

Namberger, Fabian

Article — Published Version

Uber in Exurbia: Peripheral Platformization, Post-Suburbanization and the Public–Private Ridehail Partnership in the Toronto City Region

International Journal of Urban and Regional Research

Provided in Cooperation with:

John Wiley & Sons

Suggested Citation: Namberger, Fabian (2024) : Uber in Exurbia: Peripheral Platformization, Post-Suburbanization and the Public–Private Ridehail Partnership in the Toronto City Region, International Journal of Urban and Regional Research, ISSN 1468-2427, John Wiley & Sons, Ltd, Chichester, UK, Vol. 48, Iss. 6, pp. 1034-1054, <https://doi.org/10.1111/1468-2427.13278>

This Version is available at:

<https://hdl.handle.net/10419/313748>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<http://creativecommons.org/licenses/by/4.0/>

– UBER IN EXURBIA: Peripheral Platformization, Post-Suburbanization and the Public-Private Ridehail Partnership in the Toronto City Region

FABIAN NAMBERGER

Abstract

After their widespread legalization, ridehailing companies Uber and Lyft soon embarked on a new stage of their respective business models: the initiation of a wave of strategic partnerships with local and regional transit agencies across the North American continent. This article accounts for this trend by putting forward the concept of the public-private ridehail partnership (PPRP). It aims to render visible the PPRP as a variously contradictory attempt to splice Uber and Lyft's platform-based business models with the existing social and physical realities of North American post-suburban space. While conceived as a strategic response to pressing sub- and exurban problems such as low physical densities, widespread car centrism and extensive transit undersupply, the PPRP, as I argue, is neither able to adequately address these dilemmas nor to ultimately resolve them. Rather, the PPRP latches onto old—and sets in motion new—powerful dynamics of heightened uneven development and continued urban entrepreneurialism. Each of these two dynamics is explored through empirical analyses of two recent PPRPs in the Toronto city region: the Lyft–Metrolinx pilot carried out between July and December 2019; and Uber's ongoing partnership with the town of Innisfil, located about 80 km north of downtown Toronto.

In July 2019 the Province of Ontario's regional transit agency Metrolinx initiated a pilot partnership with Uber's closest North American competitor Lyft (Rosenblat, 2018: 217–20).¹ Harnessing Lyft's ridehail services as an on-demand first-and-last-mile feeder for Metrolinx's regional GO rail network, the pilot was in operation at four railway stations—Exhibition, Oakville, Unionville and Bramalea—between July and December 2019 (Lyft, 2019). The partnership offered Lyft customers a \$4 discount for each of their next five rides to or from the four stations, all of which were fitted with designated Lyft drop-off/pick-up zones (see Figure 1). Spread all across Toronto's urban fabric and the increasingly complex landscape of its downtown, in-between and (post-)suburban terrains (Filion *et al.*, 2011; Keil and Addie, 2015), the Lyft–Metrolinx pilot rendered visible a new phase of Uber and Lyft's respective operations in Toronto. Having gained legality through the entry point of Toronto's taxi industry in 2016 (Namberger, 2024), the two Silicon Valley companies started to encroach on new territory over a much

I would like to thank Kanishka Goonewardena warmly for his hospitality, both intellectual and literal, during my two research stays in Toronto. For their encouraging comments on earlier drafts of this article, I am grateful to Sinéad Petrusek and Christian Sowa, as well as Manuela Bojadžijev and the entire study group 'Migration, Labour, Digitalisation and Racism' at the Berlin Institute for Empirical Integration and Migration Research (BIM). I further want to thank the three IJURR reviewers whose insightful comments were tremendously helpful in refining the manuscript. Frank Rogge at HafenCity University Hamburg provided a most valuable support for the map included as Figure 2. Last but not least, a very warm thank you to all the interviewees who took the time to sit down with me and answer my questions. This research was funded by the following grants: Arts and Humanities Research Council, Consortium for the Humanities and the Arts South-East England; Studienstiftung des Deutschen Volkes; DFG Research Training Group 2725: 'Urban Future-Making: Professional Agency across Time and Scale'.

1 The Province of Ontario is Canada's most populous province, with Toronto as its capital and the city region of the Greater Toronto and Hamilton Area (GTHA) as the country's most powerful economic area. Lyft entered Toronto's ridehail market in December 2017, after Toronto's city council had legalized ridehailing platforms in the city in May 2016 (Valverde, 2018).



FIGURE 1 Lyft signpost at Oakville GO rail station marking one of several designated pick-up/drop-off areas at the station (photo by Fabian Namberger, October 2019)

wider extent: the vast network, reaching deep into Toronto's sub- and exurban hinterlands, of the city's regional transport system.

Notably, the Lyft–Metrolinx pilot forms part of a much wider trend. After their widespread legalization, Uber and Lyft started to initiate a full wave of strategic partnerships with local and regional transit agencies across the North American continent (Shaheen and Chan, 2016; Livingston Shurna and Schwieterman, 2020; Ruggles, 2020).² For the period October 2015 to August 2018, Schwieterman *et al.* (2018) document 29 partnerships between Uber and Lyft on the one hand, and transit agencies across the United States and Canada on the other.

This article accounts for this trend by putting forward the concept of the public–private ridehail partnership (PPRP). Alongside a broader growing interest in partnerships between private platforms and public agencies (Van Dijck *et al.*, 2018; Attoh *et al.*, 2019), the PPRP can be situated between three longer existing literatures in and beyond the realm of critical urban research. Debates on (post-)suburban infrastructures in general (Graham and Marvin, 2001; McFarlane and Rutherford, 2008; Young *et al.*, 2011; Lo *et al.*, 2015; Addie, 2016) and on the phenomenon of public–private partnerships (PPPs) in particular mark a first important touchstone (Boardman and Vining, 2012; Hodge *et al.*, 2012; Siemiatycki, 2015). Operating on a smaller geographic and financial scale than many other PPPs in the realm of transport and infrastructure (Torrance, 2008; Siemiatycki, 2013), the PPRP bears a strong resemblance to what John

2 Ridehail partnerships as described in this article have remained, as far as I can see, very much a North American phenomenon (Schwieterman *et al.*, 2018; Livingston Shurna and Schwieterman, 2020). One notable European exception is the French city of Nice where, in 2018, Uber entered into a one-year pilot program with local transit agency Régie Ligne d'Azur (Uber, 2018).

Loxley (2012) has called service-type PPPs. The latter, as Loxley explains, are public-private arrangements in which ‘the government retains ownership of assets but hands over the operating budget to a private company and shares any savings’ (2012: 28). It is along these lines that the PPRP has emerged as both a ‘tool of governance’, setting in motion policy innovations and on-the-ground infrastructural activities, as much as a ‘language game’ in which the word ‘partnership’ comes to substitute potentially more offensive terms such as ‘privatization’ or ‘outsourcing’ (Hodge and Greve, 2010: S9).

Second, and despite its recurrent inner-city appearances (Schwieterman *et al.*, 2018), the PPRP has manifested itself as a predominantly sub- and exurban phenomenon. As such, it stands in close relation to debates on the post-suburban nature of today’s North American city region (Sieverts, 2003; Young *et al.*, 2011; Keil and Addie, 2015). In contrast to the Fordist metropolis with its characteristically dualistic development path of dense inner cities versus sprawling suburbs (Soja, 2000: 239), the post-suburban region is marked, as many have argued, by deeply polycentric and variously more fragmented growth patterns spread across an increasingly splintered landscape of urban cores, inner suburbs, outer suburbs, in-between spaces, edge cities and exurbs, to name only a few common designators (Jonas, 2011; Phelps and Wu, 2011; Young and Keil, 2014). Within this shifting regional landscape, the site of the sub- and exurban growth node, often linked to premium network spaces such as railway hubs or airports (Graham, 2000), has taken on heightened strategic significance both for private profit interests and public planning requirements (Mettke, 2015; Addie, 2017). Drawn to the peripheral growth pole as one of its preferred sites of operation, the PPRP intensifies rather than diminishes dynamics of spatial unevenness and splintering urbanism.

Finally, the PPRP shines an illuminating spotlight on a growing number of empirically informed studies that have done much to render visible the geographically variegated and historically path-dependent nature of the Uber phenomenon in different cities and regions worldwide (Rekhviashvili and Sgibnev, 2018; Rosenblat, 2018; Arubayi, 2021; Lanamäki and Tuvikene, 2021; Del Nido, 2022; Gebrial, 2022; Wells *et al.*, 2023; Namberger, 2024). While helpfully grounding the high-flying tech-solutionist rhetoric of global ridehail companies in actual time and place (Shelton *et al.*, 2015), most of these studies, including my own, have paid little to no explicit attention to differences in urban form within their respective grounds of examination. Born from the fragmented growth dynamics of the post-suburban city region itself, the PPRP, by contrast, forces us immediately to acknowledge the inherent unevenness and structuring non-synchronicity of today’s North American city region (Keil and Addie, 2015). Crucially, sub- and exurban terrains offer widely different conditions of existence to ridehail platforms than, for instance, inner-city cores. One of the aims of this article, therefore, is to develop an analytical standpoint that is not only alert to the deeply fragmented, variously splintered and inherently uneven growth dynamics of today’s North American post-suburban city region but also takes into account the specific requirements, affordances and inherent limitations of what I want to call—more provisionally than conclusively—*peripheral platformization*.

