

POLS 4404 – Politics and Cultures of Neoliberal Urbanism

Research Proposal (7-8 pages before reference list, double spaced): originally due March 6; due date extended to March 13th.

Presentation of Draft Term Paper in class, April 3

Final Paper, 10-12 pages, double spaced, not including bibliography: Due April 10th.

Students are free to pitch an idea for their paper to the instructor. Please seek approval prior to commencing research no later than March 4th.

Alternatively, here are some pre-approved options:

1. What are some of the major ways that neoliberal urbanism relates to Wendy Brown's analysis of the undoing of democracy? Discuss three aspects.
2. What are some of the ways that centring questions of race/settler-colonialism extend neoliberal urban theory? Discuss three elements.
3. How is neoliberal urban theory useful to understanding [choose a specific program, policy or project in a single city, such as smart city initiatives, food policy, gentrification of a particular neighbourhood, etc.]? Discuss three aspects.
4. Focusing on Regent Park, do "social mixing" policies support neoliberal urbanism? Discuss three aspects.
5. How does neoliberal urbanism relate to inequalities in Toronto? Discuss three examples.
6. What are some of the linkages between gentrification and neoliberal urbanism? Discuss three examples.
7. Is neoliberal urbanism contested through urban agricultural initiatives? Discuss with respect to three examples.

Selected Questions to Consider as You Prepare Your Research Paper:

- Have I followed the assignment instructions? Please note, if assignment instructions are not followed, penalties will incur.
- Have I sought out guidance from York's Writing Centre or from the Instructor during regular office hours?
- Has my research paper established a clear argument tied to a coherent line of investigation?
- Does my research paper provide evidence that supports the main argument in a logical and coherent fashion?
- Is my research paper written in such a way that it flows well? Is it organized and structured in a sensible manner?
- Am I demonstrating strong analytical skills in my research paper?
- Does my research paper offer clear and cogent examples and illustrations?
- Does my research paper follow standard academic style, including proper grammar and vocabulary?
- Have I proofread my paper? Have I used a basic grammar check?
- Have I properly cited all of my sources using the style of the *Canadian Journal of Political Science*?
- Have I availed of the writing support resources on campus?
- Have I reached out to the instructor for guidance by scheduling an appointment to discuss my research paper?
- Have I kept all of my research notes and other research materials so that I can provide them to the instructor if asked?

Dreams of the Merchant-King: Sidewalk Toronto as Neoliberal Project
POLIS 4404
Joseph Yachimec
April 10th, 2019

In a 2017 interview, Eric Schmidt, the CEO of Google, mused about “all the things [the company] could do if someone would just give us a city and put us in charge” (Dingman 2017). Schmidt is far from alone in his excitement over the private ownership of formerly public goods, but his view, and that of the corporation he leads, is of particular relevance to the citizens of Toronto. Sidewalk Labs, a company owned by Google’s parent corporation Alphabet, is in the process of partnering with the City of Toronto to redevelop the post-industrial Quayside area, with Sidewalk Labs being given wide latitude to plan the area in exchange for 50 million dollars (Morozov 2017). The project is called Sidewalk Toronto, and is perhaps the highest-profile example of the much-bruited “smart city” initiatives. Initially hailed as a plan to create a “digital utopia” and introduced by an excited Justin Trudeau as “a new type of neighbourhood that puts people first,” which will “transform Quayside into a thriving hub for innovation,” the project has faced increasing criticism as its details have made their way into the press (Dingman 2017; Hawkins 2017; Reuters 2019; Rider 2018).

This paper will argue that, as a marquee “smart city” project, Sidewalk Toronto is a paradigmatic example of neoliberal urbanism in three respects: it shifts power from the public to the private sphere, it extends markets into previously unmarketized spaces, and it actively reorients human understanding to the benefit of capital. For these reasons, it raises several important questions about the future of cities in the continuing neoliberal era. Discussion will begin with a brief background section and a definition of terms before proceeding to each of these neoliberal aspects in turn.

