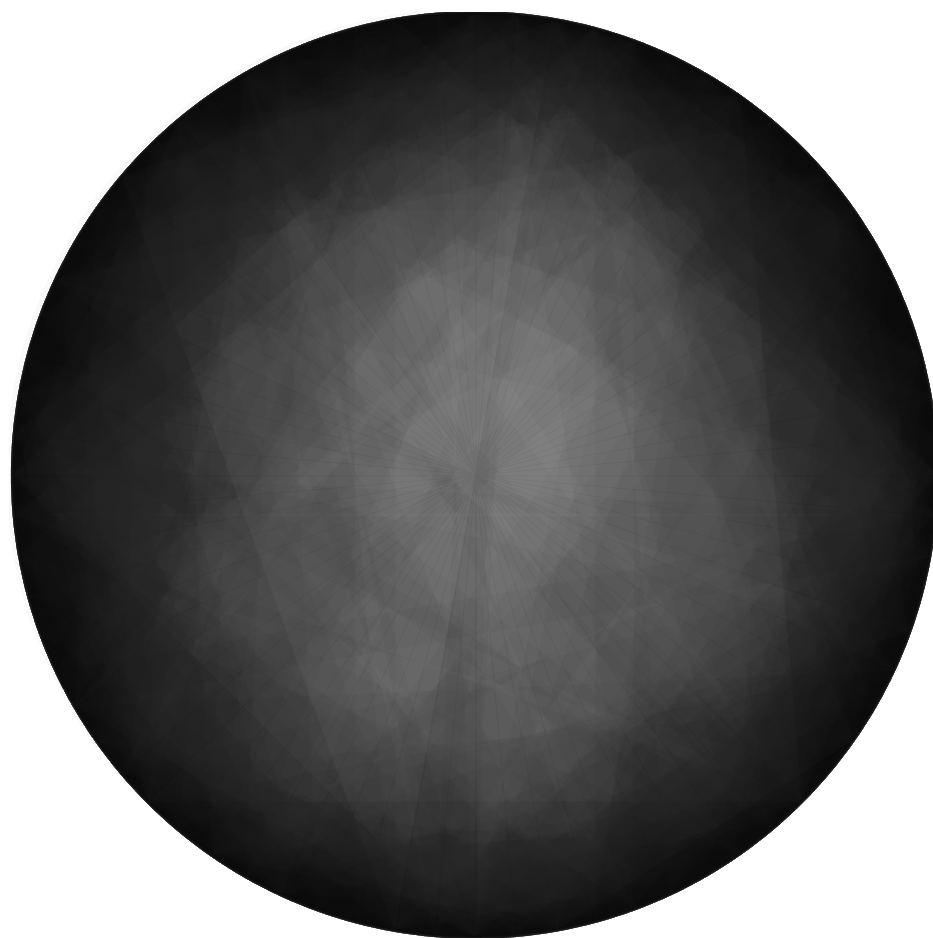


SOME THOUGHTS...



Over the past two years, Sidewalk Toronto has brought some important questions about cities – and our collective futures – into sharp focus. Some of those questions are new; others we've been asking for a long time. This is a collection of ideas to help build on and continue these discussions.

We asked contributors for a short, standalone description of an idea, policy, strategy, or best practice that might expand this conversation about cities. The people we asked met three basic criteria: a) people that have shown an interest in contributing to the discussion b) people that have a history of participating in public discourse and c) people with an explicit mission of inclusivity in their work. This list of contributors is not comprehensive or complete.

Within the collection there are conflicting ideas and world-views, which is exactly the point: to open up dialogue and create the largest possible tent to discuss what we want to see in our cities and spaces and how we might make those things happen. Our hope is that this convening will make space for more collaboration and conversation in the future.

The entries are presented in tables, to represent conversations that might happen over a meal. The entries can also be found at www.some-thoughts.org. We have immense gratitude to the contributors for sharing their thoughts quickly, and with an openness to debate.

Thank you for taking the time to engage with us all.

Nasma Ahmed
Matthew Claudel
Zahra Ebrahim
Christopher Pandolfi
Bianca Wylie

Toronto, 2019

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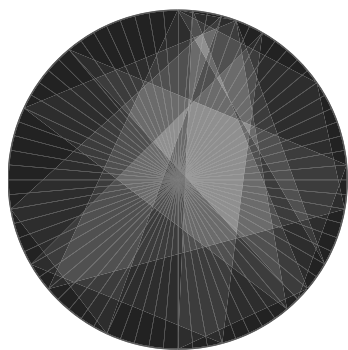


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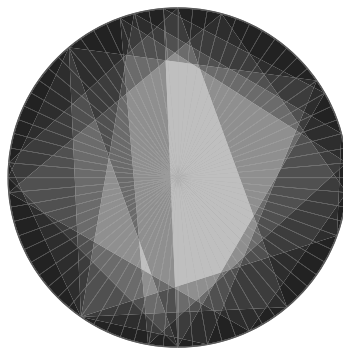


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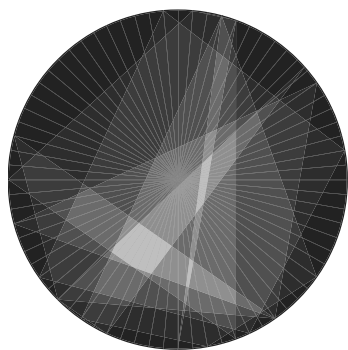


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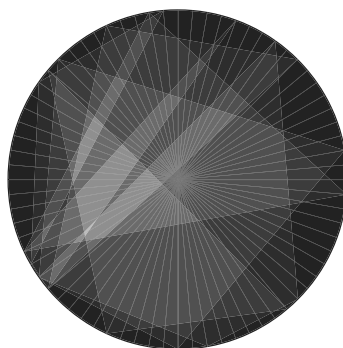


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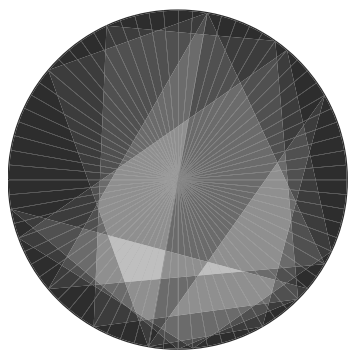


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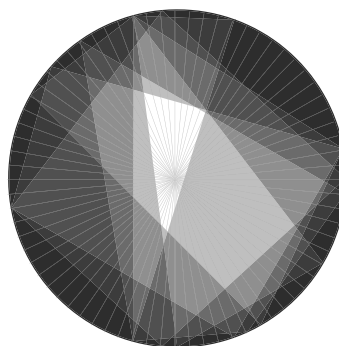


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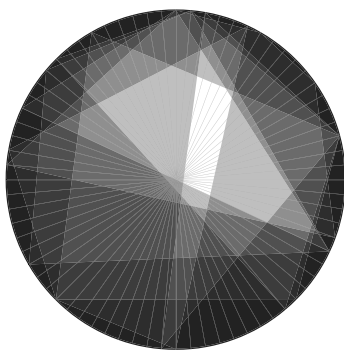


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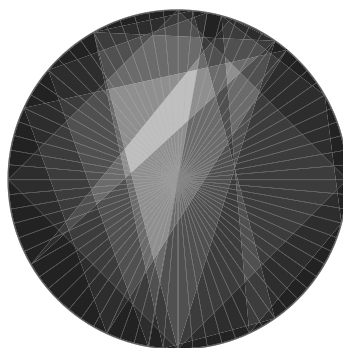


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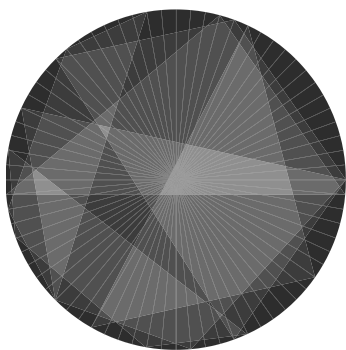


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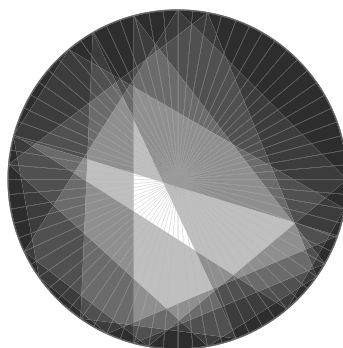


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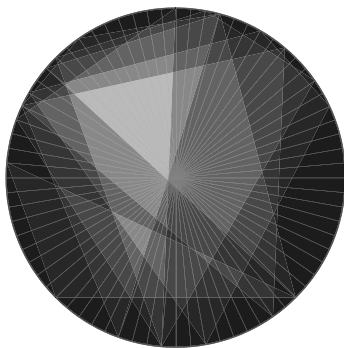


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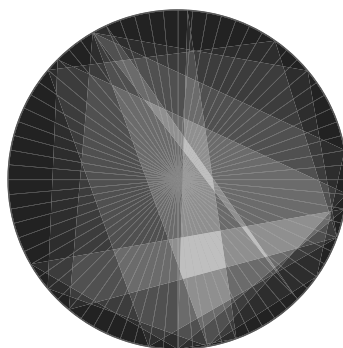


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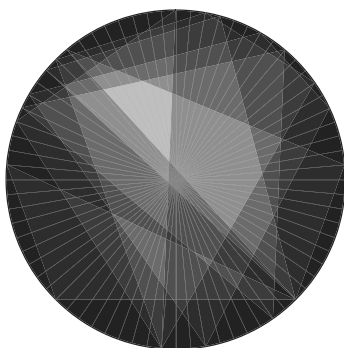


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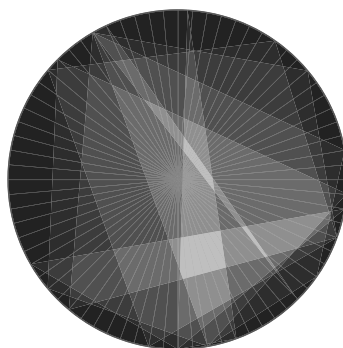


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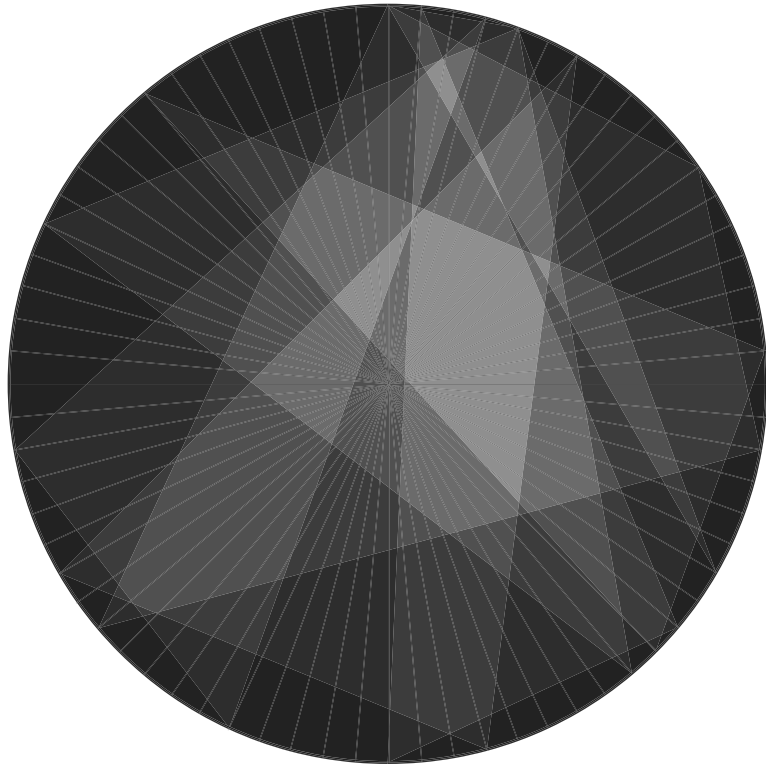
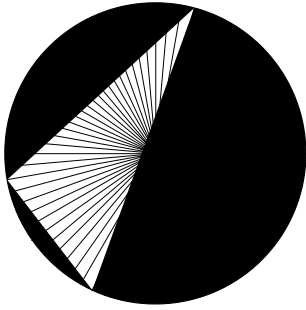


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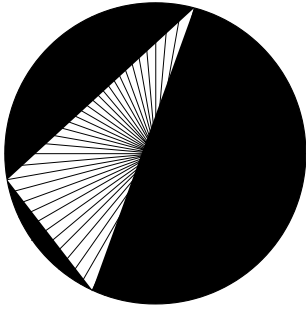
COLONIALISM, CITY-BUILDING, AND WHAT COULD BE NEXT?

