Tackling the question of “alternatives” from a different angle, the authors of the second paper distance themselves from GAFAM as a model to be challenged or emulated. Instead, they draw on long-term fieldwork within communities and sectors that experiment with locally owned/governed platforms, offering new ways of dealing with questions of labour and welfare under “actually existing platformization”. The third paper explores further the lesson learned from local governance, emphatically bringing the spatial and urban back into question of governance. By looking at the telephone as its

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central case, it unpacks the multi-stakeholder tangle of ownership and value in urban spaces to offer a role for citizens in technological governance, which the platform discourse seemingly excludes. Finally, the last paper reflects on some of the points raised in the previous papers to envision centralised decision-making as a potential way forward. It re-visits the socialist calculation debate –on whether centralised planning is a viable market alternative - to re-envision Uber’s price-surge technique as a template for non-market decision making mechanism, where local stakeholders incentivise platforms to incorporate communal values.

The panel is intended as a theoretical component to a pre-conference workshop within AoIR 2020, that seeks participants who have (or desire) practical experience of developing, trialling, and implementing such approaches at a variety of scales – but particularly from the regional (state, interurban etc.) to the local (municipality, town etc.) and down to the ‘hyper-local’ (company facility, airport, university campus etc.). The panel thus builds on the case studies, participant experiences, and warnings of the workshop to suggest conceptual pathways into re-thinking and re-working platforms and the public value contained therein.

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WINNER TAKES ALL: WHY IS IT SO DIFFICULT TO DEVELOP SUSTAINABLE ALTERNATIVES TO DOMINANT PLATFORMS?

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Introduction

With few exceptions, platform ecosystems are highly concentrated markets. In the West, US-based companies—Alphabet-Google, Apple, Facebook, Amazon, and Microsoft—manage their own ecosystems and have made inroads into controlling and shaping the global internet infrastructure (Couldry & Mejias 2019; Srnicek 2017). As a result, these companies increasingly steer the flow of public information while disrupting vital institutions and industry sectors, including education, health care, journalism, and transportation. This conflicts with key public values, undermining socio-economic equality and democratic processes, as well as the quality of public services (Van Dijck, Poell & De Waal 2018). In the light of these challenges, there is a strong need for local, ‘commons-based’, ‘non-proprietary’ alternatives to dominant platform corporations (Benkler 2006). Ideally, such alternatives have a public benefit mandate, operate outside the bounds of finance capital, and function akin to public utilities instead of controlling proprietary data infrastructures.

Around the globe there have been a wide range of efforts to develop alternatives to current manifestations of platform power (Scholz 2016). Important examples are the privacy-oriented search engine DuckDuckGo, the ad-free social network Ello, the alternative software ecosystem PublicSpaces, the local nonprofit ridesharing platform RideAustin, or the ethical holiday rental initiative Fairbnb.coop. These and many other non-profit platforms provide viable alternatives to the dominant commercial platforms. Yet, many of these alternatives have not been able to scale up their operations or have disappeared altogether. This paper examines why it has been and will continue to be difficult to nurture sustainable alternatives to incumbent platforms. Building on research in platform studies, political economy, and business studies, we argue that dominant platform companies benefit from powerful network effects, from economies of scale when it comes to infrastructural investments, and ready access to finance capital (Constantinides, Henfridsson & Parker 2018).

Markets

As business scholars and economists have pointed out, digital platforms can be seen as “multi-sided markets”, which mediate between end-users and a wide variety of “complementors” or third parties, including content producers, service providers, advertisers, data intermediaries, etc. (Constantinides et al 2018). Such markets are subject to powerful network externalities or effects, which assume that the value of one side increases (direct effects) when additional actors join the network, or increases the value of the other side in the market (indirect effects). Indirect effects are a unique

property of multi-sided markets. For example, the more drivers join a ride-hailing service, such as Uber or Lyft, the more attractive the platform becomes for riders, who will have near-instant access to their next ride. Consequently, in market sectors that benefit from internet connectivity, such as ride-hailing, hospitality, or virtually every sector of the cultural industries, network effects are particularly strong, crowding out competitors as a result. While these dynamics inherently benefit incumbents, they do not necessarily preclude alternative platforms to enter a market or from attracting end-users and complementors. That is to say, network effects may equally benefit commons-based alternatives, such as Wikipedia or similar decentralized, peer-produced platforms. The challenges for alternatives only become fully apparent when looking at infrastructures and finance capital.