It should not be controversial to state that Alphabet is a profit-seeking firm, and as such its plans for Quayside are not being undertaken out of a sense of civic duty. Though Sidewalk Labs has proposed that all collected data be stored in an “independent civic data trust” to which Alphabet would have no special claim, this does not preclude the sale of this data (Kofman 2018; McLeod 2019). Though Sidewalk Labs has stated that all data will be “anonymized,”

personal location data is notoriously easy to “de-anonymize,” as the number of people who both sleep in your house and work at your workplace generally equals one (Kofman 2019). The usage of city infrastructure to collect data also raises other important concerns.

Alphabet collects data because it is profitable to do so, and it is currently profitable because this data can be analysed, packaged, and sold. A market exists for this data because it can be used to make predictions about individual behaviour, which is of interest to firms in areas such as advertising and machine learning (Zuboff 2015, 78). Cities, as concentrated spaces marked by intense social and economic activity, are prime locations for data collection, and this explains Toronto’s attractiveness to Sidewalk Labs and Alphabet.

Even as they currently exist, Alphabet’s prediction products raise major questions around the usage of knowledge and power. However, critics, among them Shoshana Zuboff, claim that this is not Alphabet’s final goal (Zuboff 2015, 85–86). A growing body of research has revealed the potential for mass-scale behavioural modification through the use of big data services, including those provided by Alphabet (Epstein and Robertson 2015, E4514; Kramer, Guillory, and Hancock 2014, 8788). Such technology holds radical implications, both for firm profitability and for human agency. This idea, and its relationship to Sidewalk Labs, will be explored in detail below.

DEFINITIONS

For the purpose of this work, David Harvey’s definition of “neoliberal” will be used: “a theory of political-economic practices proposing that human well-being can best be advanced by the maximization of entrepreneurial freedoms within an institutional framework characterized by private property rights, individual liberty, unencumbered markets, and free trade” (Harvey 2007, 22). To expand on this simple definition slightly, the idea of *extending market logic through society* is central to the neoliberal project, driving a push towards flexibility, adaptability, privatization, monetization, and other methods of exposing existing

political-economic forms to the “creative destruction” of capitalist accumulation. This logic extends to the urban, accelerating spatial inequality and reorienting geographic divisions as cities are reimagined as spaces of entrepreneurial contest and social protections are removed through austerity (Harvey 1989, 4; Peck and Tickell 2002). In this context, Sidewalk Toronto represents an intensification of existing neoliberal trends rather than a radical break with them.

“Smart city” seems to serve more often as a marketing buzzword invoking flavours of high-tech intelligence and futuristic convenience than as an academic analytical category. It is awash in a sea of similar terms: “smart device,” “smart manufacturing,” “smart grid,” “smart TV,” “smart contract,” “smart home,” “smart speaker,” “smart glass,” “smart thermostat,” “smart highway,” “smart toy,” “smart battery,” “smart drug,” “Smartwater.” It will be treated as such here, though some minor clarification is perhaps necessary. The term has been used to describe an extraordinarily wide array of possible city-planning practices, services, and technologies, from “high-quality and more efficient public transport that responds to economic needs and connects labor with employment” to “capturing and integrating live real-world data through the use of sensors, meters, appliances, personal devices, and other similar sensors” to “more accurate metering... for the development of urban smart energy grids” (Albino, Berardi, and Dangelico 2015, 5). For the purposes of this paper, a “smart” city is understood as *a city which incorporates computer-modelled, data-driven, and generally algorithmically-determined forms of social and physical management to adjust city conditions in areas such as traffic control and energy usage, either during the planning phase or in real-time*. This definition of a smart city implies the collection of data through a wide variety of sensors and monitors incorporated into the city infrastructure. It is a definition of the city as *adaptive*, a conception of urban space with clear similarities to neoliberal conceptions regarding the market: a self-managing “information processor” or gestalt intelligence, allowing individuals to “adjust their actions to the particular circumstances largely known only to them and never

known in their totality to any one mind” (Hayek 1978, 160). The “adaptive” city implies a radical marketization of urban space.