[Justin Wiebe](#)

In an era of constant flux, where the historical and ongoing harms against Indigenous people are slowly being recognized and pursuits of reconciliation are at least being spoken of, we find ourselves - Indigenous and non-Indigenous people - pretty urban. Before the hustle and bustle of cities like Saskatoon, Edmonton, Vancouver, and Toronto, these places were, and continue to be, important sites for gathering, berry picking, fishing and hunting, practicing ceremony, and burying the dead. For Indigenous people, Black people, and many other communities of colour, cities often represent opportunity and connection, while simultaneously being sites of exclusivity, displacement, and destruction. We must collectively remember this.

City-building in what is currently called Canada is intimately connected to colonialism. Urban planning was and continues to be a tool - here and around the world - of colonization. The building of cities was critical for Canada to displace Indigenous peoples and assert its sovereignty over lands. Cities, at least western “planned” ones, were viewed as enlightened and civilized spaces. Which of course, to the planners and elected leaders, was in direct opposition to the “savage Indian.” As a result, many attempts have been made to force Indigenous peoples off our lands and out of the cities onto reserves or road allowances. Despite these attempts, Indigenous peoples have never left our territories and today over 50% of Indigenous people live in urban centres.¹ Despite the emergence of more community-minded approaches to planning, those divisive and colonial mindsets can still be found in planning today, but the future of cities doesn't have to look this way.

We must start by learning and recognizing the histories – human and non-human – of the lands the city is built on. Meaningful relationships with the Indigenous Nations whose territory the city is built on and the Indigenous people who have made the city home are critical. City-builders, planners, and urbanites must work to ensure Indigenous Nations and people are engaged from the beginning, where our perspectives are not only heard but foundational to the development, design, and vision for the future of the city.



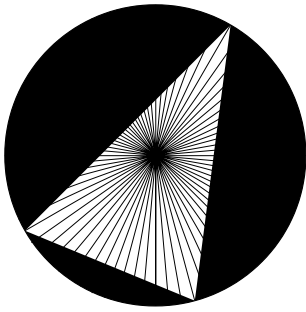
COLONIALISM, CITY-BUILDING, AND WHAT COULD BE NEXT?

[Justin Wiebe](#)

The Indigenous Planning and Design Principles² offer a useful framework for working differently. First, we must recognize the interdependence and interconnectedness of everything and from there:

- Commit to Relationship and Listening
- Demonstrate Culturally Relevant Design
- Respect Mother Earth
- Foster a Sense of Belonging and Community
- Embrace a 'Seven Generations' View³

We can also utilize tools like [Whose.Land](#), [Native Land](#), [First Story Toronto](#), and others to gain deeper insights into the histories, treaties and agreements, and languages that cover the territories the city is built on. Rethinking the ways we build and plan for cities is critical to all people's well-being. If we can find meaningful ways to integrate different knowledge systems, and in particular those Indigenous knowledge systems that have been developed over generations in relationship with the lands and waters here, our cities will be vibrant, inclusive, and prosperous for all.



‘SMART’ CITIES BEGIN AT THE NEIGHBOURHOOD LEVEL

[Aliya Bhatia](#)

In the smart-city era, cities are teaming up to learn from each other. They are extolling the virtues of creating data dashboards, sharing notes on how best to forge public-private partnerships, and comparing approaches to deploying free, accessible and reliable broadband. Entire conferences are dedicated to smart cities and CTOs are being traded across North America with the same vigour and excitement of the NBA draft season.

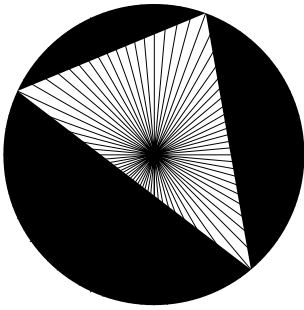
But cities are big. And by taking a birds-eye view in Toronto, New York, and other large complex cities, we miss the real lessons on civic participation, innovation, and building capacity that are products of each and every individual neighborhood. So this is a letter of recommendation for hyperlocal smart cities that identify innovations at the neighborhood level.

Take for example [Regent Park Television](#), a twenty-four hour closed circuit community television station programmed and operated by the [Regent Park Focus Youth Media Arts Centre](#). The Centre has a mission to reach as many people as possible, fills the void of content created for and by the community, and equips young residents aged 15-29 with the television broadcasting skills required for them to share their own stories and potentially launch their careers.

Next, consider the cooperative broadband model of the Red Hook mesh network in Brooklyn, New York, which provides free and reliable access to the Internet for community members. It was built with resilience in mind, created as a sustainable response to Hurricane Sandy, which devastated the region in 2012.

A third and final example is Silicon Harlem, a for-profit organization in Harlem, New York, that runs coworking spaces to help launch local entrepreneurs, and hosts accelerator programs for Black and Brown youth to prepare for technology certification exams. This past summer they ran a drone accelerator program. It was designed to prepare high school students aged 16 and up to take the certification exam at LaGuardia, and includes an assignment that asks students to write a paragraph on Harlem and its history so as to not forget which constituents they might serve and affect in their future careers.

These are just a few examples of neighborhood level innovation that are tailored to the neighborhood's needs and constituents, cognizant of unique characteristics and limitations, and that bake participatory practices into the deployment of technology. These are examples that make me think that there is more for Harlem to learn from Regent Park, and Red Hook to learn from the Mission district in San Francisco at a granular level than pursuing a macro-perspective between New York and Toronto. The need for hyperlocal engagement is here and with it the potential for a true smart city — a city full of smart neighborhoods and safe residents.



CULTURAL HOMES IN CITIES

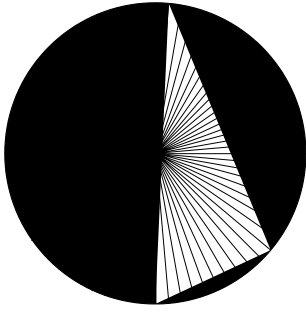
[Shishani Vranckx](#)

What's needed in our cities are safe spaces, especially for children, to play and be kept an eye on. In these safe spaces we need people that speak their language, understand their culture, understand their needs and interests. This gives parents time to breathe and relax, and to have fun too. I suggest a cultural space, I'd rather say a 'cultural home', located in the areas where people need them, where they are accessible, and where they feel welcome: the architecture and image of the space must appeal to the people it will be hosting.

These cultural homes need loving people to run them, and facilitate activities. Artists are perfect for this, as they are hard and dedicated workers, mostly devoted to raising social awareness and cohesion. They also need stable jobs to provide income. These cultural homes should have instruments, drawing utensils, dancing, movie projectors, and sports equipment. Group activities – music & sport – can bring people from all types of backgrounds closer together, and create social bridges. Such cultural homes should be places people feel they can go to anytime ('feeling at home'). Here they can develop themselves artistically, socially, and physically. These spaces should be accessible for those with impediments as well. To have a great city, people need to be able to come together and do things together, and focus should be on the arts.

Under the Blue Door

Through our own experiences as musicians that collaborated with the San, we saw a community increase their sense of self worth because we came to them, and invested our time, energy and love into their culture when we performed together. Youngsters started to look up to their (grand)parents' music and dance in another way. It took effort to find ways to communicate and gain each other's trust. It would not have happened at the level it did without making music, dancing and sharing meals together.



CIVIC DATA TRUSTS

[Sean McDonald](#)

The Basics

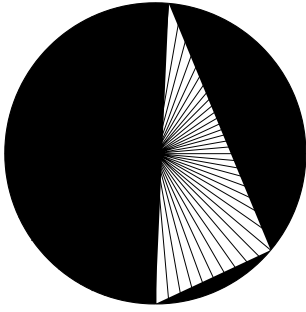
Toronto's Civic Data Trust (TCDT) is organized as an oversight mechanism for a number of smaller, more temporary data governance experiments - each of which are, also, legal civic data trusts. The TCDT's purpose is to ensure the equitable representation of Toronto's stakeholders in determinations about the collection, use, and re-use of data under public license. The TCDT is governed by a multi-stakeholder group of trustees, based on their affiliation with, or elected representation of, communities.

How it Works

The TCDT, in partnership with City Council, local civil society organizations, and businesses, will administer a quarterly public consultation and prioritization around key public issues, with potential digital solutions. The idea generation and prioritization process would work similar to participatory budgeting, and include the kinds of expert inputs and public voting common in a wide range of participatory and administrative consultation processes. Once problems are identified, the TCDT would release RFPs that define the problem and the scope, as well as a limited set of research subsidies, available and/or accessible data resources, and a structured experimentation process to develop solutions. These could be administered as public, formal procurements, or designed as collaborative project design processes - based on the TCDT's discretion and experience over time.

The TCDT either evaluates - or appoints an evaluation committee that's specific to the problem - proposals and grants the award to a Civic Data Trust, who oversees the project administration. The goal of the Civic Data Trust is to ensure the integrity of the project and research and development processes, toward establishing an initial set of hypotheses, pilots, and innovative solutions to relevant civic problems.

The Civic Data Trust is a short-term legal entity whose purpose is to ensure the due process and interests of the stakeholders to each public priority. The activities would be to draft appropriate data licenses, including intellectual property terms that reflect and reward public investment, for each development project. In addition, however, Civic Data Trusts would enforce meaningful opt-in and opt-out processes, dispute resolution for the harms caused during testing, and a set of contextual validation requirements, to make sure that each tool proves that it works as intended before deploying it in public settings.



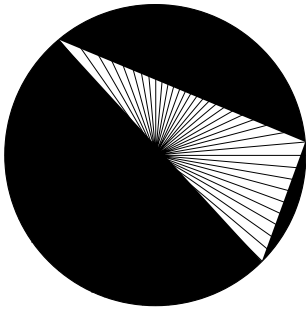
CIVIC DATA TRUSTS

[Sean McDonald](#)

Civic Data Trust

Once solutions are developed, data requirements are established, and the impact on the public is understood and warranted, a Civic Data Trust creates a rating and a recommendation back to the TCDT. Based on that rating and warning, the TCDT would make a recommendation to City Council, and/or any other implicated authorities, for a series of data collection requirements, oversight investments, and contractual limitations necessary to realize the benefits of high-performing solutions.

The defining goal of the TCDT is to help engage the public in its investments in digital solutions to public problems - and acts as an expert administrator, similar to the way that [Sustainable Technology Development Canada](#) operates. The Civic Data Trust is an independent entity, funded by public taxes at the provincial level. It receives additional funding from privacy regulator fines, public judgments against companies, and commercial assets created through operation.

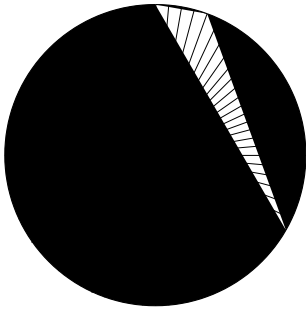


INDIGENOUS DESIGN, INFINITE CAPITAL

[Dr. Walter D. Greason](#)

For almost three generations, scholars and activists have attempted to craft an intellectual framework to redesign civilization in ways that dismantled colonialism and reversed the consequences of slavery and genocide. This work received little attention through the first half of the twentieth century, but the artistic and popular movements for equity and democracy after 1945 made new areas of inquiry possible by 1968. A conservative rearguard organized an ongoing campaign of political movements that have produced the rise of global authoritarian fascism since 2010. A radical agenda supported by a broad anti-authoritarian coalition can dismantle these threats to freedom worldwide, especially if focused on the ways that digital capitalism attempts to consolidate with no consideration for ethics, humanism, and individual dignity. The heart of the agenda is the restoration of indigenous land and development rights across the western hemisphere and the global south. These efforts must network at the local level with an adaptive set of commitments to solidarity. Breaking the digital and industrial monopolies that have emerged since 1994 is the single largest priority, but transforming the legal landscape to reward labor, migration, and sustainability will also meet the crises related to climate change.

This transformation will rely on systems of digital commerce that develop outside the frameworks of worldwide central banking. Decades of erroneous macroeconomics have enabled the concentration of finance capital in ways that reduce people to units of value. These core assumptions predate the formation of imperial and national capitalist systems. Thousands of indigenous systems of commercial exchange affirmed the inherent value of individuals, families, and communities. Efforts to return these commitments to center of local and regional development will undermine the tyranny of capital, while also creating new opportunities for local sovereignty based on the limitless capacities of human imagination.



ECONOMIC DEVELOPMENT: FROM BIG TO SMALL AND BACK AGAIN

[Anthony Townsend](#)

Big is bad, small is beautiful. Urban planning learned this lesson the hard way more than a half-century ago. The tech industry is relearning it today as it ventures into city-building.