How does the PPRP enable Uber and Lyft to elastically adapt to the partly ridehail-averse terrain of North American sub- and exurban space? And how, conversely, do local and regional transit agencies make use of PPRPs and integrate them into their broader public development and planning strategies? Driven by these questions, this article aims to render visible the PPRP as a variously contradictory and far from frictionless attempt to splice Uber and Lyft’s platform-based business models with the existing social and physical realities of North American post-suburban space (Phelps and Wu, 2011; Young *et al.*, 2011). While conceived as a strategic response to pressing sub- and exurban problems such as low physical densities (Filion, 2015), widespread car centrism (Walks, 2015) and extensive transit undersupply (Filion and Keil, 2016), the PPRP, I argue, is neither able to adequately address these dilemmas nor to ultimately

resolve them. Rather, as we shall see, the PPRP latches onto Powerful old dynamics of heightened uneven development and sets in motion powerful new ones (Smith, 2010) and continues urban entrepreneurialism (Harvey, 1989). These tendencies are prevalent, first, in the observable concentration of PPRPs at already existing premium network spaces such as regional rail stations and other transit hubs (Graham, 2000); and second, in the manifestation of PPRPs as infrastructural, fiscal and ‘smart’ state-spatial fixes in the context of post-pandemic urban austerity and tech-oriented inter-urban competition (McCann, 2013; Wiig, 2015; Fanelli and Whiteside, 2023).

The next two sections pursue this argument with a specific view to the varied motivations, incentives and promises that have propelled private ridehail companies and public transit agencies to enter into a substantial number of variously configured PPRP arrangements across the North American continent. I then deepen and empirically situate these more conceptual considerations in the context of two early ridehail partnerships in the GTHA: the above-mentioned Lyft–Metrolinx pilot and “Innisfil Transit”, a partnership between the exurban Ontarian municipality of Innisfil and Uber. A conclusion summarizes my findings and situates the PPRP phenomenon within the wider setting of post-suburban transport politics.

Private profits: on network effects and premium network spaces

The geographic expansion of Uber’s ridehail services from downtown districts to more peripheral urban terrains marks one of the strategic frontiers of extended Uberization. While the reality and racialized ideology of the ‘frontier’ has usually been linked, more specifically, to questions of land, property and gentrification (Smith, 1996; Korf and Raeymaekers, 2013; Haila, 2016; Wyly, 2022), Sandro Mezzadra and Brett Neilson (2013: 66–75; 2019: 22, 33–34) have recently readopted the term and connected it to a number of theoretical explorations concerning the multiple manifestations of what they call the new ‘frontiers of capital’. Similarly, as they write: ‘the “new urban frontier” is continually opening in diverse contexts ... prompted by the appropriation and expropriation of spaces, values, infrastructures, and forms of life that are submitted to capitalist valorization’ (*ibid.* 2017: 196). Subsuming a growing number of urban spaces and social forms under the imperatives of capitalist value extraction, today’s frontiers of capital are marked, then, both by ‘*extensive growth*’ and ‘*intensive reshaping*’ (*ibid.*, 2013: 67). It is this double movement of outward geographic expansion and inward social intensification that we also find, if in shifting guises, vis-à-vis the PPRP.

The examination below of the PPRP phenomenon adds to a more nuanced understanding of Mezzadra and Neilson’s notion of capital’s newly emerging frontiers in three distinct ways. First, it ties their more wide-reaching theoretical project to the fast-evolving nexus of platformization, tech urbanism and precarious gig work (Sadowski, 2020; Mattern, 2021; Altenried, 2022), while taking into account existing post-suburban landscapes and their structuring dynamics of sustained entrepreneurial governance, fragmentation and unevenness (Harvey, 1989; Graham and Marvin, 2001; Smith, 2010). Second, while Mezzadra and Neilson (2013: 66–75) develop their idea of capital’s new frontiers primarily with an eye to the global scale of the world market, the PPRP sheds light on dynamics of “‘intensive’ expansion’ (*ibid.*: 68) on a ‘lower’ urban to regional scale. Finally, and largely in line with Mezzadra and Neilson’s own explorations (2019: 94–132, 209–52), the subsequent analysis of the PPRP illuminates the widely underestimated enabling role of the state vis-à-vis capital’s current operations in general and digital platformization in particular (Namberger, 2024).

Within capital’s unending search for new fields of profitable investment (Harvey, 2017: 127–39), the strategic importance of Uber and Lyft’s recent sub- and exurban expansionism comes to the fore most clearly when set against the background of two key structuring conditions. On the one hand, ridehail companies endured sustained difficulties in becoming profitable in the first place (Diab, 2019: 146). While founded

in 2009 and initiating its stock market launch in 2019—with a market value that has oscillated between US \$30 and \$120 billion since then (CompaniesMarketCap, 2023)—it was only by mid-2023 that Uber could announce the first profitable quarter in its entire corporate history (Techloy, 2023). Similar observations apply to Lyft. Both corporations, therefore, have found themselves under considerable pressure to open up new avenues for profit of which the PPRP may only be one among many. From an urban perspective, on the other hand, it is suburban and other ‘peripheral’ spaces, rather than downtown areas, that are likely to mark the focal points of present and future urban growth (Herzog, 2015; Keil, 2015). ‘Under the conditions of current trends in technology, capital accumulation, land development and urban governance,’ as Roger Keil (2018: 9) puts it, ‘the expected global urbanization will necessarily be largely *suburbanization*’. As a consequence, suburban growth nodes, exurban ‘boom towns’ (Peck, 2011) and post-suburban premium network spaces (Graham, 2000) lend themselves as attractive anchor points for the expansion of Uber and Lyft’s services beyond downtown districts.

Importantly, however, peripheral urban zones create substantial barriers to the establishment of profitable market zones for ridehail companies. Consider, for instance, the following numbers from an extensive report that evaluates the impact of ridehailing in Toronto: for the time period between October 2016 and September 2018 Toronto’s inner-suburban districts of Etobicoke, North York and Scarborough *together* reached a combined average of close to 60,000 ridehail trips per day; Toronto’s much smaller downtown area *alone*, however, registers more than 90,000 (City of Toronto, 2019: 9). While Toronto’s suburban areas are certainly not out of reach for Uber and Lyft and, in fact, do attract a considerable number of ridehail trips across the region (Calderón and Miller, 2019: 748–49), it is fair to say that Uberization in Toronto has remained a downtown-centered operation, with suburbs drawing only a small share of overall activities.³ Even more importantly, it is in downtown, rather than in suburban, areas that ridehail travel patterns are most concentrated.⁴

The noticeable gap between downtown and suburban Uberization can largely be explained by one of the essential principles that lies at the heart of Uber and Lyft’s respective platform business models: their reliance on so-called network effects. Digital platforms, as Nick Srnicek (2017: 45) explains, ‘produce and are reliant on “network effects”: the more numerous the users who use a platform, the more valuable that platform becomes for everyone else’. In the case of ridehail platforms, the logic of network effects means that the platform with the most drivers (the latter often incentivized by early bonuses and giveaways) can offer the shortest wait times for its customers and, as such, a higher degree of convenience (Woodcock and Graham, 2020: 45, 48). As a consequence, even more riders might start to use the platform, thereby increasing the demand for additional drivers and setting in motion what Uber (2019: 8) calls a ‘liquidity network effect’: a virtuous cycle of constant platform growth and—optimally—virtual market monopolization. It is this dependence on network effects that helps to explain Uber and Lyft’s ‘natural’ attraction towards busy downtown districts where the sheer density of everyday urban life translates into an overflowing demand for mobility that, despite the relative abundance of inner-city public transit, tends to exceed supply.

Conversely, the dispersed, low-density built environment of many North American suburbs (Filion, 2015) makes it difficult for Uber and Lyft to get the network-effect flywheel going in peripheral areas (Livingston Shurna and Schwieterman, 2020: 13). In a document filed with the US Security and Exchange Commission, Uber (2019: 93) itself admits that it has faced ‘challenges increasing penetration in existing markets, including suburban and

3 For more in-depth assessments of local balances between *downtown* and *suburban* ridehail usages on the basis of quantitative inquiries, see Calderón and Miller (2019) and Young *et al.* (2020) for the case of the GTHA and Gehrke (2020) for the case of Washington, DC.

4 See, for instance, the instructive maps in Young *et al.* (2020: 4), which represent the concentration of ridehail activities in Toronto’s downtown core quite illustratively.

rural areas where our network is smaller and less liquid'. The geographic dispersion of traffic flows across sprawling suburban landscapes is difficult to square, in short, with the deeply centralizing logic of the platform and its reliance on network effects.

It is at this point that partnerships with local transit agencies emerge as a crucial instrument to enable Uber and Lyft to establish their services in the challenging terrain of dispersed post-suburban settlements. Network effects do not necessarily have to spring, as is usually the case in downtown areas, from Uber or Lyft's competitive advantages over local taxi companies or public transit offerings. Network effects—and, in their most extreme form, quasi-monopolies—can also be created on the basis of legal means: by way of the state-guaranteed right to provide exclusive ridehailing services at a particularly busy rail station or other premium network spaces such as shopping malls, universities or airports (Graham, 2000). While PPRPs have also taken place in downtown areas (Schwieterman *et al.*, 2018), it is in the suburbs that they are of particular strategic importance for ridehail companies. They allow Uber and Lyft to maintain network effects in the 'hostile environment' of suburban dispersion.

Overall, it is possible to distinguish three types of PPRPs—each with their own strategic path towards network effects. First, *area-based PPRPs* restrict local ridehail operations to a geo-fenced zone in which services can be used at a discounted rate subject to the contractual specifics of the partnership.⁵ From Uber and Lyft's angle, area restrictions help to keep dispersion effects in check and, at the same time, attain some degree of territorial centralization. With *hub-based PPRPs*, meanwhile, only trips to or from specific locales are discounted.⁶ These sites can range from places of local community life (such as town halls, universities or recreation centers), via nodes of private enterprise (malls or employment zones) to, perhaps most importantly, urban and regional transportation hubs such as train stations and airports (Schwieterman *et al.*, 2018; City of Toronto, 2019). What unites all of these premium network spaces is their concentration of everyday urban activities and, as a consequence, a stable demand for transportation. Hub spaces, in short, promise a level of daily passenger throughput that is hard, if not impossible, to gain anywhere else in the suburbs and, consequently, hold high(er) potentials for the creation of network effects. As I will show below, it is major suburban rail and transit stations, preferably located in close proximity to local or regional growth nodes, that Uber and Lyft have targeted by choice in the GTHA.