POWER

The redistribution of power from public to private forms the core of the neoliberal project. This often takes the form of privatisation of public resources, or what Harvey terms “accumulation by dispossession,” which he compares to the Marxist concept of “primitive accumulation,” or gaining wealth through violent theft (2007, 34–35). Though he argues that the current neoliberal period is nothing new (in fact, that it is an inevitable part of the cycle of accumulation, and marks the end of the dominance of a single power, in this case, the United States), Giovanni Arrighi concurs with Harvey’s judgement that the neoliberal era is characterised by a loss of legitimacy and a “basic neglect of world governmental functions” in favour of private market power (2010, 309–10). *Sidewalk Toronto* fits neatly into this project, and reflects provincial trends in Canada.

In Ontario, neoliberalism has been accompanied by budgetary austerity and a focus on provincial deficits, which emerged during the Bob Rae government in the early 1990s and continued under the government of Mike Harris and his Conservative “Common Sense Revolutionaries” (Evans and Fanelli 2018, 138). This involved radical cuts to basic services and the devolution of responsibility onto municipalities, and had widespread deleterious effects, especially for the province’s indigenous peoples (Mascarenhas 2007, 568–69). Budgetary constraints in Toronto thus resemble budgetary constraints throughout much of the rest of the neoliberal world: government focus has been directed toward controlling inflation by cutting spending and paying off debt, which also disciplines labour by causing unemployment (McBride and Evans 2017, 4). In such an environment, the prospect of a company as wealthy as Alphabet acting as “innovation and funding partner” is sure to attract attention (*Sidewalk Labs* 2017, 1).

Several of the development directions explored by Sidewalk Toronto appear somewhat suspicious in light of Alphabet's business interests. First, the company bills the Quayside as "the first district where the only vehicles are shared and self-driving," and admits that it intends to turn the neighbourhood into a test area for Waymo, Alphabet's self-driving car concern (Sidewalk Labs 2017, 17, 29). Beyond simple conflicts of interest, this is troubling for several reasons: it treats a public space as a laboratory for profit-seeking firms without offering residents the opportunity to opt out (as test drives would be happening, by definition, on public-use streets), obtains data from non-consenting "participants" in order to improve a product that they will not benefit from financially, provides Waymo with marketing potentially subsidised by the citizens of Toronto, and (perhaps most seriously) exposes pedestrians to harm. Self-driving cars are by no means safe or ready for the market, a fact that became apparent after an autonomous car being tested in Arizona by Uber struck and killed Elaine Hertzberg while she was crossing the street (Wakabayashi 2018). Uber enjoys a "cozy" relationship with the state's governor, and the Tempe police, for their part, blamed Hertzberg for her own death (Harris 2018; Said 2018).

Next, Sidewalk Toronto proposes the ambitious idea of routing water, power, telecommunications, and robotic garbage disposal through "utility channels," which would not be placed under roads, and thus would not require digging through them in order to perform maintenance. While this is an intriguing idea, the idea of garbage disposal raises some questions. Sidewalk Toronto notes that parts of other cities, such as New York City and Stockholm, make use of vacuum systems to handle their solid waste, but proposes the more radical idea of using robots for waste sorting and disposal, claiming that this could later be expanded into a robotic freight system (Sidewalk Labs 2017, 18–19, 25). Alphabet does not own a vacuum waste disposal company, but it does include X, a robotics development firm which, after being rocked by a major sexual-abuse scandal, has begun to develop non-

humanoid utility robots for item sorting and delivery (Metz, Dawson, and Felling 2019). It is entirely possible that Sidewalk Labs is recommending this system out of something other than a desire to see the best solution implemented.

Finally, Sidewalk Labs proposes partnering with major tech companies to provide prospective workers with “an advanced skills training program,” and plans to offer tech-related programs to schoolchildren in order to provide them with high-value skills it claims are in great demand. On its face, this seems like an attractive offer, but it relies on questionable (and typically neoliberal) reasoning. Instead of being the outcome of policy decisions undertaken by political actors with real agency, unemployment is seen as essentially a technological outcome, a case of workers having inadequate skills to compete in a new globalised knowledge marketplace. This “quasiclimatic, extraterrestrial” model of social reasoning is extremely pervasive throughout the neoliberal project, wherein change is seen as inevitable and somehow beyond human control—all that can be done is to adapt (Peck and Tickell 2002, 382–83; Sidewalk Labs 2017, 31). The effect that such a bumper crop of talented, bright-eyed youngsters will likely have on the salaries of tech workers is not examined. Neither is the potential for this para-public form of education to begin a process of “privatisation by stealth.”

