***Review***

# Review Essay: Get Smart?!

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## Abstract

*This review essay considers three books that provide a detailed overview of smart cities and the politics and eventual demise of the proposed Sidewalk Toronto project (2017-2020), an initiative of Waterfront Toronto and Sidewalk Labs, Alphabet's urban technology company.*

*Keywords: data governance in the city; smart cities; Sidewalk Toronto*

## Introduction

Josh O'Kane. *Sideways: The City Google Couldn't Buy*. Penguin Random House Canada, 2022.

Michael Healey. *The Master Plan.* Playrights Canada Press, 2023.

John Lorinc. *Dream States: Smart Cities, Technology and the Pursuit of Urban Utopias.* Coach House Books, 2022.

In March 2018 several master's students and I attended a public roundtable organized by Sidewalk Labs and Waterfront Toronto about their proposed "smart city" development for a 12-acre parcel of land located in the downtown waterfront district. Launched in Fall 2017, Sidewalk Toronto was a partnership of Waterfront Toronto (a tri-government stewardship organization created by Canada's federal government, the province of Ontario, and the City of Toronto) and Sidewalk Labs, an urban technology company and offshoot of Alphabet Inc., Google's parent company. Committing $50 million USD ($64 million CDN) over one year to consult with Torontonians on the proposal, this particular roundtable at the Metro Toronto Convention Centre was just one of many public engagement activities until Sidewalk Toronto's demise two years later in the early months of the Covid-19 pandemic.

Upon entering the ballroom at the Convention Centre, we were greeted by a plethora of friendly staff wearing blue branded t-shirts who directed us towards many tables replete with coloured markers, post-its and prompts where we could engage with other attendees about aspects of urban innovation, crowdsourcing ideas for "what would a city look like if you designed for *people first* in the digital age?" "Wow!" said one student, "this is just like being at Best Buy!" referring to the consumer retail giant's ubiquitous and attentive customer service representatives sporting their uniform of blue polos. Sidewalk Labs staff also presented their vision of the project to "make Toronto the global hub for urban innovation", "serve as a model for sustainable neighborhoods", and to "establish a complete community that improves

quality of life for a diverse population of residents, workers, and visitors" (quotes taken from photos of their slide deck). This would be accomplished through Sidewalk's four core principles: "not tech for tech's stake," "we respect privacy," "we believe in open standards," and "diversity makes us stronger."

Dan Doctoroff, CEO of Sidewalk Labs (and former deputy mayor of New York under Michael Bloomberg's leadership) noted that "The smart city movement as a whole has been disappointing in part because it is hard to get stuff done in a traditional urban environment" (Badger, 2018) and therefore saw the Toronto site (dubbed Quayside) as a fertile site for innovation. The initial investment of $300 million USD by Alphabet didn't hurt either in envisioning grand schemes. The announcement, however, of Sidewalk Toronto was met with considerable concern from residents and public interest groups. Toronto's Civic Tech community crowdsourced a document detailing an array of concerns about its business model and project governance; opaque processes of engagement with city councillors, municipal officials, and the secretiveness around government collaboration; lackluster response to legitimate concerns related to privacy, data governance and the role of open data and standards in the project; and widespread issues around affordability and inclusivity. Certainly, there was a high degree of cynicism and distrust about a global big tech juggernaut, parent company Google, setting up shop in another country – a type of branch plant presumption of entitlement. But for others, the fabulous "Googley" design elements they proposed, featuring mass timber structures, building raincoats to shield from Toronto's often crappy weather, underground delivery systems, modular sidewalks, and taxi-bots, evoked glee, and awe, and indeed, positioned a vision of "reimagining the city as a digital platform", according to the COO of Sidewalk Labs (O'Kane, p. 47).