Finally, *app-based PPRPs* provide yet another way for Uber and Lyft to generate network effects. In this case, the bundling of transportation activities does not take place in the urban-geographic 'outside' but rather in the digital 'inside' of Uber and Lyft's respective apps (Van Dijck *et al.*, 2018: 75–80). Hence, it is one of the long-term strategies of Uber to integrate into its platform both the mobility services of private competitors and public transit offerings. The idea, in short, is to position Uber's platform as a central gateway within a broader public and private network of Mobility as a Service (MaaS). Relative to area-based and hub-based PPRPs, app-based PPRPs can be seen as the most advanced partnership type as they come closest to the ultimate aim of mobility platforms: to become the single digital node—the obligatory passage point, to borrow a concept from Michel Callon (1984)—that unites all other modes of transportation in one app, making it the central digital connector in a broader, potentially fully platform-based transportation 'ecosystem' (Van Dijck *et al.*, 2018: 77).⁷ In reality, as we shall see below,

5 Prominent examples of this type of PPRP are partnerships between Uber and Lyft and local transit authorities in Monrovia, CA, Dublin, CA and the five communities of Altamonte Springs, Lake Mary, Longwood, Maitland and Sanford in Florida (Schwieterman *et al.*, 2018: 4).

6 Examples of hub-based PPRPs include Sacramento, CA, Centennial, CO, Charlotte, NC and Philadelphia, PA (Schwieterman *et al.*, 2018).

7 In October 2015, for instance, Dallas's regional transit agency, Dallas Area Rapid Transit, added Lyft to its 'GoPass' transit app and made Lyft's platform an official part of its app (for further examples, see Schwieterman *et al.*, 2018: 5–6). Conversely, there have also been instances in which ridehail companies have started to integrate public transit services into *their* apps (Uber, 2021).

area-based, hub-based and app-based PPRPs can well occur in various combinations of these three ideal-type characterizations.

This section has foregrounded the PPRP as the concerted, yet deeply contradictory attempt to resolve the inner tension between ridehail platform's inherent logic of *centralization* on the one hand (Srnicsek, 2017) and post-suburban space's deeply *decentralizing* tendencies on the other (Filion, 2015). By mitigating the decentralizing effects of dispersed suburban settlement and transportation patterns, area-based, hub-based and app-based PPRPs serve as legal-political instruments for Uber and Lyft to strategically capture those premium network spaces that promise sufficiently high passenger throughput for the creation of network effects. Less prospering sub- and exurban areas, on the other hand, are likely to miss out on such newly emerging infrastructure opportunities, as they neither provide sufficiently high concentrations of activities nor a clientele prosperous enough to use Uber on a regular basis. As Stephen Graham (2000: 187) noted in this journal more than two decades ago, 'private capital has tended only to be attracted by the low-risk elements of infrastructure networks that can be "splintered" off from the whole and directly managed for private profit'. Very much in this vein, PPRPs are likely to enhance existing patterns of spatial unevenness (Smith, 2010) and infrastructural splintering, fueling and accelerating existing trends of infrastructural 'cherry picking' through private providers (Graham and Marvin, 2001: 236, 242).

Public planning: on the PPRP as state-spatial fix

What, then, motivates local governments and transit agencies to enter into partnerships with Uber and Lyft? First, as an *infrastructural state-spatial fix*, the PPRP is of interest to local governments in its potential to address acute difficulties in the provision of suburban transit (Burchell *et al.*, 2005; Mees, 2010; Addie, 2016: 274). Drawing attention to the manifest disjuncture between the growing demand *for* and the stagnating (or sometimes even declining) supply *of* public transportation in suburban areas, Pierre Filion and Roger Keil (2016: 11) have identified what they call a distinctively suburban infrastructure gap. It is, as they argue, in the urban 'peripheries'—in the suburban, exurban and newly emerging in-between zones (Young *et al.*, 2011)—that pressures on local governments to come up with new, 'innovative', flexible and cost-saving infrastructure solutions are particularly high.

Within the context of widening suburban infrastructure gaps, the problem of the so-called first and last mile (FMLM) stands out as a particularly acute challenge (Altenried, 2019; Pollio *et al.*, 2023). The FMLM leg severely limits the reach and convenience of public transport in suburban areas, as passengers need to rely on their own means of transport, usually private cars, to close 'the gap between origins/destinations (such as home, work) and public transit' (Miller, 2019: 1135). As a response to the FMLM problem, PPRPs promise to reduce individual car trips between suburban transit hubs on the one hand and nearby residential or employment areas on the other. As such, PPRPs are of substantial interest to local governments aiming to reduce individual car traffic and the heightened levels of congestion, pollution as well as the need for parking capacities that result from it. To this end, PPRPs usually rely on Uber and Lyft's respective UberPOOL and Lyft Line ridehail options. In contrast to their ridehail core products, which offer individual rides for single persons and groups, Uber and Lyft's pooling options allow customers headed in similar directions to share their trips. Their algorithms calculate the most efficient route between all relevant departure and destination points, sometimes requesting riders to take a short walk to more suitable pick-up sites (Van Dijck *et al.*, 2018: 79).

PPRPs addressing the notoriously complex first and last mile legs have been a core focus of much testing by transport planning departments across North American cities (Shaheen and Chan, 2016; Livingston Shurna and Schwieterman, 2020). The allure

of the PPRP as an infrastructural state-spatial fix in general and a potential FMLM solution, in particular, consists of first, the reduction of individual car traffic (with all the detrimental effects linked to it) and, second, the promise of extended reach and improved performance of public transit infrastructure in the challenging terrain of suburban dispersion. However, as I will explore with respect to Uber's partnership in Innisfil, PPRPs can also directly compete with public transit systems, most of all, buses. What is more, PPRPs depend on the built environment of a past and present-day system of automobility (Urry, 2004) and, as such, risk prolonging the 'lock-in' effects of car-oriented cityscapes into the far more distant future (Hughes, [1987] 2012: 72).

A second reason for the attractiveness of PPRPs to local governments springs from the potential of such schemes to function as *fiscal state-spatial fixes* in the wake of widespread post-crisis as well as post-pandemic urban austerity (Donald *et al.*, 2014; Albo and Fanelli, 2019). The promise of labor cost reductions plays an important role here. Unlike their Uber-driver 'counterparts', public transport workers usually enjoy the benefits of unionization, paid sick leave, pension funds, guaranteed hourly wages and similar basic labor rights (Sweeney and Treat, 2020: 220–1). By contrast, Uber drivers have been legally classified, in most North American jurisdictions, as self-employed independent contractors ineligible for such entitlements (Rosenblat, 2018: 4). The classificatory gap between these two labor forces, therefore, opens up possibilities for (more or less) drastic savings in public labor costs. To provide an illustrative example from the context I am most familiar with—in the case of Toronto's public transport agency, the Toronto Transit Commission (TTC), the difference in average hourly wages (not to mention further benefit payments) between a TTC bus driver and an Uber-driver gig worker is indicative of the potential costsavings that may be gained through any major transition from a publicly provided transit service to a state-subsidized PPRP arrangement. While a TTC bus driver's guaranteed minimum hourly wage starts at CAN \$27 (Spurr, 2020), Uber drivers are paid at piece rate and may average—under fortunate circumstances—around the Ontarian minimum wage of CAN \$16.55 (Government of Ontario, 2024).⁸ As already indicated above, the PPRP-as-fiscal-fix functions very much along the lines of what Loxley (2012: 28) calls service-type PPPs, where 'the government retains ownership of assets but hands over the operating budget to a private company and shares any savings. Since "savings" usually means reduction in wages, this type of PPP represents a serious threat to organized labour'.

Finally, PPRPs can be harnessed by local governments as *speculative state-spatial fixes* (Hall and Jonas, 2014) often taking the form of a now widespread 'smart' policy boosterism (McCann, 2013; Wiig, 2015). In this function, PPRPs can function as extrospective place-making instruments that enhance the territorial attractiveness, real or perceived, of a specific locale in the global context of accelerating 'smart' inter-urban competition and an ensuing hunt for local tech-sector investment and 'talent' attraction (Sadowski and Bendor, 2019; Shearmur and Wachsmuth, 2019; Alvarez León and Rosen, 2020). Partly independent of its actual performance as transport infrastructure, the PPRP-as-smart-speculative-fix leverages the fact that Uber and Lyft not only transport passengers, but also convey a business-friendly outward image of innovation, entrepreneurialism and technological progress (Rosenblat, 2018: 205). This politics of outward image creation is one of the main reasons why the mayors of many North American cities have often been extremely welcoming to Uber, despite the company's aggressive behavior towards local regulators. However, overreliance on the image function of PPRPs also brings with it the risk of partnerships degenerating into

8 This, it should be noted, is rather a generous estimate. While average wages of Uber drivers are hard to estimate (Rosenblat, 2018: 45–6), an extensive study in the US carried out in late 2015 estimated that, after expenses, Uber drivers may take home hourly wages that, depending on the region, average around US \$11 (*ibid.*: 61). A more recent study relying on survey data from more than 1,000 drivers in the US, concluded that the average hourly income of drivers was only at US \$ 3.37 (Zoeplf *et al.*, 2018).

(more or less) drastic cases of what Eugene McCann (2013) calls ‘extrospective policy boosterism’ in which positive outward perception trumps on-the-ground infrastructural benefits (Harvey, 1989: 16). This, as I discuss below, is one of the things that happened in the case of Innisfil Transit.

This section has identified three ways in which PPRPs can be of interest to local and regional governments and transit agencies. As an infrastructural fix, the PPRP can help to close, or at least narrow, existing suburban infrastructure gaps, not least with regard to the problem of the first and last mile (Filion and Keil, 2016; Miller, 2019). Next, the PPRP-as-fiscal-fix promises to remedy municipal fiscal imbalances through a lowering of labor standards in local transportation affected by the partial replacement of public transport workers with ridehail gig workers (Loxley, 2012; Sweeney and Treat, 2020). As ‘smart’ speculative fixes, meanwhile, PPRPs offer themselves as a way to boost the outward perception of a locale in the context of intensifying interurban competition for local tech-sector investment (Sadowski and Bendor, 2019; Alvarez León and Rosen, 2020).