For “providing” all of these “innovations,” Alphabet expects to be compensated monetarily, beyond the considerable gains to be had from the selling of resident data (on which more below). Following a proposal to construct a light rail line, the company expects to collect a share of property taxes and development fees, which would otherwise be collected by the city and used for the provisioning of public goods (The Canadian Press 2019). This seems to be as clear a case of accumulation by dispossession as any involved in the project as a whole.

MARKETIZATION

Neoliberal themes of adaptation, flexibility, and quantification—the “marketization” of the city—pervade the Sidewalk Toronto project. Sidewalk Labs bills the Quayside as “the world’s

first neighbourhood built from the internet up.” In a public report on the company’s vision, it invites readers to imagine a number of futuristic scenes: a retail store converting to house artists in a “flexible building pilot,” passengers taking a test-ride on “a self-driving shuttle,” citizens using digital kiosks to “provide feedback” on urban planning decisions, and an “urban innovation institute” full of bright young “entrepreneurs itching to solve the toughest problems facing cities.” Quayside innovations, the report assures us, will not stay confined to the neighbourhood: they will spread across the Eastern Waterfront district, and eventually the world, revolutionising urban space as they go. The document promises a reorientation of public transit toward self-driving vehicles, a district-level adaptive energy grid, and low-cost, quickly-built modular housing as a solution to shortages to affordable living space, making the implicit argument that high transit, energy, and rent prices in Toronto are essentially technological problems. Sidewalk Labs asserts that, just as Silicon Valley is the hub of digital technology and New York the hub of finance, the Eastern Waterfront district will become the hub of “urban innovation.” No mention is made of the current living conditions that prevail in either of these two existing hubs. “The world,” the company claims, “sits on the cusp of a revolution in urban life every bit as transformative as the arrival of the steam engine or electricity” (Sidewalk Labs 2017, 15). The words “flexible” and “flexibility” appear on no less than 66 pages, at frequencies of up to 5 usages per page. All of these sweeping claims deserve closer inspection.

“Flexible” housing is a key part of Sidewalk Toronto’s plan. The company envisions mixed-use modular buildings which will shift with market demand, from residences to businesses, retail to service, expanding and contracting in time with trends in consumption and production. The key obstacles in the way of this revolution, the reader is assured, are “outmoded regulation” and inefficient, “inflexible zoning and static building codes” (Sidewalk Labs 2017, 20, 27) The buildings themselves are symbolic of the process of marketization, where “all that is solid melts into air,” stability is overturned, and traditional patterns dissolved

in the quest for greater profits. Nowhere in the vision document is the idea that residents may not actually *want* to live in a constantly-shifting environment without a fixed identity or character. Alphabet's plan for the Quayside somewhat resembles the "liquid modernity" of Zygmunt Bauman, a continually morphing and unstable world which in the end is absolutely rigid and constricting in its devotion to the laws of the marketplace (2000, 4–5).

These flexible buildings will be prefabricated, and constructed out of low-cost materials like timber, which the company claims will reduce rental prices. This is keeping with the company's view of housing shortages as an essentially technological problem, and is entirely specious. High housing and rental prices in Toronto have nothing to do with the quality of the building materials used. They are the result of the financialization that has affected every sector of the Canadian economy, producing systemic waves of disinvestment and neglect followed by reinvestment and speculative asset-price inflation. Building timber housing will not affect this trend. (August and Walks 2018, 11; Sidewalk Labs 2017, 26, 29).