Josh O'Kane, reporter at the *Globe and Mail*, provided intrepid investigative exposés on the intrigue, machinations, and debacle of Sidewalk Toronto, culminating in his national bestseller and critically lauded book, *Sideways: The City Google Couldn't Buy.* Expanding his original reportage via interviews with over 150 people involved in the project – those involved with Waterfront Toronto, its partnership with government entities, municipal leaders, members of the Digital Strategy Advisory Panel (DSAP), civil society, community organizers, academics, and urban planners, as well as access to public and confidential documents– O'Kane's book brings to delicious light the foibles and follies of the controversial project. As he remarked, upon Doctoroff's announcement abandoning the project because of "unprecedented economic uncertainty" (Doctoroff, 2020) wrought by the pandemic, O'Kane remarked, "I realized I'd witnessed something that said more about how power works in the twenty-first century than a sensor-filled 12-acre neighborhood flooded with garbage-hauling robots ever could" (O'Kane, p. 16).

Created in 2015, Sidewalk Labs was Alphabet's civic technology incubator, working toward "reimagining cities to improve quality of life", and their many investments in urban infrastructure deepened Google's digital presence. These included Intersection (2015), LinkNYC kiosks that offered free public Wi-Fi hotspots connected to billboards that served ads, but which controversially encouraged loitering and was beset with people watching porn (McGeehan, 2016); Opti RTC (2017), a cloud-based platform providing Continuous Monitoring and Adaptive Control systems for urban stormwater systems; Cityblock (2017), private healthcare solutions

for marginalized communities; SPIDR (2018), a platform for automated communications between law enforcement agencies and their publics; and Coord (2018), an urban logistics platform to facilitate mobility through APIs for ride hailing, product delivery, and bike sharing through access to real-time data[1]. In December 2021 Sidewalk Labs ceased to exist, as Doctoroff stepped down for health reasons, and its projects were integrated into Alphabet.

One of the scoops O'Kane uncovered was Sidewalk's notorious 437-page Yellow Book that proposed utopian and visionary plans for building "a city from the internet up" (O'Kane, p. 60) along with new massive educational, societal and governance infrastructures led largely by the private sector; "ideas dressed as progressive," O'Kane writes, but giving "unprecedented control to Alphabet and its partners" (O'Kane, p. 60), and yielding potential revenues of $83B from building leases and land sales. The Yellow Book also revealed Sidewalk's plan to supersize their project beyond the confines of the original remit to encompass 1,000 acres.

Along the way O'Kane provides colorful profiles of key Canadians that challenged the project. These included Jim Balsillie, former chair and co-chief executive officer of Research in Motion (the BlackBerry phone), philanthropist and co-founder of the Council of Canadian Innovators and the Centre for International Governance Innovation, who decried the project for being "a secretive, unelected, publicly funded corporation with no expertise in IP, data or even basic digital rights" that was "in charge of navigating forces of urban privatization, algorithmic control and rule by corporate contract" (Balsillie, 2018). Bianca Wylie, a co-founder of advocacy group Tech Reset Canada that promoted the public interest in technology projects and a realignment of the innovation agenda, became a forceful and effective critic, arguing that Sidewalk Toronto was a mere technology project with its largest problematic governance; as she stated, "We need to understand the terms of the deal, and the way this money is being spent. We must protect our digital infrastructure and data, and the immense value of our public assets" (O'Kane, p. 133).

Data governance in the smart city became a central issue, related to the collection, disclosure, retention, and ownership of data; the types of personally identifiable information to be collected; and the parameters of meaningful consent across urban technologies of sensors, the Internet of Things (IoT), autonomous vehicles, and literal bodies in motion traversing through the urban landscape. Privacy by Design (PbD) – the inclusion of data protection in initial system design – was championed by Sidewalk Toronto as their solution to the data privacy predicament, with Ann Cavoukian, former Information and Privacy Commissioner of Ontario and developer and promotor of PbD, brought in as an early advisor. However, she resigned over concerns that third parties would not implement data protection, leading to her fears that Sidewalk was reneging on "creating a Smart City of Privacy, as opposed to a Smart City of Surveillance" (Canon, 2018). In response, Sidewalk Toronto released an early version of a *Responsible Data Use Policy Framework* and convened an advisory group on data governance.

