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Googling the City: In Search of the Public Interest on Toronto’s ‘Smart’ Waterfront

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Abstract

Toronto’s Quayside waterfront regeneration project has become an international reference point for the burgeoning debate about the scope and limits of the digitally enabled ‘smart city’ narrative. The project signals the entry of a Google affiliate into the realm of ‘smart urbanism’ in the most dramatic fashion imaginable, by allowing them to potentially realise their long-running dream for “someone to give us a city and put us in charge.” This article aims to understand this on-going ‘smart city’ experiment through an exploration of the ways in which ‘techno-centric’ narratives and proposed ‘disruptive’ urban innovations are being contested by the city’s civic society. To do this, the article traces the origins and evolution of the partnership between Waterfront Toronto and Sidewalk Labs and identifies the key issues that have exercised local critics of the plan, including the public/private balance of power, governance, and the planning process. Despite more citizen-centric efforts, there remains a need for appropriate advocates to protect and promote the wider public interest to moderate the tensions that exist between techno-centric and citizen-centric dimensions of smart cities.

Keywords

Google; public interest; Quayside; Sidewalk Labs; smart city; smart urbanism; Toronto; urban planning

Issue

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1. Introduction

The unprepossessing landscape of Toronto’s post-industrial waterfront has become the unlikely setting for what is arguably the boldest and most ambitious ‘smart city’ design ever to emerge in North America. Far from being a purely local matter, the proposed regeneration of the Quayside area of the waterfront is already a national and international reference point for the burgeoning debate about the scope and limits of the digitally enabled ‘smart city’ narrative (Shieber, 2019; Skok, 2019; Wakefield, 2019; Won, 2018). Indeed, the debate in Toronto embraces many of the themes that have surfaced elsewhere under the ‘smart city’ moniker, such as techno-centric versus citizen-centric perspectives on

urban innovation (Cardullo & Kitchin, 2019), data governance issues around privacy and security (Kitchin, 2016; van Zoonen, 2016), the extent to which ‘smart urbanism’ fosters or frustrates urban sustainability (Cugurolo, 2018; Haarstad, 2017), the integrity of the public sphere, where governments are expected to exercise a duty of care (Rodríguez Bolívar, 2016), and the role of profit-seeking technology vendors that are marketing their wares to city mayors as panaceas for a wide array of urban planning problems (Viitanen & Kingston, 2014; Wiig, 2015).

But why does a local regeneration project have such global resonance? The main reason it resonates is because of the corporate identity of the designer—Sidewalk Labs (SL). SL is an affiliate of Google and both

are subsidiaries of Alphabet, the parent company. The Quayside project signals the entry of a Google affiliate into the realm of ‘smart urbanism,’ as yet another ‘corporate storyteller’ (Söderström, Paasche, & Klauser, 2014), in the most dramatic fashion imaginable. While most big tech vendors are content to supply various combinations of technology and services (McNeill, 2015), SL sees the waterfront as an opportunity to engage in a unique place-making experiment that would marry digital technology with urban design and physical planning like never before (Pandey & Soto, 2019). This was evident from the public announcement of the project, when Eric Schmidt, Google’s former executive chair, said that the project allowed them to realise their long-running dream for “someone to give us a city and put us in charge” (Balsillie, 2018, para. 2).

The aim of this article is to analyse SL’s attempt to develop and control the narrative behind this ‘smart city’ experiment and identify the extent to which the public interest is employed by various actors within the planning process as a means of countering private interests. It does this by first situating the Toronto case in the literature on ‘smart urbanism’ and the ‘public interest’ to highlight the critical perspectives of urban scholars in Section 2. Section 3 examines the origins and evolution of the partnership between Waterfront Toronto and SL. Section 4 identifies the key issues that have exercised local critics of the plan, such as the public/private balance of power, the role of civil society, and the planning process. Ultimately, we argue that despite more citizen-centric efforts, there remains a need for appropriate advocates to protect and promote the wider public interest as the smart city emerges as a means to moderate the tensions that exist between techno-centric and citizen-centric dimensions of smart cities.

2. Smart City Narratives: Critical Perspectives on Smart Urbanism

Urban scholars have spent more than a decade debating the nature of the ‘smart city’ and many of them have concluded that it is virtually impossible to understand it in the abstract because it assumes so many diverse forms in practice, prompting one scholar to call for ‘the real smart city’ to stand up (Hollands, 2008). But the fact of the matter is that, given these manifold forms, there is no such thing as the ‘real’ smart city. What we have instead is a wide array of smart city narratives, many of which are techno-centric narratives, with a growing minority concerned to explore more sustainable or progressive narratives. Before addressing these thematic narratives we need to appreciate what is arguably the most significant aspect of all smart city narratives—namely the ‘smart’ discourse (Joss, Sengers, Schraven, Caprotti, & Dayot, 2019).

Consciously or not, the ‘smart city’ discourse frames concepts, policies and investment strategies because it informs and fashions the cognitive maps that constitute dynamic, innovative and well-managed cities. Indeed,

some scholars now claim that the smart city can be considered a global discourse network (Joss et al., 2019). This claim is based on a webometric analysis of ten smart city dimensions that generated a cluster of more than two dozen widely cited cities, a group that included all the cities listed in the top ten smart cities on the planet, namely Vienna, Toronto, Paris, NYC, London, Tokyo, Berlin, Copenhagen, Hong Kong and Barcelona (Cohen, 2012). The conclusions of the webometric analysis were twofold. Firstly, that:

It is no coincidence that the 27 cities identified here form the core of the global discourse network. As (mostly) capital and world cities, backed by national governments and promoted by international organizations and business, they have evidently seized the opportunity to place themselves at the heart of the evolving smart city agenda, using it concurrently to promote urban renewal to their domestic audiences and to signal their global ambitions to foreign audiences, and in doing so frequently engaging in mutual cross-referencing. (Joss et al., 2019, p. 23)

Secondly, the authors detect a complex shift in the discourse regime as regards urban governance inasmuch as it:

Entails calls for a disruptive (seen as positive) change of society: references to outmoded twentieth-century governance models, the need for fundamental transformation, even a whole new way of thinking etc., together make clear the smart city’s ambition to reach profoundly into the social realm. (Joss et al., 2019, p. 23)

Although we can debate the merits of the webometric methodology, these two conclusions deserve to be taken seriously because (a) a group of prominent cities are clearly being touted as beacons for all other cities to emulate in the spurious name of ‘global best practice,’ and (b) the socially ‘disruptive’ ambitions of smart city discourse are far from being wholly benign as we will see in Toronto. Already we can identify examples of global interest by government in smart cities, from the European Commission’s Smart City Solutions (GrowSmarter, 2015), India’s Smart City Mission (Ministry of Urban Development, 2017), to the UK Future Cities Initiative (TSB, 2012), and the United States’ Smart City Challenge (US Department of Transportation, n.d.). Yet we can also detect where the enthusiasm for these sorts of smart city initiatives has resulted in more variegated impacts on the ground where, business interests have been prioritised (Grossi & Pianezzi, 2017), smart city governance has undermined more local democratically elected bodies (Praharaj, Han, & Hawken, 2018), and national programmes have emphasised external export opportunities rather than improvements to cities (Buck & While, 2017).