Early PPRPs in Toronto and the GTHA

Building on the above insights, this section zooms in on two recent PPRPs in the GTHA: the Lyft-Metrolinx pilot and Innisfil Transit, an ongoing partnership between Uber and the small exurban town of Innisfil, located north of downtown Toronto (see Figure 2). These two partnerships share important similarities *with*, yet also differ significantly *from* other ridehail partnerships in North America and the US (Schwieterman *et al.*, 2018; Livingston Shurna and Schwieterman, 2020). The Lyft-Metrolinx pilot, for one thing, showcases a common double aim of, first, improving general connectivity between private ridehailing and public transit and, second, alleviating parking shortages at highly frequented strategic sites such as transit hubs (Schwieterman *et al.*, 2018: 3). Next to other comparable programs such as Detroit’s off-peak partnership with Lyft in the district of Woodward (Curbed, 2018) or Monrovia, CA’s town-wide partnering with the same company for subsidized ridehail trips within its boundaries of only US \$0.50 (GoMonrovia, 2023), the Lyft-Metrolinx pilot shares important features with, *inter alia*, the case of Summit, NJ, a suburb of New York City, where public officials have partnered with both Uber and Lyft in order to offer US \$2 weekday rides to and from its local transit station, thereby forestalling the need for a new parking lot (City of Summit, 2023).⁹ What partly distinguishes the Lyft-Metrolinx pilot from these programs, however, and makes it a particularly interesting case for my purposes, is its strong relation, discussed below, to wider regional growth agendas and infrastructure investment strategies in the GTHA at large (Addie, 2017).¹⁰

Located about 80 km north of downtown Toronto, the town of Innisfil’s prominent partnership with Uber is to some extent even more exceptional in nature. Innisfil, a rural municipality of about 37,000 inhabitants, differs from many other partnership locations, such as Monrovia, CA and Summit, NJ that are situated at least in *suburban* proximity to greater conurbations, in terms of its fully *exurban* character (Ruggles, 2020). This, as I will examine in more detail shortly, has led to pronounced infrastructural problems for the partnership, while its function as a ‘smart’ promotional vehicle for the town of Innisfil has remained widely intact.

The following discussions are based on ethnographic research conducted during two field stays in Toronto and the GTHA in 2018 and 2019. The fieldwork conducted

9 For other comparable programs, see the table in Schwieterman *et al.* (2018: 3) and, in particular, the partnerships listed under program types one (encouragement of TNC/transit connections) and three (parking shortages).

10 To what extent such a link between ridehail partnerships and broader infrastructural investments also exists in other North American cases is beyond the scope of this article. I hope that other critical scholars might take up the opportunity to investigate this nexus in regions other than the GTHA soon.



FIGURE 2 An overview of the geographic locations within the GTHA of the Lyft-Metrolinx pilot and Uber's Innisfil Transit partnership. The former involved Metrolinx's four rail stations, Oakville, Bramalea, Exhibition and Unionville (polygon symbols); the latter is located at the small town of Innisfil (triangle symbol) (*sources: as shown on map*)

comprised participant observations, semi-structured (expert) interviews and qualitative content analyses. Participant observations were conducted, *inter alia*, at meetings of the City of Toronto's Interdivisional Working Group on Automated Vehicles (City of Toronto, 2023) that I was allowed to sit in on, where I met some of my later interviewees. Second, I conducted 20 semi-structured interviews with various experts and stakeholders engaged with the Uber phenomenon in the GTHA. Overall, I interviewed four taxi drivers, seven local or regional (transportation) planners, five city staff members, one city councilor and two local scholars. In addition, I conducted more than 20 'flash interviews' with ridehail drivers during trips booked via Uber and Lyft's respective apps (Rosenblat, 2018: 210–11).¹¹ Finally, I undertook qualitative content

11 Importantly and unfortunately, none of the interviewed ridehail drivers were participants in the examined PPRPs. Rather, these driver interviews were conceived as mainly feeding into other parts of my research.

analyses (Mayring, 2004) of text documents and online material. This included local and national media coverage of Uber, press releases by Uber itself as well as official planning documents by the City of Toronto and the Province of Ontario.

– The Lyft-Metrolinx pilot

After a prolonged phase of infrastructural disinvestment in Ontario, it was Dalton McGuinty's Liberal provincial government (2003–13) and its momentous 'Places to Grow' legislation that gave a decisive push to infrastructural investments in the GTHA (Addie, 2017: 125–6). Sanctioned between 2005 and 2006 and reacting to unabating growth pressures in the Toronto region, Places to Grow identified 23 urban growth nodes located across the GTHA. In 2006, as part of Places to Grow, the McGuinty government founded the provincial transit agency Metrolinx and provided it with a mandate to develop the transport infrastructure needed to support the growth patterns identified by Places to Grow. This mandate resulted in the preparation of the influential 'The Big Move' regional transportation plan (Metrolinx, 2008) and its recent update (Metrolinx, 2018a). Since the Big Move, Metrolinx has not only been concerned with the increasing integration of the GTHA's transportation network in general, but also with the expansion of its region-wide GO Bus and GO Rail systems in particular (Young and Keil, 2014: 1601; Mettke, 2015: 135–6).

In 2015, Metrolinx started its ambitious GO Expansion program (then still referred to as the 'GO Regional Express Rail' or 'GO RER' program). Its main goal was the intensification of rail services across Metrolinx's GO Rail network, transforming it from a basic commuter rail service (with trains available only during morning and evening peak hours) to a comprehensive two-way, all-day service aimed at a minimum frequency of one train per fifteen minutes across large sections of the entire network (Metrolinx, 2015; 2018b: vii). These expansionary measures were based on forecasts that predicted rail ridership would 'more than double from an average of close to 100,000 daily weekday riders in 2016 to 225,000–250,000 weekday riders in 2031 (Metrolinx, 2016: 12). Crucially, with almost two-thirds of current customers using their private cars to access Metrolinx's rail stations (*ibid.*: 13), the predicted growth rates far exceeded existing parking capacities at many of Metrolinx's stations. As one of Metrolinx's central documents framed the dilemma: 'If current station access patterns remain unchanged into 2031, GO rail stations would need approximately 75,000 to 80,000 additional parking spaces ... These levels of parking expansion would be financially unsustainable ... and would significantly limit the ability to achieve provincial intensification targets around GO stations' (*ibid.*). Limited parking capacities at highly frequented stations, in short, posed a major threat to the feasibility of the GO rail expansion program and, as a consequence, to the Places to Grow agenda tout court.

It was at this point that the Lyft-Metrolinx pilot came into play. As indicated above, the pilot took place between July and December 2019 and used Lyft's ridehail services as an on-demand first-and-last-mile feeder for the four regional rail stations of Exhibition, Oakville, Unionville and Bramalea (Lyft, 2019; Metrolinx, 2019). The scheme came at no direct cost to Metrolinx, as the agency 'only' provided promotional support for the Silicon Valley company, both on its webpage and at its stations (see Figure 3). The Lyft-Metrolinx pilot offered Lyft customers a CAN \$4 discount for each of their next five rides to or from the four stations, all of which were fitted with designated Lyft signage (see Figure 4). In fact, the pilot can largely be seen as an attempt to test the potential of PPRPs to alleviate parking shortages caused by higher-order investment in regional rail infrastructure. While not referring to the Lyft pilot as such, a Metrolinx planner foregrounds the promising potential of ridehail partnerships to ease shortages of local parking capacity: 'If some of them [rail passengers] could carpool, we're creating a lot more capacity without spending a dollar ... If we can get twice as many people to carpool to our station, instead of just driving, all of a sudden we've added a few thousand



FIGURE 3 An advertisement for the Lyft-Metrolinx pilot at the Exhibition station in downtown Toronto (photo by the author, October 2019)

parking spaces. A few thousand new customers that wouldn't otherwise be able to get there' (interview with Metrolinx planner, 5 November 2018). From the perspective of Metrolinx, the pilot was a viable way to test Lyft's ridehailing services as a potential solution to mounting capacity problems at particularly busy rail stations.

While the Lyft-Metrolinx pilot, and more long-term PPRPs that may follow in its wake, may serve as a potential solution to growth pressures stemming from parking shortages (or similar peak-capacity problems), they also lay bare one of the key limits of such arrangements: their likely occurrence at transit stations and hubs that already concentrate public and private infrastructural investment, economic growth and, often as a result of these two, high population influx. Notably, all of the four stations involved in the Lyft-Metrolinx pilot are congruent with, or immediately adjacent to, major growth poles identified in the Places to Grow plan. First, Exhibition Station, the only inner-city station involved in the pilot, is located in Toronto's west end and lies in immediate proximity to Liberty Village—a heavily gentrified 'creative district' with growing employment opportunities in Toronto's booming tech industry and other high-value service sectors (Catungal *et al.*, 2009). Expected to grow its transit capacities from little more than 1,000 daily rail passengers in 2016 to up to almost 10,000 expected passengers in 2031 (Metrolinx, 2016: 58), Exhibition station, which provides no parking spaces at all, not only faces high growth pressures, but is also likely to attract the sort of young, professional clientele that forms ridehailing's main customer base. Similarly, the three outer-suburban stations, Oakville, Bramalea and Unionville, are all expected to attract heavy growth in passenger throughput over the coming decade, with predicted ridership increases of over 80% at Bramalea and Unionville and between 40 and 80% at Oakville (Metrolinx, 2018b: xvi). What connects all of the four stations, then, is their



FIGURE 4 A Lyft signpost at Bramalea GO Station, which directs passengers to a designated pick-up/drop-off zone at the station's parking lot (photo by the author, October 2019)

centrality to the nodal growth development of Places to Grow and, much in line with the latter, the GO Rail Expansion program.