[1] See Sidewalk Lab's webpage on the WayBack Machine: https://web.archive.org/web/20181130154722/https://www.sidewalklabs.com/

O'Kane's apt descriptions of the various stakeholders embroiled in the Sidewalk saga are adopted in an ingenious and humorous way in Michael Healey's two-act play script, *The Master Plan,* which was commissioned by Toronto's Crow Theatre and premiered in Fall 2023[2]. As a fictional coda to *Sideways*, the short script is lively, sharp and a complement to O'Kane's investigative reportage. Characters depicted include those from Waterfront Toronto, Sidewalk Labs, federal, provincial, and municipal politicians, board members, community activists, and O'Kane himself. The narrator is an oracle in the guise of The Tree, a Norway maple residing at 134 Yorkminster Road (a nod to a ruling by the City's Urban Forestry department that denied a homeowner's request for removal of the tree to maintain the urban canopy). Along the way Healey pokes fun at quantifying the audience's user experience through data gathering, provides background information on the meteoric rise of Google, New Yorker's take on Toronto, the correct pronunciation of Toronto (silent second *t*), the urban activist Jane Jacobs who moved from Greenwich Village to Toronto and spearheaded the 'Stop Spadina' campaign in the '60s that halted the development of a major highway through the community, Doctoroff's alleged tantrums, and the dissension and miscommunication between Waterfront and Sidewalk. Healey throws hilarious barbs at the political class, the tech bros, and enduring (but not endearing) U.S.-Canadian tensions over cultural sovereignty and power.

Toronto journalist John Lorinc also delves into Sidewalk Toronto in his book *Dream States: Smart Cities, Technology and the Pursuit of Urban Utopias,* winner of the Balsillie Prize for Public Policy in 2022. Building on a series of articles in *The Toronto Star* supported by an Atkinson Foundation fellowship, Lorinc situates the project amidst a detailed review of the global smart city movement, commenting that Sidewalk Toronto's failure provides "some important lessons about the future of the post-pandemic city" (Lorinc, p. 10). The project also reflects persistent themes in the development of urban regions, "the projection of utopian futures as a means of solving the social ills of the present, and the promises of engineered urban technologies that can be scaled, customized, and then pressed into service as a way of fostering commerce, innovation, and even social or political reform" (Lorinc, p. 9).

Lorinc is inspired by the late Ursula Franklin, the University of Toronto professor who trained in experimental physics and whose specialty was metallurgy; she was well known as a pacifist, environmental activist, and philosopher of technology. In the 1989 Massey Lecture, *The Real World of Technology* (Franklin, rev. ed., 1999), Franklin entreated us to think about how technologies can contribute to the public good and for the betterment of communities. We need to look at the social class of experts, she wrote, the changing nature of community and constituency that are implicated by technologies, and probe: whose power, and whose control are we talking about?

In the first and second sections of his book, Lorinc provides a comprehensive historical account of the social and economic impact of cities and how various urban technologies have shaped cities, including the trajectory from formative technologies to digital technologies. Design for the masses to orient and develop healthy living conditions for all urban residents was an early motivator for public health advocates, leading to innovations in water and sewage networks. The

[2] https://www.crowstheatre.com/whats-on/view-all/themasterplan

transition from gas lighting to electrification, and changes in urban architecture and design for the masses followed. Information and communication technologies accelerated the rise of global cities, spurred on by the attendant lure of capital infusions.

Smart city technologies encompassing data-driven devices of sensors, IoT, facial recognition technology, AI, and forms of big and open data are deployed in real time to predict, manage, control, assess, and modify the delivery of an array of urban services. Comments Lorinc, "The smart city agenda aimed to impose a measure of rationality on twenty-first-century urbanism, with all its chaotic energy" (Lorinc, p. 17). Indeed, smart city proponents accentuate that the automation and streamlining of city services renders them responsive and efficient to urban dwellers, while providing urban planners and administrators with valuable data about infrastructural performance. Lorinc remarks upon the lucrative political economy of this sector, "whose revenues could grow to anywhere from US$300 billion annually to over US$2 trillion, according to various estimates" (Lorinc, p. 97). Corporate vendors include dominant global ICT firms such as Cisco Networks, Fujitsu, IBM, Siemens, Verizon, Vodafone, General Electric, Microsoft, Ericsson, and Huawei.