At the core of most smart city narratives is a paean to the formidable technical power of Information and Communications Technologies (ICTs). Like all technologies, it is a technical power that has no pre-ordained social and spatial trajectory because it is contingent on how and in whose interests it is deployed. But if the early deployment of ICT is any guide, the impact of smart urbanism could be both socially and spatially uneven (Graham & Marvin, 2001; Moss, 1987; Morgan, 1992). Because long before smart city narratives emerged, urban scholars like Mitchell Moss were among the first to explore the implications of ICT for the spaces and flows of urban life. In a celebrated analysis he correctly identified that the diffusion of ICTs would lead not to the ‘end of agglomeration’ or the ‘death of distance’ as some technophiles were predicting but, rather, to the bifurcation of space as advanced business services were centralized in a few principal world cities, “while simultaneously leading to the dispersion of routine information-based activities to the periphery of the metropolitan regions surrounding the largest central cities” (Moss, 1987, pp. 534–546).

Notwithstanding these critical findings, the vast majority of smart city narratives have been so enthralled by the technological possibilities of digitally-connected urban infrastructures and data-driven services that they constitute a form of techno-utopianism (Söderström et al., 2014; Wiig, 2015). As these scholars have demonstrated, this techno-centric discourse owes a great deal to the highly successful marketing campaign that IBM launched after 2008. Having developed its smart city concept through consultancy work in Masdar City and Rio de Janeiro, IBM sought to market the idea more broadly through a challenge exercise, the Smarter Cities Challenge. IBM announced the challenge in 2010 and chose the first round of 24 cities later that year, though the company was slow to realise that the main attraction for the cities was as much IBM’s corporate imprimatur as its smart city technology. When asked why cities applied to the Smarter Cities Challenge, the IBM Director said:

[The Smarter Cities Challenge] generated huge interest from cities all over the world, *even though we hadn’t really begun to explain what the business case was for these things, what the return on investment was going to be, how much money could we help you save....It took us a long time to understand that what was really driving this sort of thing is economic development.* (Wiig, 2015, p. 262; italics in original)

In other words, cities were using the IBM challenge as a place-marketing exercise to signal to international investors that, despite the economic downturn, they remained ‘open for business’ (Wiig, 2015).

If techno-centric narratives dominated the first wave of smart city discourse, recent years have witnessed a new wave of critical perspectives that aim to explore more progressive citizen-centric narratives. Drawing on the work of some of the early critics (e.g., Graham &

Marvin, 2001; Hollands, 2008), Vanolo summarises the concerns of many critical scholars when he argued that “the smart city discourse distances urban government from politics and represents the urban question in terms of the environment and technology, broadening the field of action of technicians, consultants and private companies” (Vanolo, 2013, p. 883). Two dangers flow from such a discourse. Firstly, the techno-centric discourse presents itself as ‘natural’ and ‘univocal’ and effectively seeks to de-politicize the urban planning agenda. Secondly, a single techno-centric vision of the city of the future restricts the horizon of any imaginative planning options, foreclosing the debate about “alternative solutions to the problems of today and tomorrow” (Vanolo, 2013, p. 894).

The new wave of critical perspectives provides a belated opportunity for robust debate about the scope and limits of smart urbanism and its potential for fostering or frustrating urban wellbeing. The critical scholars of this new wave are addressing issues that have been elided hitherto, like the need to overcome the tokenistic attitude to citizen engagement in smart city narratives and the necessity to give more prominence to ‘the place of the public’ (Joss, 2018); the need to be more alive to the ethical issues associated with the erosion of privacy through persistent and systemic mass surveillance (Kitchen, 2019); the need to be more aware of the “anti-planning” thrust of smart city experimentalism, which threatens to undermine the normative values of traditional technologies of planning (Cowley & Caprotti, 2019) and the need to confront the spurious nature of the smart city’s credentials as regards social and environmental sustainability (Viitanen & Kingston, 2014). But critical scholars are also beginning to appreciate the need to move beyond pure critique to explore the scope for more progressive models of actually existing smart urbanism. The positive case was well made recently by McFarlane and Söderström, who issued the following political plea:

We need to engage in the analysis of the variegated forms that ‘real’ SU [smart urbanism] takes on the ground, both in the urban policies of national governments and municipalities, and in the grass-roots initiatives and social movements that disturb, resist or create their versions of SU. (McFarlane & Söderström, 2017, p. 313)

Early smart city initiatives were rife with examples of corporate domination and rhetoric (McNeill, 2015; Paroutis, Bennett, & Heracleous, 2014; Söderström et al., 2014). Many of these developments failed to prioritise local citizen engagement as they sought to maximise the influence of their proprietary technologies within cities, such as Rio de Janeiro’s smart city investments (Gaffney & Robertson, 2018). As identified in Curitiba, Brazil, smart city developments need to better engage with community and participatory forms of governance in order to improve well-being (Macke, Casagrande, Sarate, & Silva, 2018). Yet there are also later cases of smart

city developments that have prioritised local community engagement above wider corporate interests, such as Newcastle, Australia, and in doing so achieve success through the local institutionalisation of smart policies and government ownership of infrastructure (Dowling, McGuirk, & Maalsen, 2018). Similarly, Amsterdam has sought to develop its smart city strategy through “an approach closely linked to strategic urban planning principles...based on strategic thinking, collaboration, and inclusive criteria” (Mora & Bolici, 2017, p. 261) designed to ensure the broader public interest is served.

Planning has long justified its ability to intervene in the built environment on the basis of acting in the public interest (Alexander, 2002). While the profession has often debated what is meant by the concept (Campbell & Marshall, 2002; Murphy & Fox-Rogers, 2015), it is regularly invoked as a means of plan evaluation in practice (Alexander, 2002) and an ethical norm (Howe, 1994) by planners. More broadly, concepts of the public interest have extended to considerations of planning for justice (Basta, 2015; Fainstein, 2010; Schlosberg, 2013). This idea of a universal public interest has however been contested, particularly in relation to criticism of planning’s technocratic rational comprehensive model and the recognition of the plurality of interests inherent within planning processes (Lindblom, 1959; Sandercock, 1998).