The Lyft-Metrolinx pilot demonstrates the ‘winner-takes-all’ approach laid out above. In their search for network effects, Uber and Lyft are attracted by areas and hubs that already experience heavy urban growth and infrastructural investment. From the viewpoint of public authorities, on the other hand, it is exactly those hotspots of growth where capacity limits create the need for PPRPs as short-term infrastructural fixes. Graham (2000: 187) once remarked that ‘with the privatization and vertical disintegration of state infrastructure monopolies since the 1970s, private capital has tended only to be attracted by the low-risk elements of infrastructure networks that can be ... directly managed for private profit’. Very much in this sense, the Lyft-Metrolinx pilot—and with it the PPRP as a new form of transport infrastructure in general—is indicative of a logic that is likely to intensify existing, and even create new, patterns of uneven development and splintering urbanism.

– Uber in Innisfil

At first sight, Innisfil—a semi-rural exurban town located 80 km north of Toronto and counting some 37,000 inhabitants (Innisfil, 2017a)—appears as the exact opposite of the more bristling urban and suburban transit hubs that formed part of the Lyft-Metrolinx pilot (Ruggles, 2020). Nevertheless, there are a number of connections between the Lyft-Metrolinx and the Innisfil-Uber PPRPs. Not only is Innisfil located in immediate proximity to the town of Barrie that forms one of the 23 growth poles identified in Places to Grow; it also forms part of Metrolinx’s GO Rail Expansion plan, which foresees the construction of a regional rail station there. Partly as a consequence of these twin expansionary programs,

Innisfil is expected to grow from 37,000 inhabitants in 2016 to a prospective 60,000 by 2031 (Innisfil, 2017a). As in the Lyft-Metrolinx pilot, then, growth pressures have created an acute need for investment in local transport infrastructure.

Confronted with this challenge, Innisfil officials considered two basic options: the first was a fixed-route bus system. The latter was calculated to come at a prospective annual operational cost of CAN \$270,000 (for one bus line) or \$610,000 (for two lines). However, officials feared a fixed-route bus system would be unable to serve the mobility needs of an adequate number of citizens across Innisfil's dispersed settlement areas and employment zones (Innisfil, 2017c: 1; 2020: 7). 'Traditional bus transit,' as an early official document put it, 'has been ruled out at this time in order to avoid a challenging financial path with limited service potential' (Innisfil, 2017b: n.p.). Hence, the installation of a more flexible, on-demand ridehail system was considered as a second option. In fact, local officials considered ridehailing a more effective and inexpensive alternative to the bus; one that would not only allow the town to avoid acquisition and maintenance costs for buses and infrastructure such as bus shelters, but also to proceed by way of a more incremental and flexible planning scheme in which partnerships with private ridehail companies could be recurrently evaluated and amended on a year-to-year basis (Innisfil, 2017b). In short, the initial case for a ridehail partnership was one of lower anticipated costs linked to higher expected transport efficiencies as well as heightened planning flexibility.

In May 2017, Innisfil launched the 'Innisfil Transit' PPRP: a publicly subsidized, on-demand ridehail scheme fully provided by Uber (Cecco, 2019). The parameters of the program ran as follows: while trips to a number of key local sites—such as Innisfil's town hall, the town community center (see Figure 5), its library and the nearby rail station at the town of Barrie—came at fixed rates of between CAN \$3 and \$5 (depending on the site), all other trips within the town's boundaries were subsidized by the municipality through a general CAN \$5 discount (Innisfil, 2017b). User access to Innisfil Transit was granted through Uber's platform that automatically recognized customers opening the Uber app from within the town's boundaries. A combination of hub-based, area-based and app-based PPRP, Innisfil Transit became hugely popular within its first two years of operation. After eight months, in December 2017, Innisfil Transit had reached more than 5,000 trips per month. From there, numbers kept rising, with an average of more than 7,000 trips per month in 2018 and over 8,500 in early 2019 (Innisfil, 2020: 3).

However, the program's success also caused severe problems. With growing ridership, subsidy costs exploded. From CAN \$150,000 in its first eight months of operation, Innisfil Transit cost the town more than \$640,000 in the full year of 2018 and almost \$850,000 in 2019—more than the originally projected cost of a two-line bus system (Innisfil, 2020: 3). What these numbers reveal, in short, is a problem that no ridehail algorithm is likely to solve very soon, as its ultimate source lies in the material makeup of a privatized 'transit' system whose basic spatial unit remains the twentieth-century car capsule with its strictly limited passenger capacity. This capacity limit basically fixes the per-capita cost of Innisfil Transit and, as a result, locks the program into a spiral of directly proportional cost explosion. Simply put: the more trips Innisfil's citizens took, the more the city had to pay in subsidies (Mees, 2010: 82–3; Bliss, 2019). In April 2019, town officials reacted and amended some of the PPRP's key parameters. Fixed fares to all key destinations (formerly ranging between CAN \$3 and \$5) were hiked by CAN \$1, while subsidies for all other trips were reduced from CAN \$5 to \$4. Most importantly, however, a strict monthly cap of 30 rides per user was introduced (Innisfil, 2020: 2). As a result, monthly trips declined from an all-time high of about 10,000 trips in March 2019 to about 8,400 trips per month during the rest of the year (Innisfil, 2020).¹² At the same time, the new specifications meant that the Innisfil citizens

12 Average trip numbers plummeted even further in March 2020, when the Covid-19 pandemic reached Ontario and put a temporary halt to Innisfil's problem of escalating subsidy costs (Innisfil, 2020).



FIGURE 5 The Innisfil Recreational Complex forms one of Innisfil Transit’s local sites that guarantees a fixed fare of CAN \$4 (\$3 at the start of the partnership) (photo by the author, December 2018)

who relied on the program most heavily—using Uber, for instance, to commute to work on weekdays—ran out of ride credits halfway through the month (Bliss, 2019; Cecco, 2019). Not only had the costs for Innisfil Transit exploded, but the scheme had also undermined its initial key promise of on-demand, round-the-clock availability for Innisfil’s ‘transit’ users. In place of a fixed-route bus system’s *spatial* inflexibility, Innisfil Transit imposed a system of strict *numerical* rigidity: 30 trips per month.

Measured against the case that local planners initially made for the PPRP, it is notable that only one of the three main promises could withstand the test of three years of real-world implementation. Not only did costs escalate to a level equivalent to, or even higher than, what was projected for a two-line bus system, but the supposed superiority of an ‘Uberized’ transit system in terms of higher transport efficiency and flexibility largely vanished under the imposed monthly cap. It is only in terms of planning flexibility that Innisfil Transit retained an advantage over a ‘traditional’ bus transit solution, as the arrangement continues to allow the town to circumvent upfront investments in infrastructure and helps to retain a short-term, year-on-year planning model that can be more easily adapted to the vagaries of potential financial cutbacks or falling demand as during the Covid-19 pandemic (Sweeney and Treat, 2020).

Despite the emerging problems of Innisfil Transit, town officials remained outspokenly positive about the project. Even after the overhaul of the program in 2019, an official document stated that the town’s staff was ‘very satisfied with the results of Innisfil Transit and looks forward to its continued implementation’ (Innisfil, 2020: 8). What this statement suggests is that town officials’ unabated support for the PPRP may have less to do with the program’s real-world infrastructural performance than its potential to showcase Innisfil as an ideal site for further ‘smart’ public and private

investment. Partly independent of its performance as an actually existing transport infrastructure *inside* of Innisfil, a key aspect of the Uber-Innisfil PPRP has been the ‘smart’ image that the town can project to the *outside* world. In fact, it is hard to escape the impression that Innisfil Transit is linked to broader ambitions among Innisfil’s local political elites to be perceived as pioneering exurban trendsetters in the implementation of ‘innovative’ urban solutions and the adoption of ‘smart’ technologies (Sadowski and Bendor, 2019). In line with such observations, one of the town’s early official documents characterized the town’s incentive to enter into the PPRP as follows:

Uber and the Town share a common desire to be ‘disruptive’ and to innovate in order to improve traditional services and solve traditional challenges ... A partnership with Uber positions the Town as a national leader in adopting an approach that is proactive, flexible, innovative and collaborative to ensure that the benefits of shared mobility and technological advancements are secured for Innisfil residents (Innisfil, 2017b: n.p.).

Similarly, some of Innisfil’s town officials have been very outspoken in endeavoring to attain the highest possible attention for their partnership—and for the (ex-)urban ‘trademark’ of Innisfil itself: ‘Town Staff have ... spoken at several conferences and events regarding Innisfil Transit and this has been helpful in networking and promoting Innisfil’s brand on a regional, national and international scale’ (Innisfil, 2020: n.p.). Notably, such speaking engagements were sometimes even supported by Uber’s private sponsorship for conference fees, travel and accommodation costs (*ibid.*). As a result of the Innisfil Transit PPRP, the small town was not only able to attract an unprecedented level of national and international media coverage (Cecco, 2019; Vincent, 2019; Innisfil, 2020: 8), but it has also become a recurrent addressee of outreach from other municipalities, planning institutions, NGOs, lobby groups and investment groups (Innisfil, 2020; Interview with Innisfil planner, December 2018). In light of these activities, and the rather ostentatious way they have been showcased, it is hard to avoid the impression that the implementation of Innisfil Transit had as much to do with Uber’s shiny image as a globally renowned tech company as with the real and pressing transport needs of Innisfil’s community.