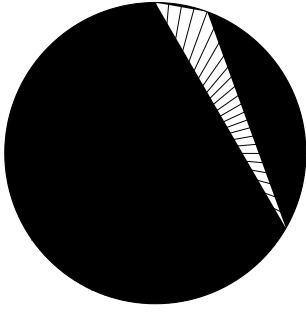
Consider the most exciting new places for urban innovation. Station F in Paris, a massive tech hub, aims to gather 1,000 startups under one roof. New Lab in Brooklyn turned an old shipbuilding complex into an idea factory for small firms and professional networks. These places achieve the scale of the old corporate towers and technology parks. But instead of clear-cutting obsolete buildings to make way for monotonous walls of glass, they re-purpose history's shells to provide an artificial reef for lots of little efforts to take root.

Google, Facebook, and Amazon want to be here. But they're kept at a safe distance for good reason. They'd ruin the party. Silicon Valley works on a myth that originated with Xerox PARC in the 1960s - that the R&D largesse of big corporate anchors produces knowledge spillovers enough for the whole region to feed from. But today's tech giants don't work this way. They don't disperse ideas and talent - they suck them in like black holes and lock them down with non-competes and predatory patents. In fact, it is their skill at stopping the leakage of ideas and talent that has powered their success.

What's worse, when tech giants come to cities, they often destroy the naturally occurring habitat of the creative types they so dearly seek. They snap up and snuff out promising homegrown startups, take talent off the market, and drive up the cost of office space and housing.

Economic development officials throughout North America haven't adjusted to these tactics, or even recognized just how much more these companies take than they give. They still compete to offer up steep discounts, tax breaks, subsidies, and dossiers of data about local talent. All in the cause of landing a deal with a big tech company. Amazon's HQ2 search didn't just fuel these insecurities, it preyed on them.

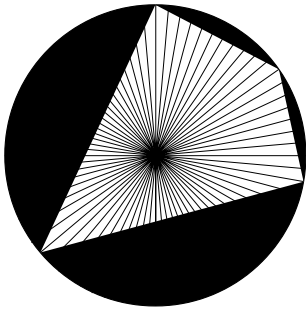
But the HQ2 fiasco asked the wrong question—do you have what it takes to be a tech headquarter? Instead, cities should ask themselves the same question that early stage tech investors have honed in on over the last decade--how do we create the conditions to increase the number and quality of startups?



ECONOMIC DEVELOPMENT: FROM BIG TO SMALL AND BACK AGAIN

[Anthony Townsend](#)

It's a challenging shift to make. Moving away from big deals and mega-projects requires economic development policy teams to think less like investment bankers and more like angel investors: increase deal flow while radically lowering transaction costs. And they'll have to find ways to communicate the collective impact of lots of little wins with the same vigour of today's big-deal press conferences. Cities that figure out how to do this effectively will turn the tables on big tech companies. They'll hitch their future to a more resilient ecosystem of small and medium-sized firms, instead of one big footloose corporation that doesn't share their interests or destiny. And they can start setting the terms for vetting companies, instead of the other way around.



PATENT COLLECTIVES

[Jim Hinton](#)

Intellectual property (IP) is the lifeblood of economic development in the innovation economy. Those that own and control rights to IP are able to benefit economically and allow others to share in that benefit. City technologies are underpinned by advances in artificial intelligence, software patents, well trained proprietary algorithms and diverse and deep data sets. Whether or not the patent system is fair or effective, it is a reality of global business. For Canadians to participate in the economic advantages of technology, Canadians must control innovation assets.

Historically, Canada has been a world leader in invention – the creation of IP, only to see foreign technology companies end up owning the IP when the innovation's economic benefits begin to return, with the resultant economic benefit being forever lost. Because IP is zero-sum – you either win and everyone else loses, or someone else wins and you lose – it has led to two separate but related problems for Canadians: a limited return on innovation investment and decreased freedom to operate. A strategically structured patent collective can ensure economic benefit across the Canadian innovation ecosystem and for future generations.

The patent collective will aim to reduce the asymmetry in IP position for new Canadian innovators. The patent collective will collectively pool global patent assets of strategic defensive rights. These rights will increase the freedom of Canadian companies to operate globally by both increasing access to defensive rights, thereby limiting the aggression of predatory patent holders, and retaining IP that has been generated by Canadian supported research.

As part of a comprehensive cities innovation strategy, the patent collective would also provide company level support for IP generation, separate from the pooled rights. Further, given the current limited sophistication around IP commercialization, the patent collective would increase IP knowledge and execution. These activities could also be paired with a robust sector-focused prior art library that would be a critical asset in reducing the ability of poor-quality patents to be asserted. It is only through a strategic and targeted patent collective that we can ensure that Canadians and the Canadian economy will benefit from innovation in cities.

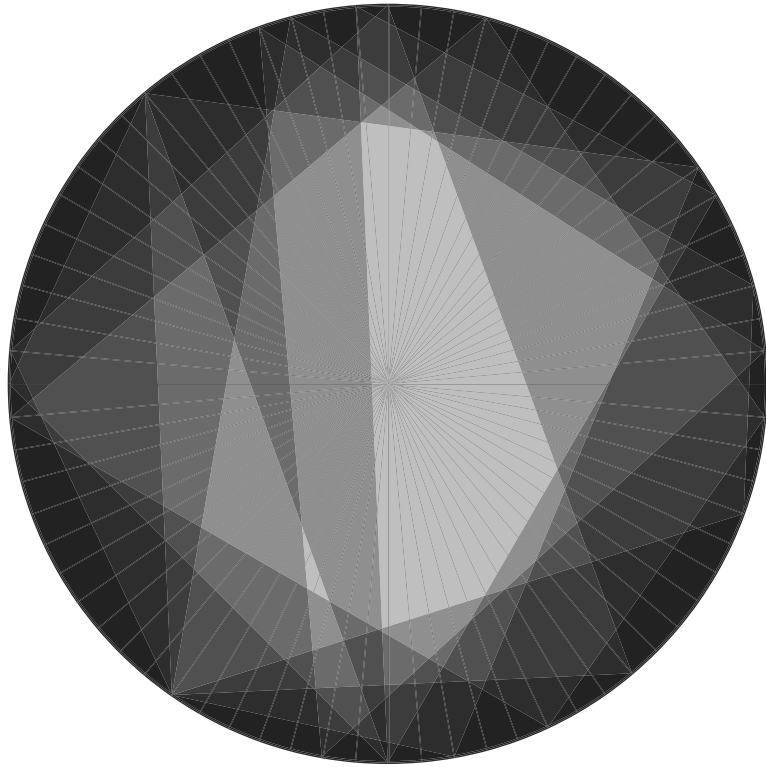
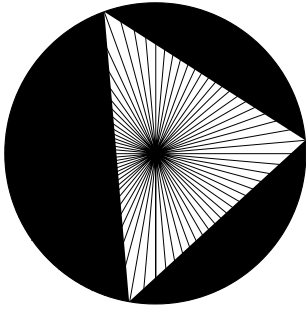


TABLE 2



NON-CITIZEN VOTING RIGHTS

[Desmond Cole](#)

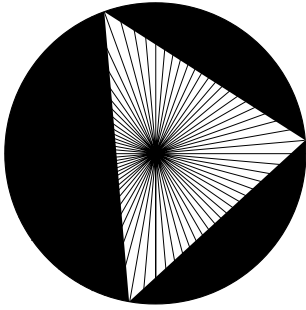
In any democracy, the right to vote for one's elected officials is fundamental. We don't force anyone to vote but, with very few exceptions, a democracy gives its people the chance to cast a ballot. Generally speaking, there are three categories of people in Canadian society who are not allowed to vote for a local representative: children, people in jail, and non-citizens.

For more than ten years, I've been advocating for non-citizen voting in elections, a practice common to democracies all over the world. Many Canadians find the proposal startling and suspect, and they liken non-citizens either to children, who aren't responsible enough to vote, or to incarcerated people, whose right to vote would erode the value of enfranchised people. We need to recognize the equal stake that newcomers have in our elections, and the basic injustice of denying them a voice in elections.

Non-citizen adults have as much stake in elections as citizens do. When we ask them to prove their stake by getting in a bureaucratic line and waiting years to be eligible to vote, we create a bogus hierarchy of civic investment. I earned my right to vote by being born in Canada, which was not my choice. When people come to Canada by choice, or are forced here for their own safety, they have as much investment in society as people who passively gained citizenship by being born in Canada.

Most of us become citizens and voters by default. The artificial act of saying we are more invested because of the accident of our birth is colonial, outdated, and unfair. We often uphold our privilege by suggesting non-citizens, like children, aren't ready to take on the grown-up responsibility of voting. Children who are citizens automatically get the vote if they pass the test of staying alive until age 18. Non-citizens, on the other hand, remain as permanent children if they don't pass a citizenship test that many Canadian-born people would surely fail. This "privilege has its privileges" approach is not only unfair and demeaning, it does nothing to improve elections or governance.

The other major and related argument I've heard in my years of campaigning for non-citizen voting is that it cheapens the vote of citizens. In this argument, which I liken to the disenfranchisement of people in jail or prison, voting is an exercise reserved for people of good moral character. In other words, we can't trust criminals and non-citizens with a vote. They must demonstrate their commitment to our presumed shared values by being denied the vote for an arbitrary and non-standardized length of time, after which we no longer need to scrutinize their goodness.



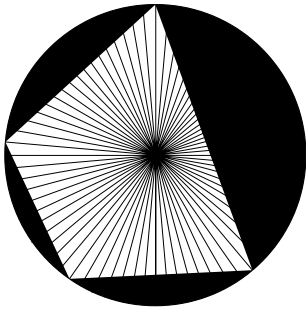
NON-CITIZEN VOTING RIGHTS

[Desmond Cole](#)

Interestingly, the history of voting for both prisoners and non-citizens has been inconsistent. Prisoners in Canada are currently allowed to vote in federal and provincial elections, but not in municipal elections. For the majority of Canadian history, non-citizens have been allowed to vote in municipal elections if they were British subjects, but these same individuals were barred from voting provincially or federally. I attribute these inconsistencies to the equally fuzzy logic that a person's right to vote should depend upon their social standing as a Good Person. Social participation is an inherent human need, and that need shouldn't be subject to society's shifting and inconsistent moral judgements.

There will always be people who want to pick and choose their ideal electorate. Prisoners only recently won the franchise in 2002 after the Supreme Court ruled that voting is a fundamental right. Similarly, people will continue to argue that lowering the voting age below 18 will be the death of us, even though minors can legally work, pay taxes, drive cars, and give testimony in criminal court. Privilege, they may well argue, must have its privileges.

But for the hundreds of thousands of Canadians who can't vote because they aren't citizens, the privilege to exclude offers no collective benefits for our country. As I've cited elsewhere, the most honest case for disenfranchising non-citizens came from Liberal MP Peter Mitchell, who argued in parliament that "I would give to everyone who has assumed the same position as the white man, who places himself in a position to contribute towards the general revenues of the country, towards maintaining the institutions of the country the right to vote." Mitchell said that in an 1885 debate on electoral reform - I'd like to think a country that prides itself on multiculturalism is ready to move on.



#ABOLISHCARS

[sava saheli singh](#)

The following text (italicized) is adapted from [a Twitter thread](#):

.....
there was an older woman in the grocery store today with a helmet which had a go pro (a camera) attached to the top. it made me uncomfortable. I asked her if it was recording and she replied "oh it wipes and records over", as though that made it ok?

By way of explanation, she said that she's almost been knocked over twice while riding her bike, so she went out and got one of these so that she has a record if/when it next happens. I understand that. and get why she feels better with her helmet cam.

her helmet cam, while a logical approach to her current problems, doesn't solve the larger issues of the tensions between bicycles and cars and pedestrians and skateboards and all the newfangled motorized vehicles, as we all jostle for space in our cities.

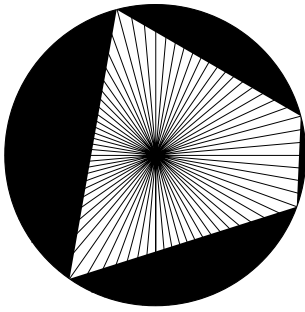
I mean if you asked me, I'd say remove all cars from cities, build with differently abled and disabled people as the main focus, pedestrians as the second focus, then have bikes and other non-car, human powered vehicles; and everything else is hugely accessible public transport.

(I mean if you asked me I'd probably say remove all cars from everywhere lol)
.....

We need to move away from believing that video surveillance is the solution to our problems.

In this example, the woman is trying to solve the problem of traffic and cars by recording her encounters with cars. This might help her if or when she does have an encounter with a car, but it doesn't address the problem of congestion, cars, and a tendency to build spaces that support car culture. Cities are increasingly turning to "smart city" solutions to tackle traffic, which are usually about capturing traffic data to control traffic flow. The "smart" solution to traffic is to move away from building for cars and towards building for pedestrian, bicycle (and other non-car modes of transport), and public transport.