The rise of the entrepreneurial city in the 1990s provided further reflection for the planning profession on the role of the public interest in practice (McGuirk & MacLaran, 2001) and examination of the role of collaborative planning to address the local diversity of voices present within communities (Healey, 1997). While Healey argued that a ‘common’ public interest may no longer exist due to a recognition of the heterogeneity of communities she still suggested that a public interest which can “reflect the diversity of our interests” (Healey, 1997, p. 297) was possible and important so long as it was representative and discursive. Campbell and Marshall (2002, pp. 181–182) however note that “given the deep divisions of interest within society, the persistence of disagreement and the prevalence of discord and conflict it seems unlikely that a consensus can be discursively constructed” and as such “argue that choices cannot be left endlessly open.” In full recognition of the need to try and represent the diversity of views, the state, and planning’s central role within it, therefore often attempts to construct the public interest.

Drawing on a case study of Toronto’s Quayside development we examine the process of plan-making by SL and Waterfront Toronto in relation to the public interest, both procedurally and substantively, through an examination of an extensive array of corporate and government publications, media reports, and online discussions in the public domain. Procedurally Alexander (2002, p. 234) suggests the public interest can be “effectively operationalized through socially adopted and legally enforced norms and rules of due process, sound administration, and reasonable decision-making.” While sub-

stantively plans may be assessed on the extent to which they enhance “the welfare of all the parties affected by a plan’s impacts” (Alexander, 2002, p. 238). Through the lens of the public interest, we aim to explore the variable disruptive effects emerging between techno-centric narratives and citizen-centric narratives of smart urbanism and the role of planning in what we believe to be the boldest smart city design ever proposed for a North American city—the SL plan for the regeneration of Toronto’s waterfront.

3. Positioning Toronto’s Smart City

Toronto’s rise towards one of North America’s largest technology hubs has been rapid. A city of 2.9 million people within a wider region of 5.9 million, CBRE, the largest commercial real estate services company in the world, proclaimed the city added twice as many new technology jobs (22,500) as San Francisco (11,540) in 2017 (CBRE, 2018). This saw the city move from 12th to 6th in the CBRE’s overall annual ranking. The most recent 2019 ranking shifted the city even higher to 3rd place behind the San Francisco Bay Area and Seattle. Toronto’s 54% increase in total technology occupations since 2013 was the fastest of all studied markets, nearly matching the number of technology jobs generated in the San Francisco Bay Area over the same period (CBRE, 2019). This boom in the technology sector saw many in Toronto’s business community eagerly embrace a Google affiliate company’s investment in the city, with the Toronto Board of Trade announcing Daniel Doctoroff, the CEO of SL, was to headline their annual dinner a week after the initial selection of the company was made while praising that SL involvement would bring the “global spotlight to our waterfront, establishing it—and Toronto—as a testbed for digital technology and urban innovation” (Toronto Board of Trade, 2017, p. 1). Urban innovations were in high demand in Toronto as its recent success brought with it a series of urban problems, making the city’s population potentially more susceptible to promises of digital solutions. Between 2006 and 2016 the city developed at a brisk pace, with a 9% increase in population (Statistics Canada, 2006, 2016) alongside a high-rise residential building boom that has put pressure on city centre amenities and services (City of Toronto, 2018). This increase in development coincided with house prices doubling between 2011 and 2019 (Real Estate Bay Realty Inc, 2019), political debate hindering investments in public transport (Walks, 2015), and inequality becoming more polarised within the city (Walks, Dinca-Panaitescu, & Simone, 2016). It was within this environment that Waterfront Toronto sought a partner to develop a 4.9 hectare site on the city’s industrial waterfront and SL began to develop its narrative of digital placemaking solutions for Toronto’s ills.

Waterfront Toronto (previously Toronto Waterfront Revitalization Corporation until 2007) was established in 2002 as a tri-funded agency by the federal, provincial,

and municipal governments to revitalise Toronto’s waterfront. Its mission was to facilitate the development of 1,149 hectares of private and public land in a coordinated manner, which it has sought to operationalise through a sustainability framework based on three pillars of economic development, social growth, and environmental protection (Bunce, 2009). The agency however lacks ownership and control over 99% of the land it is tasked to revitalise, does not have expropriation powers, and does not have zoning or planning control powers (OAG, 2018). Waterfront Toronto did however manage to gain sole ownership over a 4.9 hectare site less than 2km East of the downtown core known as ‘Quayside,’ a largely vacant former industrial area. With this new-found opportunity and a new CEO, Will Fleissig, at the helm, Waterfront Toronto issued a request-for-proposal (RFP) in March 2017 for “an Innovation and Funding Partner that...will help create and fund a globally-significant community that will showcase advanced technologies, building materials, sustainable practices and innovative business models that demonstrate pragmatic solutions toward climate positive urban development” (Waterfront Toronto, 2017, p. 6). Alphabet’s subsidiary, SL, was the successful bidder.

Will Fleissig, who stepped down in July 2018, repeatedly referred to SL as a “partner” and the plan for Quayside as a “joint venture.” One local commentator

however argued that this was not the case, but in fact that he was so mesmerised by SL’s smart city discourse of disruption that:

In the name of speed and innovation, he blew off the agency’s meticulously cultivated relationships with the members of the public who have been thoroughly engaged with Waterfront Toronto’s work for almost a generation. (Lorinc, 2018, para. 10)

Waterfront Toronto later admitted to communicating and providing more information to SL and a few other bidders compared to other parties prior to the issuing of the RFP, and were additionally criticised by Ontario’s Auditor General for the short six week time frame to respond to the call compared to previous RFPs, for not consulting with other levels of government prior to signing an initial agreement with SL, as well as a lack of time (a weekend) for the Board of Waterfront Toronto to review the initial Framework Agreement (OAG, 2018). Once signed, the scope of the project proceeded to rapidly evolve over 16 months, with the scale of the project growing from 4.9 hectares to 77 hectares to include proposals for two smart neighbourhoods situated within a wider Innovative Development and Economic Acceleration (IDEA) district (Figure 1). The proposal initially envisioned the development of the original