Emboldened by an ideology of innovation, smart cities can be captivating to governments, city residents, and policymakers. The ideology of smart cities is romantic, if not quirkily quixotic; says Lorinc, "The utopian fantasy is that cities are potentially knowable, thanks to the omniscience of technologies that also purport to play the role of oracle, predicting the future, in all its granularity, and ordering up the necessary course corrections along the way" (Lorinc, p. 98). With the Sidewalk Toronto project, this knowability raised intense concerns about whether so-called smart technologies could amplify a surveillant landscape to enrich industry while leaving citizens precarious in their ability to control and protect their privacy. Lorinc notes that, "These issues are ultimately not technical questions to be solved with better technology. Nor are they simply legal questions" (Lorinc, p. 190).

When Sidewalk Toronto released their long-awaited Master Information and Development Plan (MIDP) approximately twenty months after they burst on the scene, it too was monumental: four-volumes, 1,500-pages, and weighing eighteen pounds[3]. Titled "Toronto Tomorrow," the MIDP outlined sweeping technological, infrastructural, and real estate objectives, exceeding their original remit with proposed design schemes of a new "IDEA" District to headquarter Google Canada and an urban innovation hub, 35-story timber buildings, and the establishment of a data trust – a new public body to govern all the data collected. It was an audacious plan and countered by community outreach initiatives and citizen activism, including from the group #BlockSidewalk and the Canadian Civil Liberties Association, who both called for a shutdown of the project (CBC News, 2019).

In his conclusion, Lorinc considers the technologies ushered in by the pandemic, many solutionist in nature with their efficacy contested – contact-tracing apps, Google's community mobility reports that charted mobility patterns over time and different spatial contexts, from

[3] Sidewalk Labs Project Documents: https://www.sidewalklabs.com/toronto

retail to workplaces to transit to recreation. Enduring and informative are wastewater surveillance systems that test the presence of the Covid-19 virus in local environs and present the information on dashboards, and an increased recognition and response to the importance of indoor air quality. In the post-pandemic city, is the moniker of 'smart' thus appropriate? Utopian branding with the mantra of innovation can be seductive, but Lorinc strongly argues for new language that incorporates equity, inclusion, and social justice, which captures "the most enduring qualities of cities: resilience, adaptability, ingenuity, diversity, serendipity, endurance, and, critically, a sense of place. One size doesn't fit all, and indeed never has" (Lorinc, p. 265).

Indeed, the Sidewalk Toronto project was counter to the values and practices imbued by community informatics (CI), which envisions the design and deployment of ICTs to enable communities to build and enhance their particular social, cultural, economic and political goals (Gurstein, 2012). And while community informatics is global in scope, as evidenced by scholars and practitioners involved in the Community Informatics Research Network (CIRN) and the work published in *JOCI*, there is a specific Canadian sensibility to CI, which saw traction in the early deployment of the internet in the mid-1990s. For instance, municipal and community WiFi networks (also known as free-nets) were widely deployed across the country by volunteers and community groups to create community infrastructure for residents, with federal government program funding from the Community Access Program creating community access points in urban, rural and First Nations communities, embedded within community centres, public libraries, and friendship centres (Clement et al., 2012). Importantly, ensuring the robustness of the public interest was a key consideration in ICT development, deployment, and policymaking.

The blustering and gaslighting by Sidewalk Toronto's promoters epitomized a neoliberal and corporate vision of the smart city. Whither the public interest? It's converse to the progressive innovation of an *open smart city,* characterized by OpenNorth researchers Rachel Bloom, Tracey P. Lauriault, and Jean Noé Landry as "participatory, collaborative and responsive," with a governance model that is "ethical, accountable and transparent," and wherein "data management is the norm and custody and control over data generated by smart technologies is held and exercised in the public interest" (Bloom, Lauriault & Landry, 2018).

Circling back to Franklin, it is apt to highlight her entreaty that planning for public infrastructures requires appropriate modes of consultation with the public so that decision-making can incorporate social justice, reciprocity, people's experiences, conservation, and divisible benefits (Franklin, 1999, p. 66). O'Kane, Healey and Lorinc each provide engaging and sharp critiques of smart cities and Sidewalk Toronto, the huge project that couldn't reach lift off.

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