This impression is supported by more recent developments, for the Innisfil Transit experiment has turned out to be only one element in the town’s broader and even more ambitious ‘smart-city’ investment strategy (Vincent, 2019). Central to such plans is, once more, Metrolinx’s GO Expansion program and the prospective creation of a regional rail station in Innisfil that would bring the town closer to downtown Toronto. In a futuristic planning vision, circulated under the name of ‘The Orbit: Innisfil Rural Re-Imagined,’ the new rail station is shown becoming the geographic center point of a broader development that hopes to transform Innisfil from the semi-rural, scattered exurban town it is to a bristling ‘digital and connected community’ (Partisans, 2019: 7). Such transformations, as the policy document emphasizes, are foreseen as going along with staggering rates of population growth, boosting Innisfil’s population—in only a first growth phase—from 37,000 to about 60,000 inhabitants and later to an ultimate, if rather farfetched, total of 200,000 inhabitants (Partisans, 2019: 14–15). Reminiscent of what Jamie Peck (2011: 892) has called the neoliberal ‘technoburb’, the Innisfil Re-Imagined vision articulates such ambitions in the context of tech-driven ‘smart’ (sub)urbanism. Innisfil Re-Imagined, as its vision blueprint explains, is to be based on ‘technology, new tech agriculture, advanced manufacturing, artificial intelligence, combined with a vibrant “start-up” energy and culture’ (Partisans, 2019: 7). Whether the Orbit vision is ever realized—and, if so, under what circumstances—remains to be seen, especially given that local political resistance has started to increase (Javed, 2020). Yet

even in its unrealized form, Innisfil's Orbit vision casts clearer light on the strongly tech-boosterist tendencies that have already surfaced in connection with Innisfil Transit.

What the Innisfil Transit experiment brings to the fore, in a quasi-paradigmatic fashion, is the almost indissoluble connection between local PPRP trials on the one hand and strategies of tech-centered urban growth on the other (Sadowski and Bendor, 2019). Clearly, the Innisfil Transit experiment has been driven by motivations that do not necessarily have to do with the actual mobility needs of local communities but more with the ambitions of local political elites to make the small town of Innisfil an exurban trademark for tech solutionism and, as such, an apposite site for further 'smart' investment by global tech capital (Hollands, 2015).

Such ambitions are widespread in the current PPRP trend. While a comparison with PPRPs in other North American cities is beyond the scope of this article, broader empirical investigations suggest that similar dynamics of extrospective policy boosterism (McCann, 2013) have played a prominent role in numerous early PPRPs (Curtis *et al.*, 2019: 68; Livingston Shurna and Schwieterman, 2020: 10). It can be expected, then, that strategies of economic investment, talent attraction and the creation of a tech-friendly outward image are far from a standalone feature of the Innisfil Transit PPRP, but will continue to inform other PPRPs across North America and beyond.

Conclusion: Uberization itself and urbanization tout court

Over the last decade, partnerships between Silicon Valley ridehail companies and local and regional transit agencies in North America have proliferated rapidly (Shaheen and Chan, 2016; Schwieterman *et al.*, 2018; Livingston Shurna and Schwieterman, 2020). This article has accounted for this trend by presenting the concept of the public-private ridehail partnership, including a typological differentiation of the latter into hub-based, area-based and app-based PPRPs. Mostly found in the outer-suburban and exurban areas of North American city regions, the PPRP has emerged as an elastic, yet deeply contradictory institutional link between Uber and Lyft's expansionary business strategies on the one hand and the mounting planning dilemmas of public transport agencies in the context of fragmented post-suburban growth dynamics on the other (Phelps and Wu, 2011; Young *et al.*, 2011). Rather than resolving pressing post-suburban transport problems such as low physical densities (Filion, 2015), widespread car centrism (Walks, 2015) and extensive transit undersupply (Filion and Keil, 2016), the PPRP has, I have argued, created new and powerful dynamics of uneven spatial development (Smith, 2010) and heightened urban entrepreneurialism (Harvey, 1989). While, as discussed with respect to the case of the Lyft-MetroInx pilot, the PPRP's proneness to spatial unevenness gives rise to its noticeable concentration at regional transit hubs and other premium network spaces (Graham, 2000), urban-entrepreneurial tendencies make themselves felt in transit agencies' use of PPRPs as state-spatial fixes and, as explored through the case of Innisfil Transit, as harbingers of an extrospective 'smart' policy boosterism (McCann, 2013; Wiig, 2015).

I take it as one of the central outcomes of the above analysis that the fast-paced rhythms of present-day Uberization can be isolated from longer cycles of capitalist urban development only at the risk of a stifling de-historization of the Uber phenomenon itself. By way of example: when Smith (1996), almost three decades ago, wrote about a 'new urban frontier' of *outside-in gentrification*, what he had in mind were North American downtown districts such as New York City's Lower East Side where rents had been exploding since the 1970s, causing drastic shifts in the composition of local populations (from diverse, majority-Hispanic to mostly white), cultural offerings (from self-owned corner shops to artsy galleries) and entire built environments (from dilapidated factories to fancy lofts). Not atypical of neoliberal urbanism cyclically feeding off its own structural shortcomings (Brenner *et al.*, 2010), it was exactly those now heavily gentrified, densely populated, and 'creativized' inner-city districts that became the near-perfect points of

arrival for Uber and Lyft's initial operations in the early 2010s (Rosenblat, 2018). From there, and after ridehailing's widespread legalization in North America and beyond (Namberger, 2024), the PPRP has allowed Uber and Lyft to both drive and be driven by a wider and partly reverse dynamic of *inside-out post-suburbanization*. In the latter's fast-shifting regional landscapes, peripheral premium network spaces—transit hubs, airports, malls, employment districts, leisure sites and more—have started to become the unevenly distributed outposts of what I called Uberization's extended frontier.

At the same time, it should be evident that the concept of the PPRP—along with the notion of peripheral platformization more broadly—requires further theoretical elaboration and empirical probing—best in geographic contexts far beyond the Canadian and North American ones explored in this paper. What forms, then, does the PPRP assume, and which functions does it fulfil in 'non-western' (post-)suburban settings such as, among a myriad more, the high-rise tower blocks of Istanbul (Enlil, 2011), the vertical suburbanisms of São Paulo (Herzog, 2015), the peri-urbs of Delhi (Gururani, 2013), or the *desakotas* of Metro Manila and other Asian metropolises (Ortega, 2012)? Approached from the various angles of today's global suburbanisms (Roy, 2015; Keil, 2018), this question might offer itself as a pertinent, if certainly not the only, avenue for future research on the nexus of platformization, ridehailing and peripheral urban space. Not dissimilarly, I propose the above pages be taken as, first and foremost, an invitation to other scholars to pursue the trails of extended Uberization and peripheral platformization in urban settings far beyond the global North. This may include, yet certainly not be limited to, existing explorations of the Uber phenomenon in cities as varied as Beijing and Buenos Aires (Wu *et al.*, 2019; Del Nido, 2022), Tallinn and Tbilisi (Rekhviashvili and Sgibnev, 2018; Lanamäki and Tuvikene, 2021), or Lagos and Cape Town (Pollio, 2019; Arubayi, 2021), to name only a few. It is across these and other urban contexts that different combinations of Uberization itself and urbanization tout court might point us not merely towards reforms of the former, but also—as envisaged long ago—a revolution of the latter.

Fabian Namberger, HafenCity University Hamburg, Henning-Voscherau-Platz 1, 20457, Hamburg, Germany, fabian.namberger@hcu-hamburg.de

References

- Addie, J.P.D. (2016) Theorising suburban infrastructure: a framework for critical and comparative analysis. *Transactions of the Institute of British Geographers* 41.3, 273–85.
- Addie, J.P.D. (2017) Governing the networked metropolis: the regionalization of urban transportation in Southern Ontario. In R. Keil, P. Hamel, J.-A. Boudreau and S. Kipfer (eds.), *Governing cities through regions. Canadian and European perspectives*, Wilfried Laurier University Press, Waterloo, ON.
- Albo, G. and C. Fanelli (2019) Fiscal distress and the local state: Neoliberal urbanism in Canada. In M.P. Thomas, L.F. Vosko and C. Fanelli (eds.), *Change and continuity: Canadian political economy in the new millennium*, McGill-Queen's University Press, Montreal.
- Altenried, M. (2019) On the last mile: logistical urbanism and the transformation of labour. *Work Organisation, Labour & Globalisation* 13.1, 114–29.
- Altenried, M. (2022) *The digital factory: the human labor of automation*. University of Chicago Press, Chicago, IL.
- Alvarez León, L.F. and J. Rosen (2020) Technology as ideology in urban governance. *Annals of the American Association of Geographers* 110.2, 497–506.
- Arubayi, D. (2021) Documenting the everyday hidden resistance of ride-hailing platform drivers to algorithmic management in Lagos, Nigeria. *South Atlantic Quarterly* 120.4, 823–38.
- Attoh, K., K. Wells and D. Cullen (2019) 'We're building their data': labor, alienation, and idiocy in the smart city. *Environment and Planning D: Society and Space* 37.6, 1007–24.
- Bliss, L. (2019) 'Uber was supposed to be our public transit' [WWW document]. URL <https://www.bloomberg.com/news/articles/2019-04-29/when-a-town-takes-uber-instead-of-public-transit> (accessed 28 July 2024).
- Boardman, A.E. and A.R. Vining (2012) The political economy of public-private partnerships and analysis of their social value. *Annals of Public and Cooperative Economics* 83.2, 117–41.
- Brenner, N., J. Peck and N. Theodore (2010) Variegated neoliberalization: geographies, modalities, pathways. *Global Networks* 10.2, 182–222.
- Burchell, R.W., A. Downs, B. McCann and S. Mukherji (2005) *Sprawl costs: economic impacts of unchecked development*. Island Press, London.
- Calderón, F. and E.J. Miller (2019) A new outlook on ridehailing: spatiotemporal patterns and commuting analysis from the Greater Toronto and Hamilton area. *Procedia Computer Science* 151, 745–50.
- Callon, M. (1984) Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. *The Sociological Review* 32.1, 196–233.
- Catungal, J.P., D. Leslie and Y. Hii (2009) Geographies of displacement in the creative city: the case of Liberty Village, Toronto. *Urban Studies* 46.5/6, 1095–1114.
- Cecco, L. (2019) The Innisfil experiment: the town that replaced public transit with Uber [WWW document]. URL <https://www.theguardian.com/cities/2019/jul/16/the-innisfil-experiment-the-town-that-replaced-public-transit-with-uber> (accessed 28 July 2024).