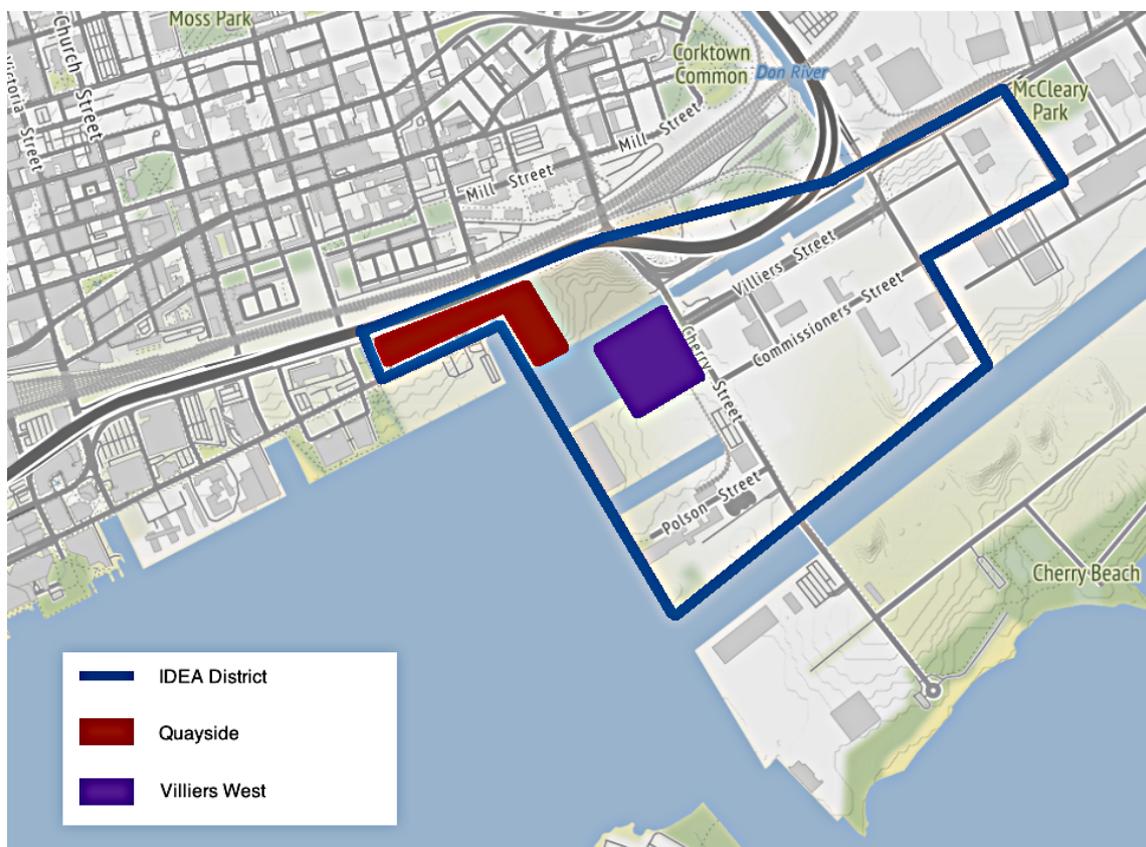


Figure 1. Proposed SL IDEA district representing current site conditions. Proposed flood protection measures are not represented. Source: OpenStreetMap (openstreetmap.org) contributors under the Open Database Licence—CC BY-SA.

Quayside site, comprising housing for 4,200 residents to be followed by the redevelopment of a portion of Villiers Island, to be called Villiers West. Villiers West would include housing for 2,700 people along with an estimated 7,400 jobs located within a 1.5 million square foot innovation campus for applied urban innovation research which would include a new Google headquarters. To facilitate this development the “list of roles SL envisions for itself [grew] to include: planning partner; real estate research and development; real estate economic development catalyst; infrastructure financing; horizontal development partner; advanced infrastructure facilitator; technology deployment; investments in economic development, and value sharing” (Robinson & Coutts, 2019, p. 339). The Ontario Auditor General’s Report ultimately concluded that Waterfront Toronto’s “new agreement with SL raises concerns in areas such as consumer protection, data collection, security, privacy, governance, antitrust and ownership of intellectual property” (OAG, 2018, p. 649).

When SL’s draft Master Innovation and Development Plan (MIDP) was published in June 2019, it laid out a 1,500 page vision for Quayside as well as the neighbouring Villiers West district of the waterfront (Sidewalk Toronto, 2019). The MIDP includes a raft of proposals designed to pilot new technology and building methods, including the use of timber for high-rise construction, adaptable ‘loft’ spaces with flexible wall panels, clean thermal grid, smart underground disposal system for waste, weather-adaptable buildings, new mobility services, and modular pavement systems, to name a few—all managed through a series of sensors integrated throughout the development (Sidewalk Toronto, 2019). Spread over three volumes (The Plans, The Urban Innovations, and The Partnership) it outlines three key ideas as distilled by Waterfront Toronto which produced a ‘Note to Reader’ to aid the public in understanding the extensive proposal, as no executive summary was provided by SL (Waterfront Toronto, 2019a). The first relates to the proposed expansion of the project through the creation of the IDEA District spanning 77 hectares that SL argued was necessary to meet Waterfront Toronto’s required priority outcomes. The proposed district would be overseen by a public administrator who reports to Government, an innovation framework that would allow for necessary regulatory and legal changes as well as design innovations, and the provision of a range of financial tools to help fund infrastructure. Secondly, four roles are proposed for SL: Lead real estate and advanced infrastructure developer for Quayside and adjacent Villiers West; Chief advisor on incremental changes to technical and regulatory innovation and design standards as the project develops; the delivery of new technological solutions; and an optional role in financing local and advanced infrastructure and a new light rail line jointly with the different levels of government. Finally, a financial structure for the development is included in relation to real estate, infrastructure, and intellectual property. The

process leading up to the MIDP’s creation and subsequent proposals were however met with varied levels of suspicion, to which we now turn.

4. Disrupting the (Smart) City Narrative

4.1. From Public to Private Interest on the Waterfront

Since its inception, Waterfront Toronto’s lack of key financial and legal powers saw it focus on facilitation, consultation, and strategic planning through the establishment of relationships with a wide array of Toronto stakeholders (Bellas & Oliver, 2016). Despite this long history of openness, Waterfront Toronto behaved in an extraordinarily secretive manner in its early dealings with SL when Will Fleissig was the CEO. For example, Goodman and Powles (2019) note:

- Agreements between Waterfront Toronto and SL were kept private and not subject to freedom of information requests, with the original terms of the partnership kept hidden from the public eye for nine and-a-half months. Additionally, the terms of the MIDP were kept largely secret until they were announced in July 2019;
- Public engagement exercises were often managed by SL, lacking specifics and accountability to the public;
- Despite the resignations of high-profile advisors to the project and public opposition, there were no identifiable reflections or alterations to plans and processes.

The secretive nature of the planning process and the differential disposition of Waterfront Toronto to SL is all the more difficult to fathom given the scale of resources that the public sector was committing to the project. SL had made no secret of the fact that it had no interest in the project unless public funding was made available to invest in flood protection infrastructure and in a light rail network (Deschamps, 2019; Sauter, 2018). Government had already committed CAD\$1.25 billion to the former, while the latter project remains to be worked out, with SL’s CEO proclaiming that “at the end of the day, if there is no light rail through the project, then the project is not interesting to us” (Deschamps, 2019, p. 1). Doctoroff made the claim following criticism of leaked documents from SL that suggested the company could help to finance the light rail project if the city was willing to provide a portion of property taxes, development fees and increased land value stemming from the development to SL (Oved, 2019).