Infrastructures

Recent work in platform and software studies has demonstrated that dominant platform companies are evolving into large scale infrastructures, which require institutional actors to operate in corporate-owned ecosystems (Van Dijck et al. 2018; Plantin et al. 2018). For example, login functionalities provided by Facebook and Google have become key modes of identification, platform data analytics are essential for targeting end-users, while cloud hosting by Amazon, Microsoft, and Google have become indispensable for offering online content and services. Operating under a unified corporate umbrella, leading platform companies operate a range of such interrelated services. Because of their ubiquity, their accessibility in terms of economic and transaction costs, and a general lack of non-proprietary substitutes, alternative platforms are inevitably drawn into incumbent platform infrastructures. This has major implications. Platform services, from data analytics and login to app stores and cloud hosting, have commercial values and objectives baked into them, fundamentally shaping how alternative platforms can operate. As research on civic engagement and activism has demonstrated, commercial platform architectures tend to sit in tension with the objectives and values of alternative projects (Poell 2014; Milan 2015). Similarly, for cultural production to be viable in the platform economy requires business model alignment and infrastructural integration with incumbent platforms (Nieborg & Poell 2018).

Finance capital

Consequently, any genuine alternative requires significant capital investments to rival the accessibility, scale, and reliability of corporate platform infrastructures. As different infrastructural services—identification, data analytics, search, etc.—are closely entangled, a range of alternative platform services will need to be developed, designed on the basis of public values rather than commercial objectives. It is particularly challenging to do so in competition with dominant platform companies. These companies typically operate in concentrated markets, allowing them to siphon off excess rents (i.e. profits). Together with ready access to finance capital, corporate platforms can acquire or price out competitors. Unlike non-profit platforms, corporate platforms can cross-subsidize their own services, using profits from one business line to prop up loss leading yet essential infrastructural services. Facebook or Google's login services, for example, do not generate any profit, but are vital elements of the data and

advertising infrastructures of these companies. By cross-subsidizing them, they solidify their position in the platform ecosystem.

So far, alternative public platforms have mostly been developed in isolation by local or national actors. For sustainable alternatives to emerge, it is vital that regional or global consortia of public institutions and NGOs invest in a range of connected, publicly-owned infrastructural services, including but not limited to identification, hosting, data analytics, and mapping. Such a public infrastructure would allow alternative platforms to operate in correspondence with key public values. And crucially, the linkages between alternative platforms in a shared public infrastructure would trigger network effects that enable such initiatives to scale up quickly and become sustainable in the long-term.

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REASSEMBLING THE SOCIAL (STATE): PLATFORM LOCALISM AND ACTUALLY EXISTING PLATFORMIZATION

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What if, instead of starting with GAFAM platforms and asking how their datafied exploits can be democratically reclaimed at the local level (as the panel organizers propose), we recalibrate our perspective by focusing on locally owned/governed platforms and asking how these participate in the ordering of economic, social, and political life? One critical advantage of such an approach is that it redirects our attention away from globally hegemonic corporate platforms and towards emergent practices of what we – building on Brenner and Theodore (2002) – call “actually existing platformization”: experimental and sometimes makeshift initiatives that congeal around the platform as a programmed site of market-making and value creation, as well as an aspirational model for (re)organizing society from the ground up. While such local initiatives have proliferated over the past few years, they have thus far received little scholarly scrutiny (for exceptions, see Poderi, 2019; Falco and Kleinhans, 2018; Ansell and Miura, 2018; Scholz and Schneider, 2016). Another advantage is that this approach problematizes presumed oppositions between “market” and “non-market”, “public” and “private”, and indeed between “local” and “global”, pushing platform critique beyond its penchant for such dichotomies. As we will argue and demonstrate, “platform localism” is a phenomenon whose aspirations and impacts have a global reach, while actually existing platformization is a practice happening in arrangements where private and public interests become entangled through market-based interactions. Once citizens and local governments are encouraged to act as “producers” of goods and services and build their own (platform-based) social infrastructures in collaboration with incumbent and start-up market actors, it also becomes harder to distinguish neoliberal reason and governance from its alternatives. Moreover, rather than simply existing in resistance to or in competition with big tech, we contend that platform localism has a more ambiguous structural relation with platform capitalism, one that ranges from dissociation via (mutual) dependency to complementarity.