Sidewalk Toronto also proposes several forms of Google-mediated civic engagement. Residents will be encouraged to provide "feedback" and form neighbourhood groups and peer-to-peer markets through a variety of Alphabet products. Playing into neoliberal discourse on the desirability of endless options, the vision document notes that Toronto already has a service for providing feedback—311—but that it wishes to provide an additional portal for communication with officials (Sidewalk Labs 2017, 19–20). It can be expected that, as is the case with all Google products, this will provide the company with another avenue for data collection. In addition, public feedback programs are not ideologically neutral: in Flint, Michigan (to take just one example), the public consultation process was used as a method of manufacturing popular legitimacy for a radically technocratic, undemocratic urban planning process, "orienting participation toward the naturalization of existing urban inequalities" (Lederman 2019, 11–12).

Finally, the company does not expect its experiments to stay confined to the Quayside. It intends for them to be marketed and spread world-wide, and emphasizes that several of its ideas would not make financial sense unless implemented on a scale larger than the neighbourhood (Sidewalk Labs 2017, 17). As Susan Moore shows, the dissemination of planning methods, technology, and techniques as “best practice” constitutes a universalizing and hegemonic ideological project, spreading its values and conceptions as part of a “neutral” policy toolkit (Moore 2013, 2383). The mere existence of Sidewalk Toronto is likely to provide Alphabet with some forms of this normative legitimacy, which will help it spread its agenda further. In addition, this “best practice” would not be provided for free. The spread of Sidewalk Toronto’s methods is a project towards the packaging and selling of the city itself (represented here by the data collected from residents of the Quayside).

BEHAVIOURAL MODIFICATION

Sidewalk Toronto promises a city wired explicitly for data collection. The company’s vision is of a networked city filled with sensors of every type imaginable, collecting data on (among many other examples) traffic flows, personal location, behaviour patterns, energy usage, civic engagement, use of public services such as education and health facilities (Sidewalk Labs 2017, 17–18). Collected data will be used to “personalize” the city experience, and will guide management and planning. Beyond the privacy implications of smart city data-collection, which are legion, Alphabet’s long-term strategy for the collection and usage of personal data “exhaust” remains to be revealed. Predictive advertising is an extraordinarily profitable business: Alphabet brought in revenues of close to \$40 billion in the fourth quarter of 2018 alone, with the vast majority coming from advertising (Salinas 2019). A growing number of critics assert that big data companies, led by Alphabet, have greater ambitions. If predicting behaviour can increase profits through greater targeting of advertising, then it stands to reason that *modifying* behaviour presents an even greater opportunity for profit. This goal is

in keeping with neoliberalism as a hegemonic project, one which seeks to present its ideology as “common sense,” reorienting behaviour to the benefit of capital (Harvey 2007, 22).

It can be argued that behaviour has always been modified under capitalism, and this would constitute an evolution instead of a break with the system (Morozov 2019). However, the unprecedented scale and invasiveness of such a project, and the limitations on possible resistance, can certainly be regarded as new in form. In this context, Sidewalk Toronto is at the frontline of the establishment of an intensified model of capitalism which bears only cursory resemblance to the one now extant. Shoshana Zuboff, Charles Edward Wilson Professor of Business Administration (Emerita) and a Faculty Associate at the Berkman Center for Internet and Society at Harvard Law School, calls this new model “Big Other.” If this project is successful in its goal to create a system where human behaviour can be modified *en masse*, she asserts, it will mean no less than the ending of individual freedom, and the creation of a new god (Zuboff 2015, 81).

While these claims are interesting, it is not necessary to accept the most radical form of Zuboff’s thesis to arrive at alarming conclusions. Recent studies have shown that the kinds of control exercised by Alphabet over the flow of information can have marked effects on individual behaviour. The researchers conducted an experiment wherein participants were given biased information about a political candidate through a search engine, and then asked to vote. They observed that there was not only a shockingly powerful correlation between the information provided and the voting tendency of the subjects (20%, and higher in some cases), the biased information could also be disguised so that subjects were affected but unaware (Epstein and Robertson 2015, E4512). In another experiment performed on over half a million people without their consent, researchers at Facebook found that they were able to manipulate user emotions by suppressing or boosting posts associated with certain emotions, creating

chains of emotional “contagion” across the social network (Kramer, Guillory, and Hancock 2014, 8788). The provision of information, currently undertaken by enormous for-profit corporations with almost no public oversight, is clearly not a neutral tool. Sidewalk Toronto would represent a goldmine for Alphabet, allowing it to further train its algorithms with real-world data, and bringing it closer to the goal of prediction and modification of social behaviour for profit. Even if Zuboff’s “apotheosis” idea is overstated, the implications of this project are dire, and deserve at the very least an honest public hearing before it is decided that Toronto’s tax dollars will contribute to its realisation.