Aside from the issue of public funds, arguably the most important concern of all has been the potential privatisation of personal data collected as part of the project. Criticism has come from multiple angles, with the MIDP being criticised by Waterfront Toronto’s arms-length Digital Strategy Advisory Panel, made up

of experts from academia, industry, the civic technology community and law, who argued that the issue of data governance should not be decided by SL but rather “the development of data governance for this project—including assessment of whether a data trust is an appropriate vehicle—should, going forward, be led by Waterfront Toronto and its government partners” (Waterfront Toronto’s Digital Strategy Advisory Panel, 2019, p. 24). One of the most prominent and tenacious critics of the SL proposals for data governance has been Bianca Wylie, who argues that the rules and regulations of public governance need to catch up with big tech practice because they were fashioned in the pre-internet era (Bliss, 2018). She also challenged the underlying narrative of the whole project, saying: “Let’s take a minute here to stop and reframe the narrative. This is not an urban planning project, it’s a technology project. As for a technology project, the biggest issue is not privacy, it’s governance” (Wylie, 2018, paras. 18–19). Re-asserting the role of public governance is not easy when all three levels of government—at city, provincial and federal level—have been enthusiastic advocates of the partnership with SL. To date therefore the main public critics of the project have come from the realm of urban civil society.

4.2. Civil Society Reactions

Scholars have argued that public governance is under threat in Toronto from a combination of privatisation (of personal data and intellectual property), domination (through rights-of-way and tech interfaces), and platformization (where the city becomes beholden to SL’s private platform; see Goodman & Powles, 2019). These themes are echoed within the city’s civil society where reactions to SL’s plans have been triggered at two levels, locally and nationally. At the local level one of the main organised reactions has been the formation of *BlockSidewalk*, which it says is a campaign to develop Toronto’s waterfront for the benefit of Torontonians, not corporate shareholders. The civil group called on Waterfront Toronto to reject a business deal with SL, and reset the planning for Toronto’s eastern waterfront, “this time with planning, procurement and consultation remaining firmly in public hands” (Blocksidewalk.ca, 2019, para. 1).

At the national level the Canadian Civil Liberties Association (CCLA) is suing the three levels of government that collectively control Waterfront Toronto to halt the potential privatisation of personal data. In an open letter to the Federal, Ontario, and Toronto governments, the CCLA said that Sidewalk Toronto and the Quayside project should be reset, until all three levels of government, after adequate public consultation, have established:

Digital data governance policies for the appropriate collection, ownership, use and residency of personal

information and other data obtained from public places in any embedded sensor laden, data harvesting Smart City contemplated for Quayside. (CCLA, 2019, para. 3)

In contrast, the Toronto Region Board of Trade claims that there is popular support for the SL plan because, in a poll it commissioned, 55% of residents supported the Quayside project and 76% believed that it should proceed “if the public interest can be safeguarded as the process unfolds” (Wray, 2019, para. 3).

However, these differences are ultimately resolved, it is clear that Toronto has acquired an international reputation for hosting a smart city model that is top-down and tech-driven, a model that is being compared unfavourably with other cities. In Barcelona, for example, the city government is pioneering a citizen-centric design, asserting citizens’ ‘digital sovereignty’ by emphasizing civic participation, social impact and public return (March & Ribera-Fumaz, 2018). Its chief technology officer was keen to contrast Barcelona’s approach to applying technology to solve existing everyday problems versus SL technology first mindset (Thornhill, 2019).

Scholars are also comparing the two cities with respect to the ethics of smart city design. As Rob Kitchen has argued: “Whereas Toronto appears to treat ethics in a procedural way, the Barcelona Digital City Initiative is designed to be open, inclusive, and participatory in practice and ambition” (Kitchen, 2019, para. 5). He goes on to argue that Barcelona’s approach aims to push back against the marketisation of local infrastructure, services, and data while seeking to re-define smart cities as places founded on transparency, rights, and community. This leads us to now consider the role of the planner in the development of Toronto’s smart city.

4.3. What Role for the Urban Planner?

As the SL project has developed there has been a distinct lack of involvement by urban planners, at least publicly. The MIDP broadly aligns to and builds on a wide range of planning strategies that have already been produced, such as the city’s TOcore Building for Liveability (City of Toronto, 2018), Complete Streets Guidelines (City of Toronto, 2019), and guidelines around privately-owned publicly accessible spaces (City of Toronto, 2014) as well as Waterfront Toronto targets for affordable housing provision. The Quayside and Villiers West neighbourhoods are covered by two city approved precinct plans, the ‘East Bayfront’ and the ‘Keating Channel.’ Both plans involved extensive engagement with key stakeholders, residents, businesses, the city and associated agencies over several years (Waterfront Toronto, 2005, 2010). While it is common for precinct plans to evolve and become more concrete as individual projects develop, our preceding discussion highlights a number of concerns regarding the lack of engagement with Waterfront Toronto’s Board, the City of Toronto, its associated agencies such as the public

transportation provider, nearby residents, surrounding land owners, and businesses. SL and Waterfront Toronto both view the MIDP as a draft which is intended to evolve following further consultation.

Based on an assessment by Waterfront Toronto (2019a), the MIDP generally conforms to the two existing precinct plans in relation to the provision of community facilities, connectivity, and role of the main arterial right-of-way running through the site. The MIDP diverges from the two precinct plans by proposing lower levels of density, building height, and on-site parking but higher levels of non-residential uses as well as differences in proposed building mass and built form. Overall, the 'plan' components of the MIDP align to the planning principles established in the two precinct plans but the focus of the plan heavily favours proposed 'techno-centric' innovations such as noise and air quality nuisance monitoring, active stormwater management, smart pavements, and autonomous vehicles all of which rely on a variety of sensors to capture and then process data in real-time (Sidewalk Toronto, 2019). Unsurprisingly, it is the data collection and monitoring proposals that have been the most controversial in the public eye. In response to criticism about who would have access to neighbourhood generated data, SL proposed the creation an independent Urban Data Trust to manage access. But the proposal continued to raise concerns, with critics arguing that SL should not be the ones directing the creation of the trust and the Ontario Information and Privacy Commissioner noting in an open letter to Waterfront Toronto that current proposals have "a lack of independent public oversight, a cumbersome mandate that overlaps with that of my office and the federal Privacy Commissioner, and an insufficient role for the City given its experience delivering 10 municipal services in the public interest" (OIPC, 2019, pp. 9–10).