Ultimately, cities are social, and most of the problems that cities face are social. Solutions for social problems should come from the ground up, through deep and long engagement with communities rather than from top-down surveillance systems.



DIGITAL NEW DEAL

[Milan Gokhale](#)

The political, social and economic compact we have made in our digital lives is broken — and it's time to start over.

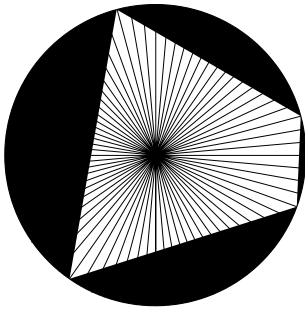
The Internet is in crisis.

In the early twentieth century, the New Deal became the best example of how to deliver financial and social reforms in a single bundle that the public will support. A century later, spurred by the grassroots mobilizing efforts of the Sunrise Movement, 350.org, Justice Democrats and more, there is renewed interest in a twenty-first century “Green” version of the New Deal that would deliver a political, social and economic compact with a specific focus on urgent action against catastrophic climate change. There are various policy proposals made under this premise; for example, the NDP recently announced its own version of the Green New Deal with a particular focus on free public transit.

Much like climate change, the Internet crisis is a man-made threat to global stability, caused by an unwavering commitment to perpetual growth that is incompatible with our social, physical and environmental limits. Like Big Oil, Big Tech works exceedingly well for a small, homogenous group of powerful people, but its negative, externalized effects — harassment, abuse, corruption, cheating, lobbying, discrimination, distrust — has now led to a global crisis of confidence. Modern technology, both in its production and its usage, has been weaponized as a tool of wealth preservation that has exacerbated global income inequality.

A good example of how to reform our usage of technology comes from newly elected New York Senator Julia Salazar. The technology plank of her election platform, developed in democratic consultation with the New York City chapter of the Tech Workers Coalition, lays out an excellent example of what an alternative technological political future could look like in Canada:

- Make high-speed affordable internet access available for all people in Canada, at the expense of telecom giants like Rogers and Bell.
- Fund neutral, high-speed, publicly-owned and operated municipal broadband infrastructure, as several Canadian cities already do.
- Extend collective bargaining rights, a living wage, full benefits and corporate protections to all Canadian “gig economy” contract workers, like those working at Uber, Foodora and Lyft. This kind of struggle has already begun by courageous workers at Foodora and Amazon.



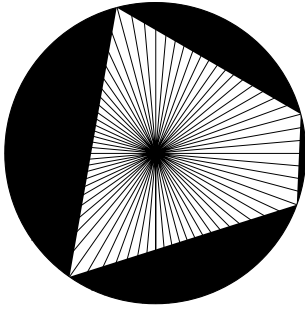
DIGITAL NEW DEAL

[Milan Gokhale](#)

- Legislate support for worker co-operatives to harness the power of the Internet in the service of working people. These “platform co-ops” would allow Canadian software developers, web designers and tech literate folks to work hand-in-hand with car drivers, food preparers, hotel wait staff and service workers to build local, democratically informed alternatives to Twitter, Facebook, Uber, Airbnb, and others.
- Update Canadian privacy and communication laws to protect unethical electronic surveillance from a range of public and private actors, including police forces, immigration agencies and corporations.
- Ensure that technology companies contracting with all levels of government abide by standards of algorithmic transparency and data privacy (e.g. requiring open-source code and bias screening), so that no company can discriminate or spy on Canadian residents.
- End corporate tax breaks like SR&ED that amount to corporate welfare with a poor return on investment for the majority of people in Toronto and Canada.
- Force all tech companies to pay their fair share in corporate taxes, and reinvest that money into public technology jobs, infrastructure, and tools that allow Canadian provinces and cities to compete technologically with private companies and become self-reliant.

These ideas are not the only worthy policy ideas for consideration, and there are many ways to tailor these proposals to suit various communities. Plus, these proposals could only work as a single plank of an expansionist, progressive platform that was built in solidarity with other social movements. That includes a fight for child care that helps mothers who work or want to work in the tech industry. It includes a fight for faster, frequent mass transit that supports underrepresented tech workers systematically forced to live in transit deserts. It includes a robust library system that supports digital inclusion. It supports affordable housing for people displaced by shiny new tech offices in our downtown cores. These structural barriers are why the tech industry doesn't work for so many people.

A Digital New Deal will require a stronger, national conversation, but this is a starting point for how we restart the Internet and democratize the technologies that power our lives in the 21st century.



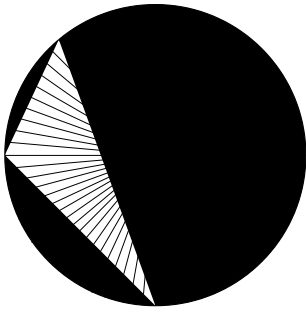
DIGITAL NEW DEAL

[Milan Gokhale](#)

This won't happen overnight. Political parties in Canada will not support this idea any time soon. The Green New Deal is a political governance framework that began with activists, residents, academics, unionists, artists and workers working to build a larger vision of how economic production and consumption must evolve in an environmentally just society. A Digital New Deal would require a similar groundswell of support. It will require building a lasting, powerful consensus that stops powerful tech industry interests through neighbourhood, grassroots, local, democratically informed organizing.

If the advent of the Internet taught us anything, it is how to think big. That's why Canadians can't only be thinking about technology in the context of the Google project on Toronto's waterfront, or how to develop a national smart city strategy. We need to think bigger. We need a new political, social and economic compact with a loud, sustained focus on a democratic usage of modern technology.

We need a Digital New Deal.



CAN'T WAIT

[Vass Bednar](#)

In tech, waitlists build hype and signal interest. In fact, the number of people signaling their attraction to your app can be used to raise millions of dollars and drive up the valuation of your company. Yeehaw!

In childcare, waitlists cause anxiety and perpetuate uncertainty. Each additional family jostling for a space reinforces how stretched the system is.

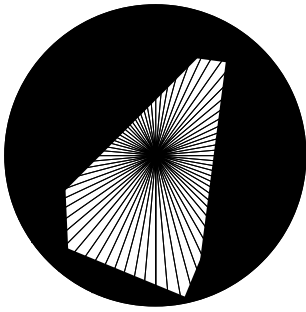
There is a substantial opportunity for civic technologists to build a digitized, centralized childcare waitlist for our municipalities that would transform the user experience. At present, only the City of Ottawa has a [centralized list](#).

Childcare centres - be they licensed or unlicensed, non-profit or for-profit - are rarely near work or our home, creating logistical challenges for parents. Further, parents are disadvantaged by lack of information, and childcare centres are predominantly independent institutions that have a huge coordination problem and a lack of incentive to fix it. In order to secure a space for a child and plan to return to work, parents add their names one-by-one to waitlists (sometimes paper-based) in their neighbourhood and then wait nervously for a phone call announcing a space that they can take-or-leave (meaning that some parents enrol their children earlier than planned out of fear that a subsequent space won't become available). It's disorienting and inefficient.

[Here](#) is a way to sign up for child care in Toronto. You have to type the name of the child care centres that you want to be waitlisted for. How is a parent supposed to know that? There's not even a map (I am not joking).

Given that we have waitlist systems for restaurants that offer a superior user experience, it's not difficult to imagine a public product that clearly communicated a "live" number for your name on a list so that parents can monitor their progress and gain some peace of mind.

I'm not saying that we should borrow other aspects of the waitlists we see utilized by tech companies to build hype; like moving up the list if you refer friends or demanding double-blind reviews. I am saying that product developers may be somewhat unaware of this need. The profit margins in the child care space are pretty slim. That doesn't mean that the sector and its stakeholders should suffer from information failure.



UNPLANNING THE CITY

[Jon van Nostrand](#)

“It’s always life that is right and architecture that is wrong”
Le Corbusier, 1942

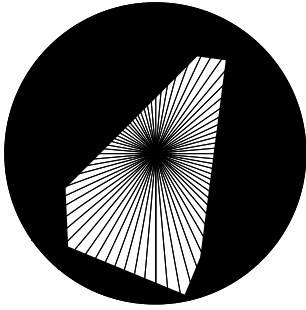
In 1950, 45-55% of urban households across Canada had built their own home. By 2000, this had been reduced to less than 2%. Cities before 1950 grew up within a grid pattern of agricultural lots that were gradually subdivided along emerging new streetcar corridors and sold off to individuals or small builders who built their home on a step-by-step basis, as their household and the city expanded.

Cities after 1950 were “fully planned” to accommodate completed housing and social facilities, including schools, parks and shopping centres which residents simply moved into. Changes to these houses were discouraged by restrictive zoning regulations.

In 2007, with thanks to David Hulchanski (see www.neighbourhoodchange.ca), we discovered that the “unplanned” neighbourhoods (48% of the city) within Toronto are occupied by majority middle- and upper-income earners, and the “fully planned” neighbourhoods (54%) by majority lower-income earners. In other words, before 1950, when original and new property owners working with land surveyors were more directly involved with settlement, the more likely their incomes were to rise. After 1950, when landowners of large assemblies, working with surveyors, planners and architects assumed responsibility to pre-planning land subdivision and pre-designing housing, the more likely residents’ incomes were to fall.

In light of the above, we need to take lessons learned from both these periods – the unplanned and the fully-planned - to create a new balance between land-use planning frameworks and the zoning which enacts them - as these are put in place by governments; and the individual initiatives of land-owners and builders to accommodate themselves within these frameworks. We need to:

- Render planning and zoning regulations more visible through “how-to” on-line manuals that target existing individual landowners/developers and builders.
- Prepare Neighbourhood Growth Plans for growing neighbourhoods that plan for their gradual densification over time and empower existing landowners/developers to participate alongside major developers in accommodating growth.



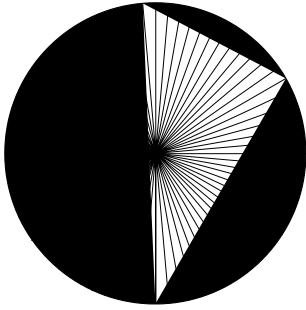
UNPLANNING THE CITY

[Jon van Nostrand](#)

- Based on these plans, focus municipal investment on the upgrading of existing engineering, transit and social services that define the public realm to accommodate growing and changing populations.
- Create more permissive (i.e. “as-of-right”) forms of zoning that broaden the range of permitted uses, champion mixed-use, and encourage both new construction and renovations-and-additions to existing structures.

Housing ourselves is Toronto’s largest economy, and the single largest wealth-builder for most families. The Canadian Home Builders Association and Altus have estimated that total construction activity in Ontario between 2010 and 2016 amounted to approximately \$240 billion. The contractor renovations-and-additions portion of this work amounted to roughly \$120 billion. Altus estimated that \$47 billion (i.e., 40%) of the latter can be attributed to the “underground economy”- meaning residential improvements carried out without building permits. An additional \$16 billion has been estimated as revenue leakage to underground builders from federal and provincial government-funded projects. Our plans for the next 25 years need to embrace the full range of investments in housing by not only developers and governments but also property owners/ developers and local builders.

Embrace the messy and unplan for it!



PUBLIC DATA BELONGS IN THE PUBLIC LIBRARY

[Mita Williams](#)

Three years ago, my family had the pleasure of staying in the coastal city of Aarhus, Denmark for several days. At the time my children were ten and eight and while we were in Aarhus, we were joined by my cousin and her four year old son. It was a rainy Sunday when we all met up. As the day passed, the children became more and more restless in our hotel room. So we opted to brave the rain and walk to the nearby DOKK1 - the world famous Aarhus Public Library. The library was our salvation. It was filled with generous spaces where the children could play while the adults could linger or sit and talk nearby.

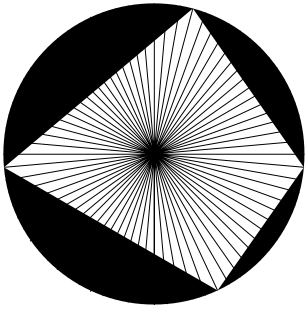
This is how CityLab describes DOKK1: “The spaceship-like structure houses the library, a municipal service center for residents and newcomers where citizens can pick up their identification card, renew their passports, and register with the municipality; a cafe, ample space for families, public computers, three playgrounds and lecture halls.”¹ A library doesn't have to be as magnificent as DOKK1 to be a refuge for a family who just needs a place and a reason to spend time together. It can simply be there -- in the neighbourhood, open to the community and open to discovery as indoor public space. But a library can be so much more than a family friendly and affordable third place in a community.