This paper derives its arguments from the findings of a 5-year research project (currently in its third year) examining how platforms rearrange relations between market, state, and civil society actors. Through a cross-national comparative ethnography and policy analysis, the project investigates the variegated and multi-scalar impacts of platformization on three large cities in the Global North. For the occasion of this panel, we discuss two cases of platform localism – or actually existing platformization – that have grabbed the attention of our research team: platform cooperatives and post-welfare platforms. Platform cooperatives operate – in the vision of its main architect and promotor – at the forefront of a newly emerging “solidarity economy” (Scholz, 2016: 11), while sitting “squarely at the intersection of values and markets, organizing and

business, community institution and economic engine” (Hoover, 2016: 108; see also Sandoval, 2019). As cooperatively run businesses, the main aim of platform cooperatives is to leverage platform-based technologies for the common good, empowering workers and (their) communities by creating a platform economy in which the data-driven means of market-making and value production are owned as well as governed collectively. Post-welfare platforms, meanwhile, operate in the institutional space shaped by ongoing welfare state retrenchment and attendant experimentation with local, community-based social services provisioning (Turunen and Weinryb, 2019; Schou and Hjelholt, 2019). These initiatives, which match elderly citizens to local volunteers or coordinate municipal welfare services, likewise seek to exploit the affordances of digital platforms while at the same time drawing on existing resources and infrastructures – both public and private; material and immaterial.

While our paper will discuss the crucial differences between platform cooperatives and post-welfare platforms, we emphasize their similarities and argue that both can be understood as symptoms of what scholars have variously called “community capitalism” (Van Dyk, 2019) and “neoliberal communitarianism” (Van Houdt and Schinkel, 2013). Both notions point to the rise of “community” as the primary social entity tasked with taking responsibility for, and absorbing the risks/costs associated with, reproductive labor and social reproduction more generally (see also Muehlebach, 2012). Platform cooperatives and post-welfare platforms are each driven by the belief that communities, possibly in collaboration with local market and state actors, can solve the dual crises of precarity and social reproduction by seizing on the platform as at once a sophisticated technology and a social model predicated on market logics. Platform localism is thereby imagined to “unlock” operational efficiencies, (small-scale) network effects, and other forms of value that can be harnessed for the survival and flourishing of the common good rather than shoring up corporate dominance. Yet we also show how scenes of actually existing platformization are rife with (unacknowledged) social tensions, inequalities, and a chronic lack of resources. Rather than solving the democratic and reproductive deficits at the local level, post-welfare platforms and platform coops are sites where questions about who belongs to a particular community, who gets to shape notions of the “public interest” and the “common good”, and who can participate are being contested – although they are more often problematically disregarded.

Finally, this also raises issues with respect to who is enabled to derive value from platform-governed local transactions and who is excluded, or included predominantly as input for purposes of data extraction and valorization. These issues are particularly pertinent in cases where platform localism is materially supported by the software infrastructures of incumbent state and/or market actors. In such cases, rules and agreements concerning data ownership, governance, and exploitation play an especially critical role, given the risk of data-based surveillance and predatory activity. We thus conclude with a reflection on the extent to which (and modes through which) actually existing platformization “from below” both challenges and perpetuates the inequities at the heart of platform capitalism.

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THE MANY LIVES OF PLATFORMS: GOVERNANCE IN TIMES OF PLATFORM URBANISM THROUGH AN OPEN BUSINESS MODELS' PERSPECTIVE

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In today's climate to 'smarten up' our cities we navigate landscapes not only of bricks and mortar, but also of data and algorithms (Graham, 2020). It thus may not come as a surprise that attention is drawn to concerns underpinning 'participation' and 'datafication' paralleled by shifting modes of governmentality and governance, arguably, further deepening the neoliberal project (Kitchin et al., 2018; Rossi, 2019). It is precisely at this intersection that this paper is set. It puts a 'public value' perspective forward and departs from the premise that public value is changing and, particularly, public organisations need to engage with systemic change in the 'platform era' in new ways, where 'the platform' has become a prevalent and powerful term for the way contemporary society organizes and understands itself (Cusumano et al., 2019; Gillespie, 2010). Talking about what this new future might look like cannot happen without the input of a multi-stakeholder and ecosystem perspective, including citizens (or, users) and a collective understanding of what is valued, thereby highlighting the dynamics of making 'platforms' more responsible and sustainable in the public's interest. Ultimately, through the development of a framework for open business models (Chesbrough, 2006), this paper seeks to yield insight into the dynamics of a seeming shift in the ethos and logic of city governance in the 'platform' age (cf. Mansell and Steinmueller, 2020).