Applying a procedural view of the public interest to SL planning process to date, there is much lacking. From March 2017 to October 2019, the techno-utopianism (Söderström et al., 2014; Wiig, 2015) narrative in Toronto has seen SL as the inevitable victor in the bidding process, a limited engagement with stakeholders, an overreaching in terms of scope of the plan, and lead architect of proposed new institutions of governance. Filling the governance void, Toronto's civil society sought to push back and argue for the public interest via a citizen-centric narrative advocating for data protection, civil rights, and enhanced governance mechanisms. Usually quite visible during the re-development of neighbourhoods the traditional roles of the planner during this period have been superseded by data scientists, public relations officers, businesses, and civic society in the SL public debate.

Substantively, SL proposed urban innovations include a number of laudable goals, but too often the emphasis is placed on the technological innovation rather than a careful examination of the outcome of the intervention. Here too planners were largely absent in the public debate about the merits of the urban innovations and the

impact they might have on those who will live and engage with the proposed neighbourhood. Beyond issues of data privacy, there are wider concerns to which planners may yet lend their voices at the formative stages of plan evaluation, including the impact on disadvantaged members of the community, cost-effectiveness, political acceptability, and viability. The future suggests planners may however have a stronger role.

At the end of October 2019 Waterfront Toronto issued its response to the MIDP and subsequent agreement with SL. In a two-page open-letter Waterfront Toronto Chair Steven Diamond provided a harsh rebuke of key aspects of the proposals, stating "concerns were rooted in our public interest mandate" (Waterfront Toronto, 2019b, para. 6). This led to an agreement with SL that saw the amount of land reduced back down to the original 4.9 hectares, elimination of the Urban Data Trust proposal, decline of SL request for new governance mechanisms, reversal of SL from lead developer to partner, no requirement for a LRT-line as a precondition, expansion of patent rights for Canadian companies, and entitlement of Waterfront Toronto to a share of intellectual property based on the percentage of revenues as opposed to profits. Also agreed was the creation of a public agency to house data gathered from the project and acknowledgement that 'digital proposals' may be reviewed through public meetings and require government approvals (Waterfront Toronto, 2019c). On this last point city planners may yet play a key role in constructing and then protecting the 'public interest' as the process shifts from broad debates on governance to the details of by-laws, policy, legislation and process.

5. Conclusion

While acknowledging the contested nature of the concept of the public interest, engagement by planners in the public debate about the procedural and substantive public interest dimensions of the proposed SL plan have to date been limited. Instead, Toronto's rise as a technology hub on the global stage initially shifted the focus away from the public interest and towards the corporate ideals of smart urbanism, with less public attention being paid to the traditional planning components of the plan. The very public clash between corporate and civil society on Toronto's waterfront risked a winner-take-all battle for the future smart city. Given the capitulation of SL to Waterfront Toronto's demands it appears citizen-centric narratives of the smart city have won the first round.

The general lack of direct engagement by planners in the smart city debate however suggests a need for cities to fashion new multi-disciplinary teams in which urban planning functions are blended with digital innovation functions and data analytics expertise so that planning is reimagined for the digital era. Lessons from the preceding case study also suggests there is a need to further explore the ways in which municipal activism and civic engagement are harnessed in smart city debates to

advocate for the public interest. While future research should focus on the multi-scalar nature of planning policy to understand how local plans are aligned with and supported by national regulations on data privacy and data governance.

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Conflict of Interests

The authors declare no conflict of interests.

References

- Alexander, E. (2002). The public interest in planning: From legitimation to substantive plan evaluation. *Planning Theory*, 1(3), 226–249.
- Balsillie, J. (2018). Sidewalk Toronto has only one beneficiary, and it is not Toronto. *The Globe and Mail*. Retrieved from <https://www.theglobeandmail.com/opinion/article-sidewalk-toronto-is-not-a-smart-city>
- Basta, C. (2015). From justice in planning toward planning for justice: A capability approach. *Planning Theory*, 15(2), 190–212.
- Bellas, L., & Oliver, R. (2016). Rescaling ambitions: Waterfront governance and Toronto's 2015 Pan American Games. *Journal of Urban Affairs*, 38(5), 676–691.
- Bliss, L. (2018). Meet the Jane Jacobs of the smart cities age. *CityLab*. Retrieved from <https://www.citylab.com/life/2018/12/bianca-wylie-interview-toronto-quayside-protest-criticism/574477>
- Blocksidewalk.ca. (2019). I support the call to #BlockSidewalk. *Blocksidewalk*. Retrieved from <https://www.blocksidewalk.ca>
- Buck, N., & While, A. (2017). Competitive urbanism and the limits to smart city innovation: The UK Future Cities initiative. *Urban Studies*, 54(2), 501–519.
- Bunce, S. (2009). Developing sustainability: Sustainability policy and gentrification on Toronto's waterfront. *Local Environment*, 14(7), 651–667.
- Campbell, H., & Marshall, R. (2002). Utilitarianism's bad breath? A re-evaluation of the public interest justification for planning. *Planning Theory*, 1(2), 165–189.
- Cardullo, P., & Kitchin, R. (2019). Being a 'citizen' in the smart city: Up and down the scaffold of smart citizen participation in Dublin, Ireland. *GeoJournal*, 84(1), 1–13.
- CBRE. (2018). Scoring tech talent in North America, research and reports. *CBRE*. Retrieved from <https://www.cbre.com/research-and-reports/Scoring-Tech-Talent-in-North-America-2018>
- CBRE. (2019). Scoring tech talent in North America, research and reports. *CBRE*. Retrieved from <https://www.cbre.us/research-and-reports/Scoring-Tech-Talent-in-North-America-2019>
- CCLA. (2019). Open letter from CCLA: Calling for a reset on Waterfront Toronto. *CCLA*. Retrieved from <https://ccla.org/open-letter-ccla-calling-reset-waterfront-toronto>
- City of Toronto. (2014). *Privately-owned publicly accessible spaces*. Toronto: City of Toronto.
- City of Toronto. (2018). *TOcore: Building for liveability recommendations report*. Toronto: City of Toronto.
- City of Toronto. (2019). *Complete streets guidelines*. Toronto: City of Toronto.
- Cohen, B. (2012, November 1). The Top 10 smart cities on the planet. *Fast Company*. Retrieved from <https://www.fastcompany.com/90186037/the-top-10-smart-cities-on-the-planet>
- Cowley, R., & Caprotti, F. (2019). Smart city as anti-planning in the UK. *Environment and Planning D: Society and Space*, 37(3), 428–448.
- Cugurullo, F. (2018). Exposing smart cities and eco-cities: Frankenstein urbanism and the sustainability challenges of the experimental city. *Environment and Planning A: Economy and Space*, 50(1), 73–92.
- Deschamps, T. (2019, March 6). Sidewalk Labs may lose interest in Quayside project if transit isn't built, CEO says. *Toronto Star*. Retrieved from <https://www.thestar.com/business/2019/03/06/sidewalk-labs-may-lose-interest-in-quayside-project-if-transit-isnt-built-ceo-says.html>
- Dowling, R., McGuirk, P., & Maalsen, S. (2018). Realising smart cities: Partnerships and economic development in the emergence and practices of smart in Newcastle, Australia. In A. Karvonen, F. Cugurullo, & F. Caprotti (Eds.), *Inside smart cities: Place, politics and urban innovation* (pp. 15–29). London and New York, NY: Routledge.
- Fainstein, S. (2010). *The just city*. Ithaca, NY: Cornell University Press.
- Gaffney, C., & Robertson, C. (2018). Smarter than smart: Rio de Janeiro's flawed emergence as a smart city. *Journal of Urban Technology*, 25(3), 47–64.
- Goodman, E., & Powles, J. (2019). Urbanism under Google: Lessons from Sidewalk Toronto. *Fordham Law Review*, 88(2), 456–498.
- Graham, S., & Marvin, S. (2001). *Splintering urbanism*. London: Routledge.
- Grossi, G., & Pianezzi, D. (2017). Smart cities: Utopia or neoliberal ideology? *Cities*, 69, 79–85.
- GrowSmarter. (2015, February 10). *Growing a smarter, more sustainable Europe* [Press Release]. Retrieved from http://www.grow-smarter.eu/fileadmin/editor-upload/Press_corner/Press_release_final.pdf
- Haarstad, H. (2017). Constructing the sustainable city: Examining the role of sustainability in the 'smart city' discourse. *Journal of Environmental Policy & Planning*, 19(4), 423–437.
- Healey, P. (1997). *Collaborative planning: Shaping places*