- City of Summit (2023) Ridesharing program [WWW document]. URL <https://www.cityofsummit.org/692/Ridesharing-Program> (accessed 28 July 2024).
- City of Toronto (2019) Research & analysis: the transportation impacts of vehicle-for-hire in the City of Toronto [WWW document]. URL https://www.toronto.ca/wp-content/uploads/2019/06/96c7-Report_v1.0_2019-06-21.pdf (accessed 28 July 2024).
- City of Toronto (2023) Automated vehicles tactical plan [WWW document]. URL <https://www.toronto.ca/services-payments/streets-parking-transportation/transportation-projects/automated-vehicles/draft-automated-vehicle-tactical-plan-2019-2021/> (accessed 28 July 2024).
- CompaniesMarketCap (2023) Market capitalization of Uber (UBER) [WWW document]. URL <https://companiesmarketcap.com/uber/marketcap/> (accessed 28 July 2024).
- Curbed (2018) DDOT, Lyft team up for late-night pilot program [WWW document]. URL <https://www.curbed.com/2018/5/8/17332558/ddot-lyft-team-up-for-late-night-service-during-week> (accessed 28 July 2024).
- Curtis, T., M. Merritt, C. Chen, D. Perlmutter and D. Berez (2019) *Partnerships between transit agencies and transportation network companies* [WWW document]. URL <https://www.nap.edu/catalog/25576/partnerships-between-transit-agencies-and-transportation-network-companies-tncs> (accessed 18 July 2024).
- Del Nido, J.M. (2022) *Taxis vs. Uber: courts, markets, and technology in Buenos Aires*. Stanford University Press, Stanford, CA.
- Diab, R.S. (2019) Capital's artificial intellect becoming Uber's means of autonomous immaterial production. *Historical Materialism* 27.1, 125–54.
- Donald, B., A. Glasmeier, M. Gray and L. Lobao (2014) Austerity in the city: economic crisis and urban service decline? *Cambridge Journal of Regions, Economy and Society* 7.1, 3–15.
- Enlil, Z.M. (2011) The neoliberal agenda and the changing urban form of Istanbul. *International Planning Studies* 16.1, 5–25.
- Fanelli, C. and H. Whiteside (2023) Pandemic capitalism and cities: work and inequality. *Alternate Routes* 33.1, 36–55.
- Filion, P. (2015) Suburban inertia: the entrenchment of dispersed suburbanism. *International Journal of Urban and Regional Research* 39.3, 633–40.
- Filion, P. and R. Keil (2016) Contested infrastructures: tension, inequity and innovation in the global suburb. *Urban Policy and Research* 35.1, 1–13.
- Filion, P., R. Osolen and T. Bunting (2011) The transition from interventionism to neo-liberalism in the in-between city: the experience of the Toronto inner suburb. In D. Young, P. Burke Wood and R. Keil (eds.), *In-between infrastructure: urban connectivity in an age of vulnerability*, Praxis (e)Press, Toronto.
- Gebrial, D. (2022) Racial platform capitalism: empire, migration and the making of Uber in London. *Environment and Planning A: Economy and Space* 56.4, 1170–94.
- Gehrke, S.R. (2020) Uber service area expansion in three major American cities. *Journal of Transport Geography* 86 June, 1–9.
- GoMonrovia (2023) Gomonrovia by ride-hailing [WWW document]. URL <https://gomonrovia.com/by-ride-hailing/> (accessed 28 July 2024).
- Government of Ontario (2024) Minimum wage [WWW document]. URL <https://www.ontario.ca/document/your-guide-employment-standards-act-0/minimum-wage> (accessed 28 July 2024).
- Graham, S. (2000) Constructing premium network spaces: reflections on infrastructure networks and contemporary urban development. *International Journal of Urban and Regional Research* 24.1, 183–200.
- Graham, S. and S. Marvin (2001) *Splintering urbanism: networked infrastructures, technological mobilities and the urban condition*. Routledge, London.
- Gururani, S. (2013) On capital's edge: Gurgaon: India's millennial city. In R. Keil (ed.), *Suburban constellations: governance, land and infrastructure in the 21st century*. Jovis, Berlin.
- Haila, A. (2016) *Urban land rent: Singapore as a property state*. Wiley Blackwell, Malden, MA.
- Hall, S. and A.E.G. Jonas (2014) Urban fiscal austerity, infrastructure provision and the struggle for regional transit in 'motor city'. *Cambridge Journal of Regions, Economy and Society* 7.1, 189–206.
- Harvey, D. (1989) From managerialism to entrepreneurialism: the transformation in urban governance in late capitalism. *Geografiska Annaler* 71.1, 3–17.
- Harvey, D. (2017) *Marx, capital and the madness of economic reason*. Profile Books, London.
- Herzog, L.A. (2015) *Global suburbs: urban sprawl from the Rio Grande to Rio de Janeiro*. Routledge, London.
- Hodge, G.A. and C. Greve (2010) Public-private partnerships: governance scheme or language game? *Australian Journal of Public Administration* 69.S1, S8–S22.
- Hodge, G.A., C. Greve and A.E. Boardman (2012) *International handbook on public-private partnerships*. Edward Elgar Publishing, Cheltenham.
- Hollands, R.G. (2015) Critical interventions into the corporate smart city. *Cambridge Journal of Regions, Economy and Society* 8.1, 61–77.
- Hughes, T.P. ([1987] 2012) The evolution of large technological systems. In W.E. Bijker, T.P. Hughes and T. Pinch (eds.), *The social construction of technological systems: new directions in the sociology and history of technology*, MIT Press, Cambridge, MA.
- Innisfil (2017a) Stimulating businesses & jobs in urbanizing communities: Innisfil as a case study [WWW document]. URL https://www.torontomu.ca/content/dam/centre-urban-research-land-development/events/Innisfil_CaseStudyPresentation.pdf (accessed 30 July 2024).
- Innisfil (2017b) Town of Innisfil staff report, DSR-042-17 [WWW document]. URL https://learn.sharedusemobilitycenter.org/wp-content/uploads/dsr-042-17_demand-responsive_transit_implementation_-_stage_1_id_210934_-_pdf.pdf (accessed 30 July 2024).
- Innisfil (2017c) Town of Innisfil staff report, DSR-171-17 [WWW document]. URL https://innisfil.civicweb.net/FileStorage/65E9DCB478B44A92851554A31A807DD-Ridesharing%20Transit%20System_%204%201_2%20Month%20Update.pdf (accessed 10 March 2021).
- Innisfil (2020) *Staff report executive summary, DSR-052-20*. Town of Innisfil, Innisfil, ON (accessed 30 July 2024, no longer available online).
- Javed, N. (2020) 'The developers are all in control'. Doug Ford's government moves to limit the power of conservation authorities, sparking fears for the environment [WWW document]. URL <https://www.thestar.com/news/gta/2020/11/11/the-developers-are-all-in-control-new-rules-by-doug-fords-provincial-government-will-limit-the-power-of-conservation-authorities-sparking-fears-for-the-environment.html> (accessed 28 July 2024).
- Jonas, A.E.G. (2011) Post-suburban regionalism: from local politics of exclusion to regional politics of economic development. In N.A. Phelps and F. Wu (eds.), *International perspectives on suburbanization: a post-suburban world?*, Palgrave Macmillan, London.
- Keil, R. (2015) *Suburban constellations: Governance, land and infrastructure in the 21st century*. Jovis, Berlin.
- Keil, R. (2018) *Suburban planet: making the world urban from the outside in*. Polity Press, Cambridge.
- Keil, R. and J.-P.D. Addie (2015) 'It's not going to be suburban: it's going to be all urban': assembling post-suburbia in the Toronto and Chicago regions. *International Journal of Urban and Regional Research* 39.5, 892–911.
- Korf, B. and T. Raeymaekers (2013) *Violence on the margins: states, conflict, and borderlands*. Palgrave Macmillan, New York, NY.