This blurring between physical and digital boundaries of the city are both part of, and produced by, the digital platforms that, today, are implicated in the structures that shape everyday life in the city, and play a key role in giving rise to novel needs for, and practices of public space engagement (Coletta and Kitchin, 2017). 'The platform' has become a prevalent and powerful term for the way contemporary society organizes and understands itself. While in the various literatures, ambiguity remains in defining the specifics of digital platforms, the term is associated with so-called platform companies like Facebook, Google and Uber, and commonly used to point to its penetration into the heart of society disrupting markets, labour relations, transforming social and civic practices as well as affecting democratic processes (van Dijck et al., 2018; Gillespie, 2018; Srnicek, 2017). With this advent of 'the platform' and adjacent logic of 'platform urbanism', critical attention in media and urban studies (and beyond) is urgently seeking to grasp what is going on, thereby highlighting, arguably, a fetishization of data and the overlooking of human elements and agency in urban processes (Barns, 2020; Mattern 2017; van der Graaf and Ballon, 2019). This is not new as research into the history of media has shown that when public and intellectual concerns over state, commercial, or media power are high, and when new technologies emerge, critical attention is rightly drawn to the platform's (or, media's) ideological influence on and/ or economic exploitation of users. In

other words, claims about users (or, audiences), in times of profound changes, go hand-in-hand with reasserting rather rigid accounts of power that tend to downplay, or preclude users and the significance of their everyday life (Katz, 1980; Livingstone, 2019).

Precisely such concerns warrant the investigation into the framing of citizen roles as, interestingly, the majority of platform-based initiatives in the urban context assert to be 'citizen-focused' or 'citizen-centric', which is, at the same time, arguably, being challenged by a data-centred discourse and focus on the collection of (intimate) information that can speak on behalf of citizens. Across the diverse range of methods for datafying citizens, their values, rights, self-governance and so forth have so far not been much vigorously considered, and hence, critically reflecting on this trend, this paper's contribution is three-fold. It aims: 1) to examine the citizens' participation in governance endeavours; 2) to identify the attention for the value and responsibility dimensions of platform governance; and, 3) to study novel institutional practices of governance at a time of myriad black-boxed systems, owned and operated by various companies, while little is known about what organisational and management commitments are embedded within them or how new forms of (communal) organisation emerge through their use.

In order to do this, the focus is on platform business models as they dictate (private and public, for and non-for-profit) actors' roles and all this entails as the underlying layer behind platforms' economic, social, and environmental 'behavior' (Magretta, 2002). In doing so, examining platforms' business models yields insights into their governance. Although all platforms are built on open business models (Fehrer, Woratschek, and Brodie, 2018), they do not use collaborative models in the same way. Identifying and classifying open business model(s) behind a platform facilitates the investigation of behavior, potential harms, sensitive stakeholder groups, sustainability, and appropriate policy measures. Several classifications are proposed in the literature for open business models (Frankenberger, Weiblen, and Gassmann, 2013; Kortmann and Piller, 2016), yet a perspective on studying governance cannot be easily distilled in the literature. To bridge the identified gap, and to get insights regarding platforms' governance in a way to support public values (Mazzucato and Ryan-Collins, 2019), a framework is developed to classify several types of open business models. Positioning a platform's business model in this framework gives insights regarding their governance. More specifically, this study explores differences between (open) business models vis-a-vis what makes their governance different. Applying a mixed methods approach (Tashakkori and Teddlie, 2003), it first develops a three-dimensional framework for open business models by following a multi-stakeholder and ecosystem perspective. Guided by this framework, the research systematically analyzes several platforms with (potential implication for, or) relevance to 'city governance'. Data is collected based on secondary sources which follows prior empirical research on business models (cf. Zott and Amit, 2008). Cases' business models are positioned in the proposed framework and then the gathered data is analyzed with cluster analysis techniques to develop a taxonomy for platforms' governance through identifying and classifying their open business models. Accepting this, the findings subscribe to a distributed accomplishment perspective of multi-stakeholder practices, (self)-governance, and 'platform politics' underpinned by the

objective of responsibility and sustainability dimensions of the role of 'platforms' in public service delivery.