- in fragmented societies*. Basingstoke: Macmillan.
- Hollands, R. (2008). Will the real smart city please stand up? *City*, 12(3), 303–320.
- Howe, E. (1994). *Acting on ethics in city planning*. New Brunswick, NJ: Center for Urban Policy Research.
- Joss, S. (2018). Future cities: Asserting public governance. *Palgrave Communications*, 4(36), 1–4.
- Joss, S., Sengers, F., Schraven, D., Caprotti, F., & Dayot, Y. (2019). The smart city as global discourse: Storylines and critical junctures across 27 cities. *Journal of Urban Technology*, 26(1), 3–34.
- Kitchen, R. (2019). The ethics of smart cities. *RTE*. Retrieved from <https://www.rte.ie/brainstorm/2019/0425/1045602-the-ethics-of-smart-cities>
- Kitchin, R. (2016). *Getting smarter about smart cities: Improving data privacy and data security*. Dublin: Department of the Taoiseach.
- Lindblom, C. (1959). The science of muddling through. *Public Administration Review*, 19(2), 79–88.
- Lorinc, J. (2018, July 5). The post-Will era begins. *Spacing Toronto*. Retrieved from <http://spacing.ca/toronto/2018/07/05/lorinc-post-will-era-begins>
- Macke, J., Casagrande, R., Sarate, J., & Silva, K. (2018). Smart city and quality of life: Citizens' perception in a Brazilian case study. *Journal of Cleaner Production*, 182, 717–726.
- March, H., & Ribera-Fumaz, R. (2018). Smart contradictions: The politics of making Barcelona a Self-sufficient city. *European Urban and Regional Studies*, 23(4), 816–830.
- McGuirk, P., & MacLaran, A. (2001). Changing approaches to urban planning in an 'entrepreneurial city': The case of Dublin. *European Planning Studies*, 9(4), 437–457.
- McFarlane, C., & Söderström, O. (2017). On alternative smart cities: From a technology-intensive to a knowledge-intensive smart urbanism. *City*, 21(3/4), 312–328.
- McNeill, D. (2015). Global firms and smart technologies: IBM and the reduction of cities. *Transactions of the Institute of British Geographers*, 40(4), 562–574.
- Ministry of Urban Development. (2017). Strategy. *Smart Cities Mission*. Retrieved from <http://smartcities.gov.in/content/innerpage/strategy.php>
- Mora, L., & Bolici, R. (2017). How to become a smart city: Learning from Amsterdam. In A. Bisello, D. Vettorato, P. Laconte, & S. Costa (Eds.), *Smart and sustainable planning for cities and regions* (pp. 251–266). Berlin: Springer.
- Morgan, K. (1992). Digital highways: The new telecommunications era. *Geoforum*, 23(3), 317–332.
- Moss, M. (1987). Telecommunications, world cities and urban policy. *Urban Studies*, 24(6), 534–546.
- Murphy, E., & Fox-Rogers, L. (2015). Perceptions of the common good in planning. *Cities*, 42(B), 231–241.
- OAG. (2018). *Annual report*. Toronto: Office of the Auditor General of Ontario. Retrieved from <http://www.auditor.on.ca/en/content/annualreports/arbyyear/ar2018.html>
- OIPC. (2019). Open letter from Commissioner: Re: Sidewalk Labs' proposal. *IPC*. Retrieved from https://www.ipc.on.ca/wp-content/uploads/2019/09/2019-09-24-ltr-stephen-diamond-waterfront_toronto-residewalk-proposal.pdf
- Oved, M. (2019, February 14). Google's Sidewalk Labs plans massive expansion to waterfront vision. *Toronto Star*. Retrieved from <https://www.thestar.com/news/gta/2019/02/14/googles-sidewalk-labs-plans-massive-expansion-to-waterfront-vision.html>
- Pandey, A., & Soto, S. (2019). What makes a public space great? *Sidewalk Labs*. Retrieved from <https://www.sidewalklabs.com/blog/what-makes-a-public-space-great>
- Paroutis, S., Bennett, M., & Heracleous, L. (2014). A strategic view on smart city technology: The case of IBM Smarter Cities during a recession. *Technological Forecasting & Social Change*, 89, 262–272.
- Praharaj, S., Han, J., & Hawken, S. (2018). Urban innovation through policy integration. *City Culture and Society*, 12, 35–43.
- Real Estate Bay Realty Inc. (2019). Toronto real estate price history 2011–2019. *Toronto Listing*. Retrieved from <https://toronto.listing.ca/real-estate-price-history.htm>
- Robinson, P., & Coutts, S. (2019). The case of Quayside, Toronto, Canada. In L. Anthopoulos (Ed.), *Smart city emergence* (pp. 333–350). Amsterdam: Elsevier.
- Rodríguez Bolívar, M. (2016). Characterizing the role of governments in smart cities: A literature review. In J. Gil-Garcia, T. Pardo, T. Nam (Eds.), *Smarter as the new urban agenda* (pp. 49–71). Cham: Springer.
- Sandercock, L. (1998). *Towards cosmopolis*. Chichester: Wiley.
- Sauter, M. (2018, February 13). Google's guinea pig city. *The Atlantic*. Retrieved from <https://www.theatlantic.com/technology/archive/2018/02/googles-guinea-pig-city/552932>
- Schlosberg, D. (2013). Theorising environmental justice: The expanding sphere of a discourse. *Environmental Politics*, 22(1), 37–55.
- Shieber, J. (2019, October 31). Sidewalk Labs (Alphabet's grand experiment in smart cities) will move forward with Toronto project. *TechCrunch*. Retrieved from <https://techcrunch.com/2019/10/31/sidewalk-labs-alphabets-grand-experiment-in-smart-cities-will-move-forward-in-toronto>
- Sidewalk Toronto. (2019). Documents. *Sidewalk Toronto*. Retrieved from <https://www.sidewalktoronto.ca/documents>
- Skok, D. (2019, June 25). *Sidewalk Labs offers a futuristic vision of Toronto, but at what cost?* [Audio]. Retrieved from <https://www.cbc.ca/radio/frontburner/sidewalk-labs-offers-a-futuristic-vision-for-toronto-but-at-what-cost-1.5188572>
- Söderström, O., Paasche, T., & Klausner, F. (2014). Smart cities as corporate storytelling. *City*, 18(3), 307–320.