Sidewalk Toronto is a nearly perfect example of neoliberal urbanism. First, it is a reordering of power relations from government to business, resembling in this respect David Harvey’s idea of “accumulation by dispossession.” Second, it marketises aspects of urban life (such as the physical shape of neighbourhoods, the configuration of buildings, the provision of public services, and the interaction between government and citizens) which had not previously been fully marketised. Third, it constitutes a particularly invasive and radical extension of the neoliberal hegemonic project, seeking to reshape popular conceptions of the urban, and potentially to control behaviour on a massive scale. Each of these aspects demands close public scrutiny and careful analysis, and the city of Toronto has failed in this respect. Its citizens are about to become the non-consensual subjects of a vast urban experiment, forced to live out the waking consequences of Eric Schmidt’s dreams.

References

- Albino, Vito, Umberto Berardi, and Rosa Maria Dangelico. 2015. "Smart Cities: Definitions, Dimensions, Performance, and Initiatives." *Journal of Urban Technology* 22(1): 3–21.
- Arrighi, Giovanni. 2010. *The Long Twentieth Century: Money, Power, and the Origins of Our Times*. "New and updated ed."-- Cover. London ; New York: Verso.
- August, Martine, and Alan Walks. 2018. "Gentrification, Suburban Decline, and the Financialization of Multi-Family Rental Housing: The Case of Toronto." *Geoforum* 89: 124–36.
- Bauman, Zygmunt. 2000. *Liquid Modernity*. Cambridge, UK : Malden, MA: Polity Press ; Blackwell.
- Dingman, Shane. 2017. "With Toronto, Alphabet Looks to Revolutionize City-Building." *The Globe and Mail*. <https://www.theglobeandmail.com/report-on-business/with-toronto-alphabet-looks-to-revolutionize-city-building/article36634779/> (February 18, 2019).
- Epstein, Robert, and Ronald E. Robertson. 2015. "The Search Engine Manipulation Effect (SEME) and Its Possible Impact on the Outcomes of Elections." *Proceedings of the National Academy of Sciences* 112(33): E4512–21.
- Evans, Bryan M, and Carlo Fanelli. 2018. *The Public Sector in an Age of Austerity: Perspectives from Canada's Provinces and Territories*. Montreal: McGill-Queens University Press.
- Harris, Mark. 2018. "Exclusive: Arizona Governor and Uber Kept Self-Driving Program Secret, Emails Reveal." *The Guardian*. <https://www.theguardian.com/technology/2018/mar/28/uber-arizona-secret-self-driving-program-governor-doug-ducey> (April 6, 2019).
- Harvey, David. 1989. "From Managerialism to Entrepreneurialism: The Transformation in Urban Governance in Late Capitalism." *Geografiska Annaler: Series B, Human Geography* 71(1): 3–17.
- . 2007. "Neoliberalism as Creative Destruction." *The ANNALS of the American Academy of Political and Social Science* 610(1): 21–44.
- Hawkins, Andrew J. 2017. "Alphabet's Sidewalk Labs Strikes Deal to Turn 800 Acres of Toronto into an 'Internet City.'" *The Verge*. <https://www.theverge.com/2017/10/17/16488942/alphabet-sidewalk-labs-toronto-quayside> (March 12, 2019).
- Hayek, Friedrich A. 1978. *The Constitution of Liberty*. Chicago: The University of Chicago Press.
- Kofman, Ava. 2018. "Google's 'Smart City of Surveillance' Faces New Resistance in Toronto." *The Intercept*: 12.