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INFRASTRUCTURAL SOCIALISM: DIGITAL FEEDBACK AND NON-MARKETS

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In this paper we address the growing interest in the socialist calculation debate (Davies 2019; Morozov 2019; Cottrell and Cockshott 1993) by proposing the notion of *infrastructural socialism*. In an age variously characterized by platform capitalism (Srnicek 2016), surveillance capitalism (Zuboff 2015) or infrastructural surveillance (Gekker and Hind 2019), we propose to move on from diagnosing the present condition, to articulating a possible future. In this, we discuss the potential of leveraging digital infrastructures of major technology companies for the public good, beyond narrow usership or customer base. This article adds to wider discussion of digital rights to the city (Shaw and Graham 2017; Cardullo, Di Feliciano and Kitchin 2019), the rise of platform urbanism (Barns, 2019; 2020), and more specifically, the provision of common ownership of digital data and platforms (De Lange 2019). However, in distinction to the valorization of decentralized forms of data production, sharing and use typical of debates around open platforms and initiatives such as Wikipedia and OpenStreetMap; or the advancing of experimental, partial or otherwise liberal or ‘weak’ articulations of citizenship or common-ing, this paper returns to the question, and possibility, of centralized planning and decision-making. Thus, it speaks directly to recent polemical work on the unintentionally ‘socialist’ underpinning of corporate infrastructures and logistics (Phillips and Rozworski 2019). We attempt to explicate these abstract concerns with reference to traffic congestion as precipitated by the burgeoning use of ridesharing and navigation apps (Bliss 2019; Macfarlane 2019; Brown 2020). Particularly, following Morozov’s (2019) call to design ‘non-markets’ and develop digital ‘feed back infrastructure’, we examine Uber’s ‘surge-pricing’ mechanism as a possible locus for the non-profit allocation of resources, and with it a re-centralized public transportation system. Or, in other words, the possibility of bringing data streams - and their associated distributive mechanisms - ‘in house’. This is not to advocate a version of an “UberCity” (Leszczynski and Kitchin, 2019) where speculative market mechanisms redefine citizenship into consumerism, but rather raising the possibility of using such data-streams in non-market setting.

Our departure is the automation of labour, logistics and monetary flows exhibited by the most successful digital platforms. In particular, GAFAM (Google, Amazon, Facebook,

Apple and Microsoft) have utilized a combination of massive data collection, personalization, and machine learning to effectively anticipate user desires; acting in (semi-)monopolistic fashion and comprising 'the' or 'a' market, in totality (Nieborg and Helmond 2018). As Phillips and Rozworski point, the calculative infrastructures that underpin GAFAM is reminiscent of the socialist experiments in planned economies - but for the fact it seems to be working. One of the principal hurdles identified in the 1920s to centrally-planned (i.e. non-market) economies was the practical impossibility of communicating and calculating inputs (raw materials) and outputs (finished goods) across all industries, instantly or 'automatically'. Arguments advanced by liberal economists at the time (Mises and Hayek) suggested that the market was best able to reflect the value of goods automatically through a simple price mechanism, predicated on competition between market actors. The central claim was that this 'true' valuation could only be communicated quickly and confidently through the market; any centralized planning system was technologically and computationally impossible; at least within any reasonable timeframe.

Yet real-time proprietary data streams (user data, sensor data, object data) enable GAFAM and others to deliver a range of services; enabling the communication of various kinds of information automatically. This data informs the allocation of resources (raw materials, labor), the distribution of goods (consumer products, machine parts), the optimization of processes (user identification, payment, inventory updates), the streamlining of operations (production, quality control), as well as the general maintenance of the infrastructures themselves. Moreover, the delivery of these services is actually dependent on internal centralized decision-making and planning; not the market or market actors. This challenges the liberal argument made in the 1920s in support of market pricing, raising the question of whether they can be turned for 'good' (Daly, Devitt and Mann 2019). In this regard, Morozov (2019) suggests that the two main outcomes of data feedback is the optimization of existing markets and the solving of social problems (housing, transportation, employment). Similarly, Andrejevic (2019) emphasizes the necessary surveillant component of data infrastructures, allowing for control through prediction and mitigation rather than coercion and punishment. Our paper asks whether the optimization of existing data 'loops' can be detached from their current function (generating profit for monopoly tech firms) to communicate and calculate other forms of value (Gerlitz 2016; Stark 2009), while avoiding digital manifestations of 20th century state surveillance.

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