- Statistics Canada. (2006). Population and dwelling counts, for Canada and census subdivisions (municipalities), 2011 and 2006 censuses. *Statistics Canada*. Retrieved from <https://www12.statcan.gc.ca/census-recensement/2011/dp-pd/hlt-fst/pd-pl/Table-Tableau.cfm?LANG=Eng&T=301&S=3&O=D>
- Statistics Canada. (2016). Population and dwelling counts, for Canada and census subdivisions (municipalities), 2016 and 2011 censuses—100% data. *Statistics Canada*. Retrieved from <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/pd-pl/Table.cfm?Lang=Eng&T=301&S=3&O=D>
- Thornhill, J. (2019, August 5). Smart cities still need a human touch. *Financial Times*. Retrieved from <https://www.ft.com/content/67c52480-b51f-11e9-8cb2-799a3a8cf37b>
- Toronto Board of Trade. (2017, October 25). *Sidewalk Labs CEO Daniel Doctoroff to headline Toronto Region Board of Trade's 130th annual dinner* [Press Release]. <https://www.bot.com/Portals/0/NewsDocuments/10252017FINAL%20-%20Dan%20Doctoroff%20-%20News%20Release.pdf>
- TSB. (2012). *Future cities demonstrator: Competition for large-scale demonstrator project funding*. London: TSB.
- US Department of Transportation. (n.d.). *Smart city challenge: Lessons for building cities of the future*. Washington, DC: Department of Transportation. Retrieved from <https://www.transportation.gov/sites/dot.gov/files/docs/Smart%20City%20Challenge%20Lessons%20Learned.pdf>
- van Zoonen, L. (2016). Privacy concerns in smart cities. *Government Information Quarterly*, 33(3), 472–480.
- Vanolo, A. (2013). Smartmentality: The smart city as disciplinary strategy. *Urban Studies*, 51(5), 883–898.
- Viitanen, J., & Kingston, R. (2014). Smart cities and green growth: Outsourcing democratic and environmental resilience to the global technology sector. *Environment and Planning A: Economy and Space*, 46(4), 803–819.
- Wakefield, J. (2019, May 18). The Google city that has angered Toronto. *BBC News*. Retrieved from <https://www.bbc.co.uk/news/technology-47815344>
- Walks, A. (2015). Stopping the 'war on the car': Neoliberalism, Fordism, and the politics of automobility in Toronto. *Mobilities*, 10(3), 402–422.
- Walks, A., Dinca-Panaitescu, M., & Simone, D. (2016). *Income inequality and polarization in the city of Toronto and York Region*. Toronto: Neighbourhood Change Research Partnership.
- Waterfront Toronto. (2005). *East Bayfront precinct plan*. Toronto: Waterfront Toronto.
- Waterfront Toronto. (2010). *Keating Channel precinct plan*. Toronto: Waterfront Toronto.
- Waterfront Toronto. (2017). *Request for proposals: Innovation and funding partner for the quayside development opportunity*. Toronto: Waterfront Toronto.
- Waterfront Toronto. (2019a). *Note to reader. Waterfront Toronto's guide to reading the draft master innovation and development plan proposal submitted by Sidewalk Labs*. Toronto: Waterfront Toronto.
- Waterfront Toronto. (2019b). Open letter from Waterfront Toronto Board Chair. *Waterfront Toronto*. Retrieved from <https://waterfronttoronto.ca/nbe/portal/waterfront/Home/waterfronthome/newsroom/newsarchive/news/2019/october/open-letter+from+waterfront+toronto+board+chair++october+31%2C+2019>
- Waterfront Toronto. (2019c). Open letter: Plan development agreement threshold issues. *Waterfront Toronto*. Retrieved from <https://waterfronttoronto.ca/nbe/wcm/connect/waterfront/86d92f81-20be-4029-a616-00522abbd34a/Threshold+Issues+Resolution+Documents.pdf?MOD=AJPERES>
- Waterfront Toronto's Digital Strategy Advisory Panel. (2019). DSAP Preliminary commentary and questions on Sidewalk Labs' draft master innovation and development plan. *Waterfront Toronto*. Retrieved from <https://waterfronttoronto.ca/nbe/wcm/connect/waterfront/30c682ff-8172-49dc-bf63-09b2a2f1845a/DSAP+Preliminary+Commentary++September+10,+2019.pdf?MOD=AJPERES>
- Wiig, A. (2015). IBM's smart city as techno-utopian policy mobility. *City*, 19(2/3), 258–273.
- Won, J. (2018). Smart cities: Toronto's Google-infused district and lessons from Songdo, Korea. *Cornell Real Estate Review*. Retrieved from <http://blog.realestate.cornell.edu/2018/11/24/smart-cities-torontos-google-infused-district-and-lessons-from-songdo-korea>
- Wray, S. (2019, February 28). Poll suggest 55% support Sidewalk Labs Toronto project as grassroots group mobilises to block it. *Smart Cities World*. Retrieved from <https://www.smartcitiesworld.net/news/news/poll-suggests-55-support-sidewalk-labs-toronto-project-as-grassroots-group-mobilises-to-block-it-3902>
- Wylie, B. (2018, January 25). My deputation to Toronto's executive committee on Sidewalk Toronto. *Medium*. Retrieved from <https://medium.com/@biancawylie/my-deputation-to-torontos-executive-committee-on-sidewalk-toronto-jan-24-2018-ee25785bc44e>

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