Most of us understand that the public library has books, story time, and computers with printers. But only some of us know that the library also houses the librarians who can help answer questions beyond whether a particular book is available. What if your local branch library started to market themselves until they were known in the community as the source of information about, by, and for the neighbourhood? What if the local branch library became the resident's interface for the city and a resource centre for local community activists? “It would be a place where you could drop in, tell a librarian your idea and be directed towards resources, experts, case studies, maybe even professors at universities who are into just that stuff. Wouldn't that be great?”²

What if the neighbourhood library was the place to collect, preserve and share neighbourhood data? Many city residents don't have the data literacy skills to manipulate and interpret data, and as this stands, most of the city's open datasets are useless to them. Libraries could step in and teach those skills including those involved in the protection of privacy. It could be a fitting role for libraries “whose mission has always been to ‘collect and make accessible to the public information that the public has rights to read.’”³

The public library could be more than indoor public space. It could be the home of public data that the neighbourhood both generates and understands.

[2] Catherine Porter, “The Boxer: a guide to getting in the ring with City bureaucracy” in “Local Motion: The Art of Civic Engagement in Toronto”, Coach House Press, 2010.



MYDATA IN THE SMART CITY

[John Wunderlich](#)

Urban life presents a panoply of options for those fortunate enough to be able to enjoy it. The modern boulevardier can be present in the city, enjoying both public and private spaces in comfortable anonymity, knowing that she may be observed but that she will not be known except to her friends and those that she chooses to engage with. She is in control of what she discloses about herself. When she communicates with others she co-creates and co-manages the rules of sharing her data with them. It's not always perfect, but people have been negotiating and managing these boundaries since first we started communicating.

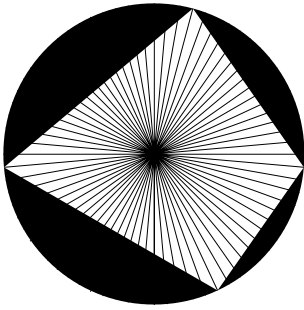
A truly 'smart' city is one where the built digital and physical environments safely and securely adapt to and encourage individual autonomy, private interactions and public life. It starts by placing the individual at the centre of their own data - replicating our everyday presentation of self to the physical world. The appropriation of the digital self without the full involvement of the person is as egregious an infringement on the human condition as the appropriation of the physical self.

A smart city is built on open data

Today's city is filled with sensors, devices and networks providing or supporting services for the people, governments and businesses of that city. Mini weather stations collect environmental data. Cameras capture still and video images of the streets and sidewalks, of the people and the vehicles. Cell phone systems track mobile devices to maintain connectivity. Wi-Fi access points provide Internet access. As much of this data as possible should be anonymous open data, available to all. Open and anonymous data enables innovation and provides the kind of transparency that builds civic trust.

A smart city minimizes the collection of personal information

People moving through the city inevitably leave a digital trail and have a reasonable expectation of privacy. That means the information about people can't be open data. It must be de-identified, anonymized or aggregated as close to the collection point as possible. Demonstrably minimizing the collection of personal information builds institutional trust. Where individual data is collected with the intention of being used, the individual needs to know that they will be able to control how that data is used – either by themselves or through an organization that acts in each person's interests.



MYDATA IN THE SMART CITY

[John Wunderlich](#)

A smart city protects personal information in the best interests of the individual

Personal information can enable personalized services for individuals. But who determines if a particular use of data is in the individual's interest? There are too many collection points and services for most people to manage themselves. People need to trust an organization to act on their behalf. And people's interests are too varied to expect a single organization to represent this diversity. This is the role of multiple organizations acting as trusted information fiduciaries, or trusts, on behalf of the individual. Individuals can select a data trust organization that best matches their interests. And where individuals haven't nominated a data trust, the default trust must follow a privacy by design approach and minimize the collection, use, disclosure and retention of personal data. Essentially this will mean that the only allowable default uses are the uses that are mandated specifically by law and NOT including commercial profiling or advertising. Individuals can choose between data trusts to serve their interests and enable the services that they choose.

A smart city uses available technology to empower the individual

This vision is both achievable and practicable today. Policies and regulations can create and support fiduciary information trusts. Information collection can be minimized at source. There are technical protocols and standards for data receipts, user managed access, or digital information sharing agreements. Existing technologies can build a privacy preserving and trusted smart city.

The question is not whether a human-centric smart city can be built. The question is whether the citizen will be put at the center of their own data to make a wise city.

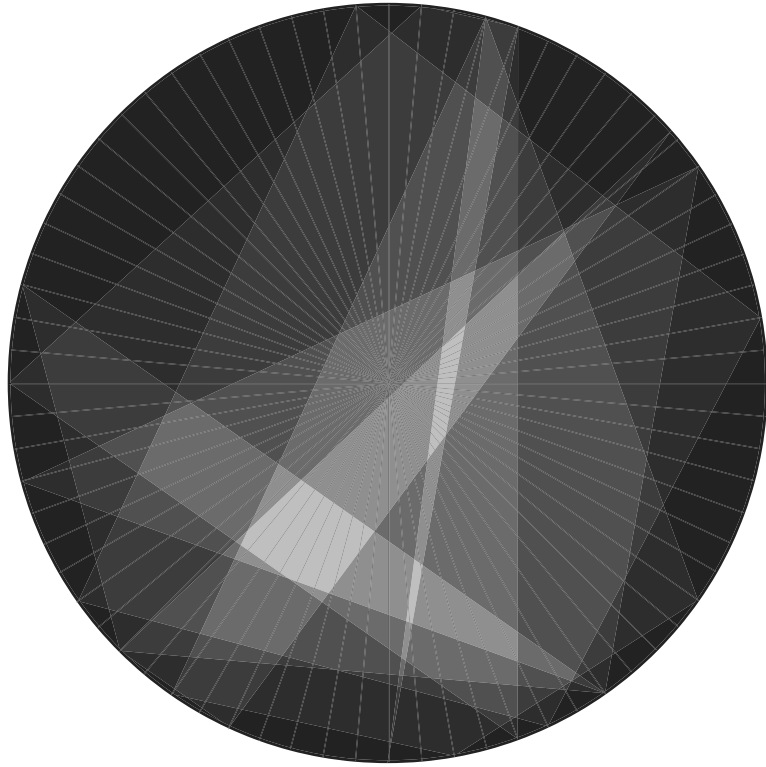


TABLE 3



SHOW ME THE MONEY: HOW THE TRANSIT FUNDING MODEL IS BROKEN

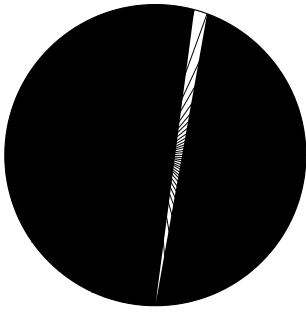
[André Darmanin](#)

In 2017, Toronto Mayor John Tory felt he was treated like a little boy going to Queen's Park in "short pants" when he approached the province to discuss additional municipal funding.

That's how most municipalities feel when they request funding, especially for large infrastructure projects such as transportation. Projects like the Scarborough Subway Extension, or its previous iteration the Light Rail Transit (LRT) plan, and the Downtown Relief Line (DRL) have been in flux. While these projects have been held up mainly due to political wrangling, Section 92 of The Constitution makes municipalities creatures of the province, forcing them to go cap in hand to the provincial and federal governments for money. These delays continue to wreak havoc on our cities, getting in the way of addressing the climate emergency before us.

Funding and governance models need to be modernized to reflect current realities. Enter Sidewalk Labs. In June 2019, the organization proposed the creation of a new de facto transportation department that would be responsible for traffic management. They also wanted to use a portion of the property tax to fund transit, namely to build the Waterfront LRT. While the LRT project is not high on the City of Toronto's list of transit projects, it is for Sidewalk Labs. City Councillor Gord Perks stated in a [June 25th 2019 Toronto Star article](#) that this move would be undemocratic. Nevertheless, Sidewalk Labs restarted a debate that has been brewing and raging for a long time already.

Really, this is not a new idea though. In the United States, what Sidewalk Labs is proposing is called a transportation improvement or development district (TID/TDD). According to the US Federal Highway Administration (FHWA), these are special assessment districts to improve the transportation system within a designated zone. While this is a good idea, and pushes the envelope, the problem is that Sidewalk Labs wants to be the delivering transportation agency. The City of Toronto already charges a 30-year levy to Scarborough residents to fund the subway extension. A discussion is required not only about how transit is funded in the City, and the Greater Toronto and Hamilton region, but within a revised governance model as well.



SHOW ME THE MONEY: HOW THE TRANSIT FUNDING MODEL IS BROKEN

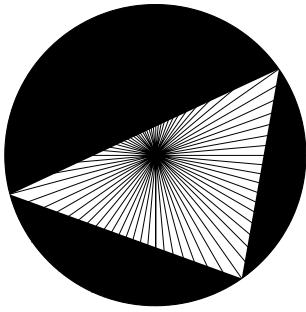
[André Darmanin](#)

Metrolinx is the regional transportation planning agency and funding administrator of initiatives on behalf of the Province of Ontario for the Greater Toronto and Hamilton Area. Regional transit projects are outlined in the Regional Transportation Plan, which was released in 2018. Unfortunately, the plan was not costed out to determine the value of new projects and maintenance of the current system. The Big Move, the last regional transportation plan, had an investment strategy several years after its release.

In the United States, there are metropolitan planning organizations and regional transportation agencies that hold taxation powers over regional transportation projects. Two examples of regional agencies that hold the purse strings are the San Francisco County's Metropolitan Planning Commission and Chicago's Regional Transportation Authority. The closest to this in Canada is TransLink in Metro Vancouver. TransLink currently levies several taxes to fund transportation projects such as a regional property tax, parking lot sales tax and development charges for transit.

There are several opportunities to fund local and regional transportation projects. One well known example is Measures M and R, local sales tax initiatives approved by Los Angeles County voters to fund those projects. The State of California allows the counties to levy such revenue measures, whereas Ontario's municipalities must fight tooth and nail to get funding. While the City of Toronto Act provides the opportunity to raise additional revenue sources, approval still must come from the Province. A recent case in point was when the City of Toronto proposed to charge tolls on the Gardiner Expressway and Don Valley Parkway to raise funds for transit, and the Provincial Government played politics and denied the City that opportunity.

While there are more intricate issues, such as social equity, that require political maneuvering, when it comes to transit funding and governance, Sidewalk Labs re-opened the discussion on how big-ticket items like transit should be in the control of municipalities and regions. It is time for the provincial government to recognize this and be on par with our American counterparts to progressively build transit sooner rather than later.



SUPPORTING NEWCOMER-OWNED FOOD BUSINESSES

[Andrew Do](#)

Nowhere is Toronto's motto of "Diversity: Our Strength" better reflected than in our cuisine. Food is often an accessible gateway to introduce people to new experiences and cultures. Few cities in the world can offer our appetites the kind of diverse culinary wanderlust that our taste buds can indulge in. Many of us are probably able to name a favorite spot for patties (Bathurst Station or Warden Station?), baklava or Pho. It's undeniable that newcomers and migrants are driving food culture in Toronto, even with cuisines you may not typically associate with newcomers. One only needs to talk to someone in the restaurant industry to know that in Toronto, Tamils and/or Bengalis are often cooking your food.

This brings me to the people making our food. I have [spoken to a number of migrant-owned food establishments](#) in Toronto. Many of them got into the food industry because they had no other option. What some may romanticize as a medium in which newcomers are happily providing for a cultural exchange, is in reality just one of the few ways they can make ends meet. It is only years later that many come to appreciate how the food they make can also bring community together.

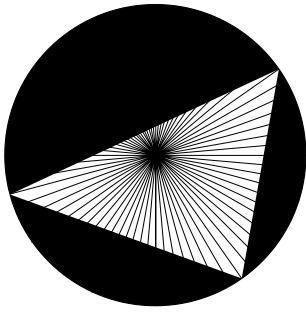
With that in mind, I want to suggest a few things that we can do to help make these people's lives easier.

Diversify your food supply chain and support migrant-owned restaurants

With Toronto being a hub for events and conferences, there is no excuse for a catered lunch letdown that feeds people with sadness sandwiches and wilted wraps. If you are in a position to make purchasing decisions on food suppliers, make an effort to diversify your food suppliers.

There are often rules or agreements in place, depending on venues or an organization, that define who is approved to supply food. This is an opportunity for organizations, especially anchor institutions, to think about how they can use their purchasing dollars to diversify their food suppliers and support newcomers.

Lastly, on an individual-level, whatever you do, just please give them your money. Do not try and get a free meal from them in exchange for whatever influence you think you have.