- . 2019. “Google’s Sidewalk Labs Plans to Package and Sell Location Data on Millions of Cellphones.” *The Intercept*: 9.
- Kramer, Adam D. I., Jamie E. Guillory, and Jeffrey T. Hancock. 2014. “Experimental Evidence of Massive-Scale Emotional Contagion Through Social Networks.” *Proceedings of the National Academy of Sciences* 111(24): 8788–90.
- Lederman, Jacob. 2019. “The People’s Plan? Participation and Post-Politics in Flint’s Master Planning Process.” *Critical Sociology* 45(1): 85–101.
- Mascarenhas, Michael. 2007. “Where the Waters Divide: First Nations, Tainted Water and Environmental Justice in Canada.” *Local Environment* 12(6): 565–77.
- McBride, Stephen, and Bryan M. Evans, eds. 2017. *The Austerity State*. Toronto: University of Toronto Press.
- McLeod, James. 2019. “‘Most People Don’t like Change’: CEO of Sidewalk Labs Says Criticism of Project Was Inevitable | Financial Post.” *Financial Post*. <https://business.financialpost.com/technology/most-people-dont-like-change-ceo-of-sidewalk-labs-says-criticism-of-project-was-inevitable> (March 12, 2019).
- Metz, Cade, Brian Dawson, and Meg Felling. 2019. “Inside Google’s Rebooted Robotics Program.” *The New York Times*. <https://www.nytimes.com/2019/03/26/technology/google-robotics-lab.html> (April 6, 2019).
- Moore, Susan. 2013. “What’s Wrong with Best Practice? Questioning the Typification of New Urbanism.” *Urban Studies* 50(11): 2371–87.
- Morozov, Evgeny. 2017. “Google’s Plan to Revolutionise Cities Is a Takeover in All but Name.” *The Observer*. <https://www.theguardian.com/technology/2017/oct/21/google-urban-cities-planning-data> (February 16, 2019).
- . 2019. “Capitalism’s New Clothes.” *The Baffler*. <https://thebaffler.com/latest/capitalisms-new-clothes-morozov> (February 16, 2019).
- Peck, Jamie, and Adam Tickell. 2002. “Neoliberalizing Space.” *Antipode* 34(3): 380–404.
- Reuters. 2019. “Alphabet Unit Seeks Share of Property Taxes for Toronto Smart City.” *Reuters: Business News*. https://www.reuters.com/article/us-alphabet-canada/alphabet-unit-seeks-share-of-property-taxes-for-toronto-smart-city-idUSKCN1Q423Z?utm_source=applenews (February 16, 2019).
- Rider, David. 2018. “The Risks of Becoming a Google City | The Star.” *thestar.com*. <https://www.thestar.com/news/gta/2018/03/02/the-risks-of-becoming-a-google-city.html> (February 18, 2019).
- Said, Carolyn. 2018. “Exclusive: Tempe Police Chief Says Early Probe Shows No Fault by Uber.” *San Francisco Chronicle*. <https://www.sfchronicle.com/business/article/Exclusive-Tempe-police-chief-says-early-probe-12765481.php> (April 6, 2019).

- Salinas, Sara. 2019. "Alphabet Drops After Revealing Declining Advertising Prices and Rising Costs." *CNBC*. <https://www.cnbc.com/2019/02/04/alphabet-earnings-q4-2018.html> (April 6, 2019).
- Sidewalk Labs. 2017. *Sidewalk Labs: Vision*. Toronto: Sidewalk Labs. Public Report.
- The Canadian Press. 2019. "Sidewalk Wants Cut of Property Taxes and Development Fees for Quayside Project." *CBC*. <https://www.cbc.ca/news/canada/toronto/sidewalk-labs-taxes-fees-1.5020936> (April 6, 2019).
- Wakabayashi, Daisuke. 2018. "Self-Driving Uber Car Kills Pedestrian in Arizona, Where Robots Roam." *The New York Times*. <https://www.nytimes.com/2018/03/19/technology/uber-driverless-fatality.html> (April 6, 2019).
- Zuboff, Shoshana. 2015. "Big Other: Surveillance Capitalism and the Prospects of an Information Civilization." *Journal of Information Technology* 30(1): 75–89.