- Lanamäki, A. and T. Tuvikene (2021) Framing digital future: selective formalization and legitimation of ridehailing platforms in Estonia. *Geoforum* 136, 283-92.
- Livingston Shurna, M. and J.P. Schwieterman (2020) 21 Key takeaways from partnerships between public transit providers & transportation network companies in the United States [WWW document]. URL <https://las.depaul.edu/centers-and-institutes/chaddock-institute-for-metropolitan-development/research-and-publications/Documents/21Takeaways-Final.pdf> (accessed 29 July 2024).
- Lo, L., V. Preston, P. Anisef, R. Basu and S. Wang (2015) *Social infrastructure and vulnerability in the suburbs*. University of Toronto Press, Toronto.
- Loxley, J. (2012) Public-private partnerships after the global financial crisis: ideology trumping economic reality. *Studies in Political Economy* 89.1, 7-38.
- Lyft (2019) Streamlining your trip with Metrolinx [WWW document]. URL <https://www.lyft.com/blog/posts/streamlining-your-trip-with-metrolinx> (accessed 30 September 2020).
- Mattern, S. (2021) *A city is not a computer: other urban intelligences*. Princeton University Press, Princeton, NJ.
- Mayring, P. (2004) Qualitative content analysis. In U. Flick, E. von Kardorff and I. Steinke (eds.), *A companion to qualitative research*, SAGE, London.
- McCann, E. (2013) Policy boosterism, policy mobilities, and the extrospective city. *Urban Geography* 34.1, 5-29.
- McFarlane, C. and J. Rutherford (2008) Political infrastructures: governing and experiencing the fabric of the city. *International Journal of Urban and Regional Research* 32.2, 363-74.
- Mees, P. (2010) *Transport for suburbia: beyond the automobile age*. Routledge, London.
- Metrolinx (2008) The big move: transforming transportation in the Greater Toronto and Hamilton Area [WWW document]. URL https://assets.metrolinx.com/image/upload/v1663240133/Documents/Metrolinx/TheBigMove_020109.pdf (accessed 31 July 2024).
- Metrolinx (2015) GO RER initial business case summary [WWW document]. URL http://www.metrolinx.com/en/regionalplanning/projectevaluation/benefitscases/GO_RER_Initial_Business_Case_Summary_EN.pdf (accessed 29 July 2024).
- Metrolinx (2016) GO rail station access plan: final report [WWW document]. URL https://assets.metrolinx.com/image/upload/v1663240170/Documents/Metrolinx/GO_Rail_Station_Access_Plan_EN.pdf (accessed 31 July 2024).
- Metrolinx (2018a) 2041 regional transportation plan for the Greater Toronto and Hamilton Area [WWW document]. URL <http://www.metrolinx.com/en/regionalplanning/rtp/> (accessed 29 July 2024).
- Metrolinx (2018b) GO expansion full business case [WWW document]. URL https://assets.metrolinx.com/image/upload/v1667497052/Images/Metrolinx/GO_Expansion_FBC.pdf (accessed 31 July 2024).
- Metrolinx (2019) Grabbing a Lyft to go [WWW document]. URL <https://www.metrolinx.com/en/discover/grabbing-a-lyft-to-go> (accessed 29 July 2024).
- Mettke, C. (2015) The politics of public transit in postsuburban Toronto. In J. Cidell and D. Prytherch (eds.), *Transport, mobility, and the production of urban space*, Routledge, New York, NY.
- Mezzadra, S. and B. Neilson (2013) *Border as method, or the multiplication of labor*. Duke University Press, Durham, NC.
- Mezzadra, S. and B. Neilson (2017) On the multiple frontiers of extraction: excavating contemporary capitalism. *Cultural Studies* 31.2/3, 185-204.
- Mezzadra, S. and B. Neilson (2019) *The politics of operations: excavating contemporary capitalism*. Duke University Press, Durham, NC.
- Miller, H.J. (2019) Tesla: cities need mass transit. In M. Graham, R. Kitchin, S. Mattern and J. Shaw (eds.), *How to run a city like Amazon and other fables*, Meatspace Press, London.
- Namberger, F. (2024) The state of uberisation: neoliberalism, smart urbanism, and the regulated deregulation of Toronto's taxi-cum-ridehail market. *Antipode* 56.1, 206-28.
- Ortega, A.A.C. (2012) Desakota and beyond: neoliberal production of suburban space in Manila's fringe. *Urban Geography* 33.8, 1118-43.
- Partisans (2019) *The Orbit: Innisfil rural re-imagined* [WWW document]. URL <https://innisfil.ca/resources/The-Orbit-Innisfil-Brochure> (accessed 29 July 2024).
- Peck, J. (2011) Neoliberal suburbanism: frontier space. *Urban Geography* 32.6, 884-919.
- Phelps, N.A. and F. Wu (2011) *International perspectives on suburbanization: a post-suburban world?* Palgrave Macmillan, London.
- Pollio, A. (2019) Forefronts of the sharing economy: Uber in Cape Town. *International Journal of Urban and Regional Research* 43.4, 760-75.
- Pollio, A., L.R. Cirolia and J. Ong'iro Odeh (2023) Algorithmic suturing: platforms, motorcycles and the 'last mile' in urban Africa. *International Journal of Urban and Regional Research* 47.6, 957-74.
- Rekhviashvili, L. and W. Sgibnev (2018) Uber, marshrutkas and socially (dis)embedded mobilities. *The Journal of Transport History* 39.1, 72-91.
- Rosenblat, A. (2018) *Uberland: how algorithms are rewriting the rules of work*. University of California Press, Oakland, CA.
- Roy, A. (2015) Governing the postcolonial suburbs. In P. Hamel and R. Keil (eds.), *Suburban governance: a global view*, University of Toronto Press, Toronto.
- Ruggles, E. (2020) Innisfil and Uber: a rural municipality's misadventures in smart public transit. In M. Valverde and A. Flynn (eds.), *Smart cities in Canada: digital dreams, corporate designs*, James Lorimer & Company Ltd., Toronto.
- Sadowski, J. (2020) The Internet of landlords: digital platforms and new mechanisms of rentier capitalism. *Antipode* 52.2, 562-80.
- Sadowski, J. and R. Bendor (2019) Selling smartness: corporate narratives and the smart city as a sociotechnical imaginary. *Science, Technology & Human Values* 44.3, 540-63.
- Schwieterman, J.P., M. Livingston and S. Van der Slot (2018) Partners in transit: a review of partnerships between transportation network companies and public agencies in the United States [WWW document]. URL <https://trid.trb.org/view/1582297> (accessed 27 May 2022).
- Shaheen, S. and N. Chan (2016) Mobility and the sharing economy: potential to facilitate the first- and last-mile public transit connections. *Built Environment* 42.4, 573-88.
- Shearmur, R. and D. Wachsmuth (2019) Urban technology: the rise of the 'innovation machine'. *Plan Canada* 59.1, 175-9.
- Shelton, T., M. Zook and A. Wiig (2015) The 'actually existing smart city'. *Cambridge Journal of Regions, Economy and Society* 8.1, 13-25.
- Siemiatycki, M. (2013) The global production of transportation public-private partnerships. *International Journal of Urban and Regional Research* 37.4, 1254-72.
- Siemiatycki, M. (2015) Public-private partnerships in Canada: reflections on twenty years of practice. *Canadian Public Administration* 58.3, 343-62.
- Sieverts, T. (2003) *Cities without cities: an interpretation of the Zwischenstadt*. Spon Press, London.
- Smith, N. (1996) *The new urban frontier: gentrification and the revanchist city*. Routledge, London.
- Smith, N. (2010) *Uneven development: nature, capital and the production of space*. Verso, New York, NY.
- Soja, E.W. (2000) *Postmetropolis: critical studies of cities and regions*. Blackwell, Oxford.
- Spurr, B. (2020) Should the city subsidize your Uber? What's behind Ontario's controversial push for private 'microtransit' [WWW document]. URL <https://www.thestar.com/news/gta/2020/08/20/should-the-city-subsidize-your-uber-the-experiments-behind-ontarios-controversial-push-for-private-microtransit.html> (accessed 28 July 2024).

- Srnicek, N. (2017) *Platform capitalism*. Polity Press, Malden, MA.
- Sweeney, S. and J. Treat (2020) Shifting gears: labour strategies for low-carbon public transit. *Socialist Register* 57.1, 218-34.
- Techloy (2023) CHART: Uber makes a profit for the first time in its history [WWW document]. URL <https://www.techloy.com/uber-profit-2023/> (accessed 28 July 2024).
- Torrance, M.I. (2008) Forging glocal governance? Urban infrastructures as networked financial products. *International Journal of Urban and Regional Research* 32.1, 1-21.
- Uber (2018) Paving the future of mobility with Régie Ligne d'Azur in Nice [WWW document]. URL <https://www.uber.com/en-FR/newsroom/paving-future-mobility-regie-ligne-dazur-nice/> (accessed 4 November 2020).
- Uber (2019) Uber initial public offer report [WWW document]. URL <https://www.sec.gov/Archives/edgar/data/1543151/000119312519103850/d647752ds1.htm> (accessed 27 May 2022).
- Uber (2021) Building the future of public transit together [WWW document]. URL <https://www.uber.com/us/en/transit/agency/> (accessed 12 April 2021).
- Urry, J. (2004) The 'system' of automobility. *Theory, Culture & Society* 21.4/5, 25-39.
- Valverde, M. (2018) Urban cowboy e-capitalism meets dysfunctional municipal policy-making: what the Uber story tells us about Canadian local governance. In D. McKee, F. Makela and T. Scassa (eds.), *Law and the 'sharing economy'*, University of Ottawa Press, Ottawa.
- Van Dijk, J., T. Poell and M. de Waal (2018) *The platform society: public values in a connective world*. Oxford University Press, Oxford.
- Vincent, D. (2019) Can Innisfil, a town without its own bus service, build a transit-centred city of the future? [WWW document]. URL <https://www.thestar.com/news/gta/2019/12/08/can-innisfil-a-rural-town-without-its-own-bus-service-build-a-transit-centred-city-of-the-future.html> (accessed 11 March).
- Walks, A. (2015) Stopping the 'war on the car': neoliberalism, Fordism, and the politics of automobility in Toronto. *Mobilities* 10.3, 402-22.
- Wells, K.J., K. Attoh and D. Cullen (2023) *Disrupting D.C.: the rise of Uber and the fall of the city*. Princeton University Press, Princeton, NJ.
- Wiig, A. (2015) IBM's smart city as techno-utopian policy mobility. *City* 19.2/3, 258-73.
- Woodcock, J. and M. Graham (2020) *The gig economy: a critical introduction*. Polity, Cambridge.
- Wu, Q., H. Zhang, Z. Li and K. Liu (2019) Labor control in the gig economy: evidence from Uber in China. *Journal of Industrial Relations* 61.4, 574-96.
- Wyly, E. (2022) YIMBY: the latest frontier of gentrification. *International Journal of Urban and Regional Research* 46.2, 319-30.
- Young, D., P. Burke Wood and R. Keil (2011) *In-between infrastructure: urban connectivity in an age of vulnerability*. Praxis (e)Press, Toronto.
- Young, D. and R. Keil (2014) Locating the urban in-between: tracking the urban politics of infrastructure in Toronto. *Urban and Regional Research* 38.5, 1589-608.
- Young, M., J. Allen and S. Farber (2020) Measuring when Uber behaves as a substitute or supplement of transit: an examination of travel time differences in Toronto. *Journal of Transport Geography* 82, 1-11.
- Zoepf, S., S. Chen, P. Adu and G. Pozo (2018) The economics of ride hailing: driver revenue, expenses and taxes [WWW document]. URL https://fuelandtire.saver.com/wp-content/uploads/2020/03/Zoepf_The-Economics-of-RideHailing_OriginalPdf (accessed 29 July 2024).