SUPPORTING NEWCOMER-OWNED FOOD BUSINESSES

[Andrew Do](#)

Skills in the food industry for newcomers

Anyone who has worked in the food industry knows how physically demanding the work is. There are programs to support our newcomers by offering them opportunities to gain skills in the food industry. Take the Community Food Works for Newcomer Settlement program for example. It's an award-winning program that builds on the original Community Food Works program that helped low-income residents obtain meaningful employment in the food industry and a pathway to obtain food handler certification. This is a success story that Toronto Public Health tells, one that meaningfully improved the lives of newcomers in the food industry.

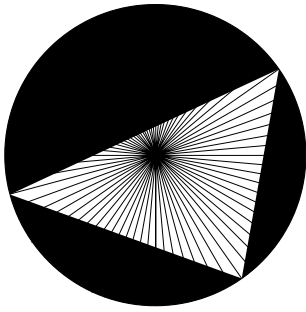
Perhaps more lucratively though, we can also offer a pathway to residency and potentially citizenship. The agricultural industry is in need of skilled workers in the agri-foods sector. The federal government recognized this by announcing the Agri-Food Immigration Pilot where foreign seasonal workers who participate are given a pathway to residency. Many of these seasonal workers have countries of origin in Central America and this could profoundly impact our culinary landscape.

Of course these programs I cite are offered by different levels of government, which goes to show that the nature of supporting newcomer food businesses is going to be tied to immigration policy.

Organizing for immigration policy

Which brings us to the inescapable thing: immigration policy. Supporting newcomer-owned businesses is moot without them here in the first place. If you like your hand-pulled noodles or falafels and the people behind them, then perhaps now is the time to think about how Toronto can be even more inclusive for newcomer communities. The culinary landscape of Toronto is going to be a function of our national immigration policy, which is driven by who is let into the country and who is not.

I will take two refugee communities: the Syrian community and the Yemeni community. Both are refugee communities undergoing tragic humanitarian crises in the Middle East. With the former community, we can tell ourselves a great story of being welcoming to Syrian refugees with catering collectives like the Newcomer Kitchen.



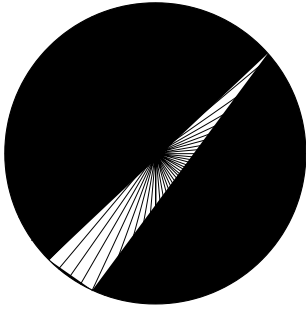
SUPPORTING NEWCOMER-OWNED FOOD BUSINESSES

[Andrew Do](#)

Contrast this with Yemeni refugees. Canada is not accepting them in the numbers that they are Syrian refugees. As a result, you would be hard-pressed to find a Yemeni food scene. Perhaps this is because it would mean accepting our responsibility for being complicit in contributing to the humanitarian crises in selling over \$248 million of arms to Saudi Arabia.

This is an opportunity for us living in cities. If we want to continue claiming to be magnets for newcomers, let's also be the magnets to organize on their behalf.

While we may love our hummus and tacos, let's not forget about the people behind the food that are just trying to get by. Food is the gateway into one's culture but do not let it be the last step.



CONSTRUCTIVE DISSENT

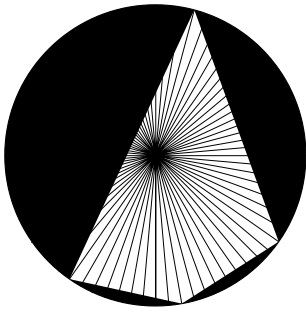
[Rumman Chowdhury](#)

The digital infrastructure of society is increasingly managed and maintained by private organizations. In order to combat regulatory, political, and economic capture, we need to enable constructive dissent and community-driven solutions.

This is driven in three parts: awareness, education, and action.

In order to drive meaningful and constructive two-way communication, we need government and civic groups to provide clear education on these technologies and their implications, driving awareness. Education links the existence of these technologies to their meaningful impact on everyday life, thus demystifying, removing hype, and grounding conversation in the realistic limitations of these technologies. Finally, an avenue for action - meaningful conversation, criticism, and the ability to have decision-making power over if and how these technologies are used.

Ultimately, these technologies need to be grounded in the local community, and local communities need a civic infrastructure to guide constructive dissent.



URBAN COLLECTIVE SOLIDARITY

[Alejandro Mayoral Banos](#)

Urban environments are rapidly growing and becoming more diverse. The competition for the limited resources within the same living space (e.g. accommodation, public areas, water, transportation, energy, air, etc.) is challenging our forms of negotiation and conflict resolution.

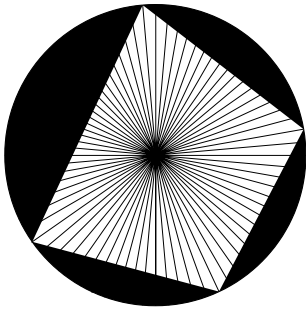
If urban citizens continue with an individualistic approach to resource management, the metropolises will become environmentally unsustainable and more importantly, socially unliveable. The continuous tension in holding the ownership, control and access of shared resources increases violence across sectors and groups within urban societies. The neoliberal idea of owning private property is dismantling the urban landscape and raising disparities between groups and identities.

Alternative and disruptive models are being examined across the globe where collective possession and solidarity are held by people who are willing to renounce individual ownership and share resources with groups beyond their family circle. However, these forms of governance are not a contemporary creation. The vast majority of Indigenous communities across the globe have lived in this form prior to Western colonization. Several Indigenous leaders have expressed, in different moments, thoughts on the failure of Western science, and the capitalist system, in sustaining societies and the environment. The community-driven worldviews of Indigenous communities offer examples of possible paths for solving everyday problems. The waste of unnecessary resources would directly affect the interest of the collective, therefore actions would be taken to decrease possible misuse.

However, in order for these communities to flourish and succeed in the long term, an increase of awareness and implementation of public policy actions are required. Urban youth in large metropolises are increasingly bombarded with the idea of loans, capital, mortgages and individual success. Therefore, educational institutions require a progressive shift, and they need to provide more information about these forms of co-living and cooperation. Moreover, they should offer tools for collective conflict resolution and negotiation.

On the other side of the spectrum, national jurisdictions are behind in recognizing these new models of shared spaces. Policymakers must design and accommodate new types of co-ownership and co-organization. Several actors should look at how Indigenous societies have solved problems throughout centuries with and without colonization.

Finally, the overall urban population must be open to trying new paths of living, even if they challenge their imaginary of urban landscapes.



SOCIALLY RESPONSIBLE INTELLECTUAL PROPERTY

[Myra J. Tawfik](#)

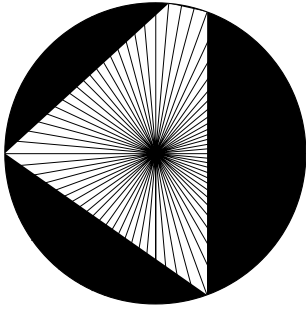
Imagining the cities of tomorrow – in which technology is used to enhance quality of life and increase human connectedness and well-being – means recognizing that the technologies embedded in smart cities are capable of wondrous benefits so long as the intellectual property (IP) rights that protect them are governed by rules that place the public interest at the forefront.

We must continue to remind ourselves – and to challenge those who argue otherwise – that IP rights are not ‘property’ rights like any other. By design, they are and must remain limited in breadth and scope consistent with their foundational policy frameworks. IP has never been about privileging rights holders to the exclusion of a broader public interest.

For example, the policy behind providing exclusivity to inventors through patents or creators through copyright is to encourage them to disseminate their knowledge and to introduce something useful to society. These forms of IP have never been about rewarding inventors and creators for the mere fact of having invented or created. Patent and copyright laws place limits on the monopolies they confer – for every right granted to the right holder, there is a commensurate obligation to advance societal goals. A limited 20-year term on patents ensures that once the patent expires, everyone is free to use and improve on the invention. In the case of copyright, limitations and exceptions, like fair dealing, recognize the balance that must be struck so that others can build on the protected creativity without fear of repercussion. In Canada, the law protects trade secrets and confidential information not because they are forms of property. Instead, the law upholds the obligation of trust that arises when a recipient agrees to keep valuable commercial information secret. The law steps in to punish broken promises, not to defend property. We forget these normative policy principles at our peril.

IP is not – and should not be – about individual property rights without any meaningful social benefit. It is not – and should not be – about rent-seeking above all other considerations. It is not – and *should never* be – about concentrating control and wealth in the hands of the few, especially in the civic setting.

We need to recognize the stewardship obligations of our public institutions in relation to the IP generated through smart city initiatives and integrate the language of public trust into our IP discourse. The smart city means being smart about IP by putting IP in its place. We must develop binding IP protocols for civic spaces that harness the benefits of IP while mitigating its harms. I am calling for socially responsible IP – the development of an IP ethic consistent with democratic principles – that situates the well-being of citizens and communities as its core concern.



PUBLIC SPACE IN A SMART CITY

[Pamela Robinson](#)

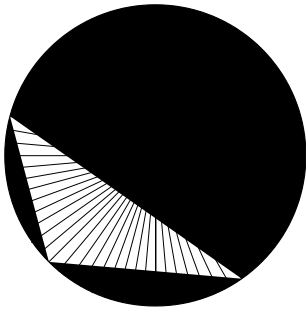
In 2001 the Toronto Public Space Committee assembled out of concern about advertising intrusion in the form of massive billboards into the public realm. Their broader goal was to protect public space from the intrusion of private and corporate influence. While the work of defending and supporting public space in Toronto has been ongoing, in 2019 with the arrival of smart city technology the need for this activism feels more important than ever.

Lots of people are choosing to use smart home technology with smart assistants, fridges, and thermostats. But it is a different proposition when smart city sensors, cameras, mobile phone location technology and smart doorbells are used in public spaces. When you buy and use these devices at home, you're actively making the decision to allow your data to be gathered. But when these devices are used in public spaces how do we gain people's consent? And more importantly, how can people opt-out if they don't want their data collected but still have open, safe access to public space?

There are growing public conversations about how to communicate to people what kinds of technology are being used. The American Civil Liberties Union in 2014 released a "Model Safety and Surveillance Ordinance" to help local governments sort how to regulate the collection of data from public spaces. The recent CIGI Policy Brief "[Safeguarding Big Data Captured in Public Spaces through Standardization](#)" argues that standards must address citizen engagement, data collection and organization; and data access, sharing and retention issues.

But before we jump to framing what should happen when this technology is used in public spaces, let's first get in the habit of asking: is the collection of these data absolutely necessary?

Whose job is it to ask these questions? Right now I think local governments are well positioned to host civic conversations about what's next for technology deployment in public spaces. Local governments already convene and consult when there is competition or change in public spaces. Elected officials routinely have to navigate choppy political waters so their role here is important. Civil society groups with a focus on public spaces have a role to play too. Here we can learn from the legacy and impact of the Toronto Public Space Committee. The possibilities to gather these data seem endless but just because we can doesn't mean we should.



LAND AS A PLATFORM

[Alastair Parvin](#)

Almost every major city in the world today has a housing affordability crisis.

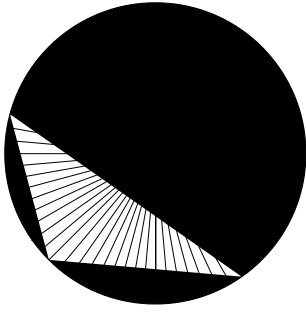
When we think about using digital innovation to tackle this problem, we can immediately begin to imagine ways that technology could transform the outdated way we design and construct homes: making them better and dramatically cheaper to construct.

But that alone won't solve the problem. Because most of what makes a home unaffordable is not the house itself - it is the land underneath it. The right to live at that location.

As many economists, from Adam Smith to Henry George have pointed out, land value isn't created by the owner, it is created by all of us, and by governments, when they install roads, infrastructure, schools, and - ultimately, provide military protection. Fundamentally, land is licensed to us by our governments in the form of a piece of paper – a deed of ownership. Because it is just that, a piece of paper - its price is determined not by how much it costs to produce, but by how much someone is willing – or able – to pay for it, based on their wealth, their wages and their ability to borrow.

Under the standard model of land ownership, when the value of land rises – it is the owner who captures that increase; '[reaping where he never sowed](#)'. This creates a market for speculators: middlemen such as developers and landlords. Their business model consists of using their capital to buy land, then selling or renting homes on it for as much as people can bear to pay. In this model, even if technology were to reduce the cost of building houses by half, the rent would still stay the same; land values would just go up.

Applying 21st century technology onto this 11th century land model is no more effective than fitting alloy wheels onto a horse and cart. The new, digital city may look different, but fundamentally, nothing will change. It will still be unaffordable and unequal. The cost of land will continue to have an increasingly suffocating effect on the economy and society, soaking up as much as 50% of families' or businesses' monthly income, in rent or mortgage payments. Put simply, the more we have to spend on the cost of land, the less we have left to spend on the buildings and activities that happen on top of it, such as entrepreneurialism, employment, care or sustainable construction.



LAND AS A PLATFORM

[Alastair Parvin](#)

So how might we begin to redesign land ownership for the 21st century?

One way of doing it might be ['Affordable Land'](#). Instead of selling plots of land to the highest bidder, the city leases them for a low up-front cost. However, the deal cuts both ways. The land can only be sold for the same amount that it was purchased for, and any rent above, say, 20% of the median income, will be payable to the city. In other words you can still own and sell the land – but only as a place to live and use, not as a speculative asset. If you want to do that, buy a place down the road.

In effect, Affordable Land could create a new class of home ownership – one that can exist alongside the existing land market. It allows city governments to make land available as a low-cost platform for society and the economy, liberating citizens and businesses from the burden of economic rent, and unlocking huge levels of prosperity and innovation.

All without spending a dollar.

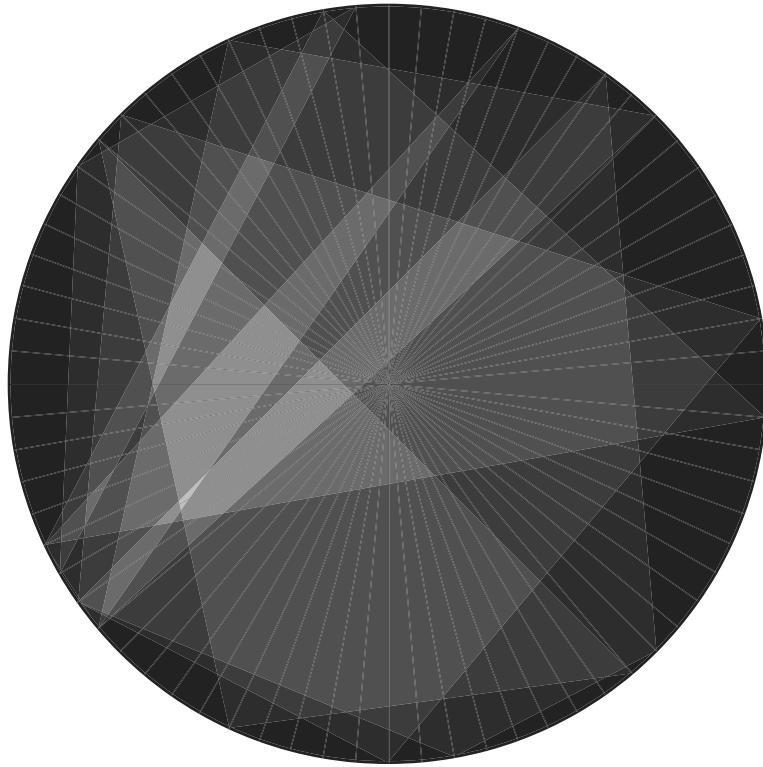
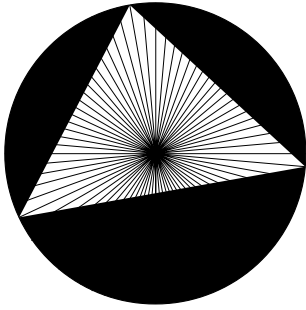


TABLE 4



COMMUNITY BENEFITS AGREEMENTS

[Kumsa Baker](#)

Five years ago, a group of community leaders working to address inequality and create opportunities for working people got together to explore an opportunity. They were inspired by the advocacy of Rexdale residents who, years earlier, secured a Community Benefits Agreement (CBA) for the expansion of the Woodbine Racetrack and Slots at Woodbine Live!, a proposal for a full entertainment district with a casino, hotels, live performance venue, retail and restaurants (which later was abandoned by the project proponent). They were inspired by the work of organizations in the US and beyond to secure local hiring and other commitments from big projects.

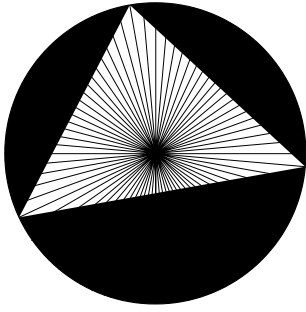
However, they were also frustrated with the way new infrastructure investments, especially those paid for by government and/or on publicly owned land, didn't produce any equitable opportunities for local jobs or opportunities for social enterprises and small businesses.

The coalition quickly grew as organizations across the city saw how investments in big public and private projects could be harnessed to provide jobs and opportunities for historically marginalized communities and equity seeking groups.

With the support of resident leaders, community organizations, labour unions, foundations and social enterprises, 2014 marked the launch of a community/labour coalition; the Toronto Community Benefits Network (TCBN). Over the past five years, the TCBN has secured CBAs on four large scale infrastructure projects which include the Eglinton Crosstown Light Rail Transit (LRT, \$8.5B), Finch West LRT (\$2.5B), Woodbine Casino and Entertainment expansion (approx. \$1B) and West Park Healthcare Centre (\$1.2B).

The CBAs include, but are not limited to targets for:

- Apprenticeship opportunities
- Professional, administrative, operations and technical positions
- Social procurement to support local business, diverse owned businesses and social enterprise
- Environmental protections and neighbourhood improvements
- Monitoring, reporting, accountability



COMMUNITY BENEFITS AGREEMENTS

[Kumsa Baker](#)

Throughout the development of these agreements, TCBN carved out a role in supporting strong community engagement, advocating governments for stronger social policy and equitable development process, research and codifying best practices, and working with industry to develop effective recruitment processes.

David Hulchanski's Three Cities report on income polarization reaffirmed what many of my neighbours, family and friends have been experiencing; a lack of decent work opportunities in Toronto. It was through the RexdaleRising! CBA campaign that I learned about the term "Postal Code discrimination" where a qualified Rexdale resident was denied an interview at a local bank due to the area they lived in.

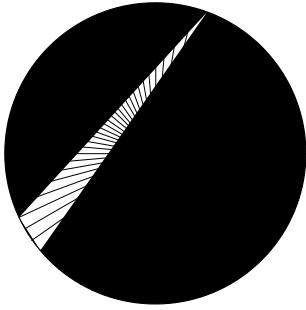
CBA's have emerged as a strong tool to require equitable opportunities for all, and specifically to prioritize targets for hiring underrepresented groups in the industry.

Over the past five years, we have witnessed the Toronto tech sector add over 82,100 tech related jobs, more than any other North American city. However, a 2019 Brookfield Institute report "[Who are Canada's Tech Workers?](#)" has highlighted that those identifying as Filipino or Black had the lowest participation rates in tech occupations and that Black tech workers' salary was over \$13,000 less than the average across all visible minority groups and over \$16,000 less than non-visible minorities in tech occupations.

Through CBA's, we have the opportunity to level the playing field and require employers to train and hire those who historically have been underrepresented in the industry. The City of Toronto recently approved a new Community Benefits Framework that applies to all public infrastructure investments, private developments on public land, and when the City provides incentives for developments (usually office development that demonstrate adding over 1,500 new jobs). This provides a new tool that we can leverage to shape a more fair, just and equitable development process in Toronto.

This can be done. We have seen some early successes of CBA on projects like the Eglinton Crosstown LRT project where 115 apprentices and over 150 professional, administrative, and technical positions have been sourced and hired through the agreement. In addition, over \$6M has been spent on local businesses and over \$650,000 supporting social enterprise.

We must act now to ensure that new investments deliver on positive outcomes for residents, and not just the bottom lines of big corporations. Now is the time to ensure that as we build our city, we are also building opportunities and jobs in communities that need it most.



ART SHAPING THE RULES THAT GOVERN AI

[Valentine Goddard](#)

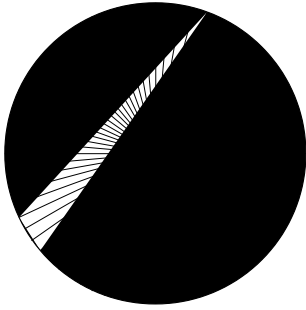
As we speak, Artificial Intelligence (AI) is being implemented in health systems, sentencing, and educational services. It is already impacting citizens and institutions. An informed social dialogue with civil society on what is ethical and responsible AI is necessary to enable societies to enjoy the beneficial potential of AI and mitigate its risks.

Indeed, in an effort to avoid the risks associated with AI, and build trust in a socially disruptive technology, an important number of working groups have published various frameworks and guidelines¹ on what constitutes ethical and responsible AI. These efforts required considerable effort and collaboration and have established the grounds for industry and governments to develop and deploy AI assisted products and services. Unfortunately, the over representation of the tech industry, and lack of representation of civil society organizations (CSOs) lack the appearance of impartiality necessary to ensure trust.

The absence of CSOs in these workgroups is sometimes justified by their lack of expertise in AI, and low levels of digital literacy. Not only is it shocking that we would use the digital gap as an excuse to exclude a sector, where 80% of the workforce happens to be female, and AI's female presence is notably low, but mostly it undervalues the importance of this sector's essential contribution to unbiased and sustainable deployment of AI in society.

Our laws are written representations of social values, and with that assumption, democratic processes were put in place in an attempt to guarantee an equal representation of everyone's voices. CSOs role is fundamental in ensuring the legitimacy, credibility and acceptability of AI and the normative frameworks that will govern its development and use. As citizen's trusted allies, they are indeed best suited to ensure that normative frameworks are representative of the values and needs of citizens. In order to achieve this, these organizations need to be better equipped with an understanding of the potential and various political, legal, and societal implications of AI. Building this capacity will lead to inclusive regulatory innovation and growth in a knowledge-based, data-driven economy.

Furthermore, Fairness, Accountability and Transparency (FAT) are three widely accepted concepts defining the basis of Ethical AI. The definition of transparency includes the concept of communication, or social dialogue. In fact, to be functional, communication must be held between parties capable of understanding each other through shared language and knowledge.



ART SHAPING THE RULES THAT GOVERN AI

[Valentine Goddard](#)

From a legal perspective, this shared understanding is actually conditional to the validity of an agreement. Ethical guidelines are not laws, but represent a form of unenforceable social contract, or moral commitment. By affirming transparency as a requirement, organizations must accept that if one party doesn't understand, communication fails, and transparency is not achieved.

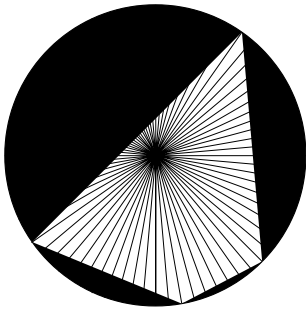
In short, an obstructive digital gap is affecting the capacity of important segments of civil society to understand AI's implications, and Ethical and Responsible AI is not yet possible.

What does art have to do with democratic and inclusive governance of AI?

To achieve legitimate AI policies, research² has shown that, we need 1) a large number of citizens, 2) a diversity of perspectives, and 3) an understanding of the implications of the science or technology at stake. One of the best ways to achieve this is through interactive forms of art. Indeed, art has time and time again proven to be a powerful tool to enhance public awareness on difficult issues, engage civil society in an informed social dialogue, revitalize democratic processes, and give qualitative substance to inclusive AI governance. For these reasons, I aspire to explore the role of art, artists and creators, in civic engagement, regulatory innovation and the development of informed policies around data and AI.

[1] The Global Landscape of AI Ethics Guidelines, A. Jobin, M. Ienca, E. Vayena, 2019.

[2] Theatre as a public engagement tool for health-policy development, J. Nisker, R. Bluhm, D. Martin, A. Daar, 2006.



HOW DO WE ASK WISE QUESTIONS ABOUT TECHNOLOGY & CITIES AMIDST OUR CLIMATE CRISIS?

[Daniel Latorre](#)

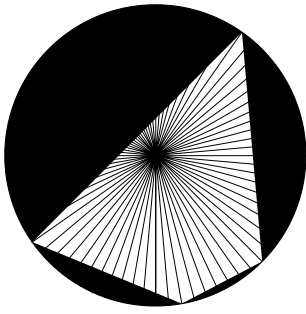
What are we drumming up in our technosocial city visions?
Each key tap like repeated beats on a doorway to wiser paths?

Could this be a call to action for all, for journalists, policy gurus, lawmakers, urban designers, architects, digital makers, activists and everyday people, yes we all, to ask deeper questions, more rigorous questions? Why does status quo journalism and popular thought revolve around sales PR from vendors of a technology? How do those mindful of our living responsibilities become more literate about technological determinism? When will most see the failure of technocratic modernism? At what planetary cost? While hubris lauds our material “progress” have you felt our climate crisis to render such proud calculations from status quo logic as profoundly and decidedly unwise?

Whose answers are being heard & repeated?
Are we too often still asking the wrong questions?
What are wiser questions to take to heart, and turn to each other asking right now?

What about these 15 questions* to ask about any public urban technology?:

1. What is the problem to which this technology is a solution?
2. Whose problem is it?
3. What new problems might be created by solving the original problem?
 - a. What does the solution enhance?
 - b. What does the solution make obsolete?
 - c. What does the solution retrieve that had been obsolesced earlier?
 - d. What does the solution reverse or flip into when pushed to extremes?
4. Which people and what institutions will be most seriously harmed by this new technology?
5. What changes in language are being forced by these new technologies?
6. What sort of people and institutions gain special economic and political power from this new technology?
7. Is it contextual to the place?
8. Are local people collaborating in making & using it?



HOW DO WE ASK WISE QUESTIONS ABOUT TECHNOLOGY & CITIES AMIDST OUR CLIMATE CRISIS?

[Daniel Latorre](#)

9. Does it support a human scale relationship or interaction?
10. Does it increase face to face interaction?
11. To what degree does the project support all our Commons?
12. Is there mentoring?
13. Is it connected to existing community wisdom campaigns?
14. Is it inclusive & respectful to the full diversity of all human & non-human life?
15. How sustainable is ongoing iteration planned for & supported?

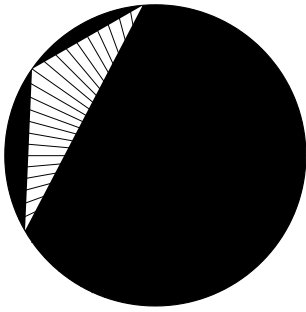
What came to mind just now? Was it that urban tech and smart cities schemes are often a complex complexed mix of numerous technologies which require many rounds of this type of rigorous inquiry to even approach holding some wise governance understanding?

Do you hear this call for more mindful reflective culture? That responsibility to each other and future generations? Are you there already? Then can we talk about how placemaking in the digital age requires even more cross-cultural community interaction & equanimity?

Do you feel how this deeper dialogue, so open and expansive... is courageously democratic?

What happens if you ask these questions with someone right now?

** Adapted from Neil Postman, [Building a Bridge to the 18th Century: How the Past Can Improve Our Future](#), 1999; Marshall McLuhan, [Laws of Media](#), 1988; Jim Diers, [Neighbor Power: Building Community the Seattle Way](#), 2004, and the author's unpublished work from 2016.*



THE CONNECTED COMMUNITY APPROACH: A COMMUNITY DEVELOPMENT FRAMEWORK

[Ajeev Bhatia & Anne Gloger](#)

How to unlock the potential of a community to find local solutions to complex social issues

Cities are made up of communities. It is at the community scale that people interact, where ideas are born and where there is a real opportunity to create meaningful change. But people in communities can also be disconnected from each other and even more disconnected from the systems that affect their lives.

The key to understanding communities is understanding how people are connected. When information, ideas, relationships, supports and resources are understood and shared across the players in a community, talents and assets can be combined and mobilized in multiple ways. When people and organizations work together in different ways over time, they begin to foster a sense of shared identity and belonging. A shared narrative begins to develop, new ideas are sparked, and with good facilitation, multiple players from multiple sectors can all play a role in continuous community improvement.

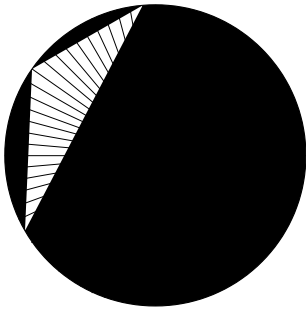
And that's the purpose of the Connected Community Approach.

The Connected Community Approach (CCA) is a set of principles and practices that support the authentic and meaningful connection of people who want to make a positive impact in their community. By using the Connected Community Approach, an individual, organization or group, can help weave together the community building efforts of institutions and funders, grassroots groups and social service organizations, strengthening social capital, social fabric and ultimately, the resilience of their community.

Fundamental to CCA is the belief that innovation and solutions to entrenched social problems are generated through collective problem solving and rooted in local context. Working to foster connected communities may seem obvious, but it is, in fact, a paradigm shift from the way we, in North American society, invest in community interventions; interventions designed to strengthen community are often top down, isolated, and programmatic in nature.

CCA has tremendous potential to unlock the power of community building across multiple domains including (but in no way limited to): community resilience, poverty reduction, equity and inclusion and place-making.

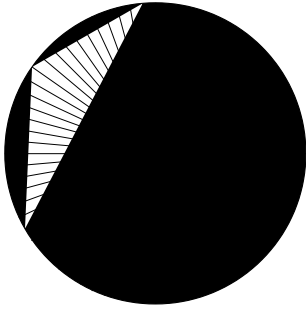
CCA posits that there are 10 keys that when implemented together, with authenticity and intentionality, can foster the paradigm shift required to unlock the potential of connected communities.



THE CONNECTED COMMUNITY APPROACH: A COMMUNITY DEVELOPMENT FRAMEWORK

Ajeev Bhatia & Anne Gloger

10 keys	
Build on Everyone's Strengths	Instead of looking at what is wrong with a community and what needs fixing, ask the question, what is right with the community that can be built on; who is doing great work that could be strengthened and connected for greater impact?
Facilitate Collaborative Processes	Collaborations don't just happen, they require expert facilitation to ensure a deep collective understanding, shared purpose and mutually reinforcing processes.
Create Connected Communities from the Inside Out	Healthy, nurturing organizations and groups are fundamental to a connected community. Investing in the wellbeing of the people doing the work will ultimately mean greater impact.
Learn Together	Learning feedback loops are what strengthen a community over time; intentional learning can help everyone (grassroots groups, institutions, organizations, funders etc.) learn how the community works, the impact of specific interventions, and what people care about so that synergies can be found and decisions can be grounded in learning. In this way, initiatives and ideas build on each other over time.
Embrace the Messiness	Ideas, priorities, aspirations and enthusiasm in a community emerge in different places at different times which are impossible to predict. Facilitating processes in this kind of complexity requires a specific skill set that sees emergence as a strength and creates the nimbleness required to identify and build on local momentum.
Prioritize Equity and Power Sharing	Power is a complex dynamic in all communities. In order to foster strong social fabric it is critical the decision making power rests in numerous places throughout the community, and especially with grassroots groups that dedicate themselves to the wellbeing of their community. The kinds of power structures and dynamics that people are used to often have to be disrupted to achieve this.
Let Values Lead	When organizations or groups are trying to engage in activities that foster a connected community, their work is built on a foundation of values which involves a shared understanding and an articulated commitment to an overarching theory of change, and the principles that guide the work. In this way, a group of people or organization can authentically strengthen the work of others and not inadvertently slip into old paradigms and power roles.
Work at Multiple Scales	Facilitating a connected community means not only working to build strong local social fabric, but also connecting community led initiatives to larger systems, and movements to larger change efforts. Connecting community building to city building, to global change efforts supports scale that is truly grounded in community.
Make Community Building Visual	Communication is foundational to the Connected Community Approach. Communicating across languages, across literacy levels, and across values and priorities is a difficult task: using graphic design and photographs to illustrate ideas, concepts and intent accelerates shared understanding and momentum.
Build Creative Infrastructure	A connected community requires intentional structures to ensure that the community really does strengthen over time. Creative infrastructure includes: buildings, places and structures; communication media; structured events, groups and opportunities to engage and influence the systems that make up a community.



THE CONNECTED COMMUNITY APPROACH: A COMMUNITY DEVELOPMENT FRAMEWORK

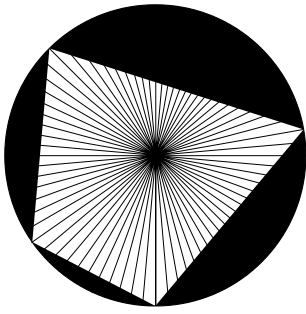
[Ajeev Bhatia & Anne Gloger](#)

The Connected Community Approach offers an opportunity to bring together the best of planning, design, academic theory, municipal, provincial and federal strategy, social service interventions, faith community aspirations, corporate social responsibility and ground them in the authentic goals, aspirations and realities of grassroots groups and people who have traditionally been at the margins.

Unlocking the potential of a connected community requires skill sets not often found in our community-based interventions. Using a Connected Community Approach to unlock the potential of communities requires investment: investment in capacity building, social infrastructure, but most of all in the facilitative role required to continually weave together the social fabric that communities need to effectively find local solutions to complex social problems.

Early research into the pioneering work of the East Scarborough Storefront and Community Capital work in the United Kingdom indicate that the investment is time, money and effort well spent.

Given the complex issues before us and, given what we know about the importance of community as the focal point of change...can we afford not to invest in connected communities?



DELIBERATING ON THE USES OF DATA IN CITIES

[Stéphane Guidoin](#)

Like most organizations, cities are now summoned to use conclusive data in their decision-making processes and within the context of their operations. However, as local governments, cities are also guarantors of dynamic living environments and, in particular, of the definition of a quality public space.

In a study conducted on the social acceptability of Internet of Things technologies, the City of Montreal and CIRAI highlighted 11 areas of interest: individual freedom, protection of the common good, equity and inclusion, etc. These issues are mainly related to the collection of data in public space, in which the notion of individual consent becomes obsolete.

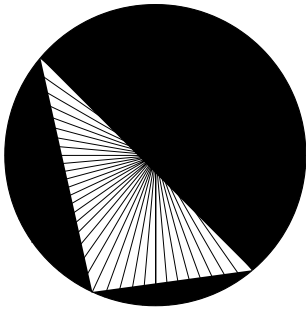
These numerous issues could lead us to simply oppose any data collection in public spaces and more generally to not use the data generated by cities. However, it is obvious that the cost of having a data deficit is also difficult to accept as a society. The challenge is to balance benefits and risks and to collect and use data responsibly. To strike such balances, we already have the necessary tools: democratic processes.

It is not just about making this an election issue - although it would be an interesting point, regardless of the level of government. The goal is to use fine mechanisms, based on deliberation, ideally including experts, citizens, and elected officials, to assess issues. These processes, which exist in many cities, will have to be adapted for this subject, which is very technical, but which also has a direct bearing on the daily lives of citizens. In particular, they should enable impact monitoring and transparency at all times.

It is for all these reasons that the City of Montreal has collaborated with the Métropole de Nantes to develop a data charter making these principles rules that the City will undertake to follow.

In order to limit data deficits, this charter also defines the notion of data of territorial interest: cities should be able to request data from public and private actors having an impact on the territory (transportation, housing, access to food etc.) and whose impact could be evaluated by data collected by these actors. Examples include the debates surrounding data access for platforms like [Uber](#) or [Airbnb](#).

Fears of government surveillance and profiling or of the risks of self-censorship and self-restraint of behavior when “machines” observe us, are real and complex questions that will not find a simple solution or miracle cure. It will be a slow and tense process requiring the development of solid democratic processes, adapted and based on the commitment of many stakeholders. This process should start now.



WHAT IF PEOPLE WERE SENSORS, NOT THINGS TO BE SENSED?

[Cory Doctorow](#)

Today, venture capitalists are uninterested in IoT pitches unless the gadget comes with an “ecosystem” – an app store and a closed channel of add-ons and parts that it can set margins on, to guarantee ongoing revenue streams. These devices are inheriting the worst parts of the inkjet printer and video-game console market, where consumables, software, and replacement parts all come at a high markup set by the original manufacturer, which uses technological countermeasures to keep third parties from invading its territory, which is your wallet.

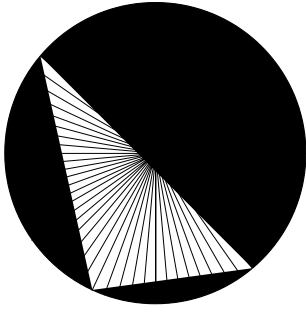
But imagine a different kind of IoT: an IoT where human beings are first class citizens, ahead of the “things” doing the sensing and the things being sensed.

For example: IoT vendors envision many “location based” businesses. The devices around you sense when you need a pee, or a coffee, or a new set of tires, and they will advertise those services to you, along with special offers that you'll gain access to by giving them even more intimate knowledge of your life and times.

People today may be indifferent to surveillance, but very few welcome it. And whatever today's attitudes are about privacy, the general population will only be more hostile to surveillance tomorrow. We haven't reached peak surveillance, not by a long shot, but we've sure as hell reached peak indifference to surveillance.

Imagine a location service that sold itself on the fact that your personal information was securely contained in its environs, used by you and you alone. You could have devices on your person that used their sensors to know things about you – when you last ate, what your dining preferences are, what your blood-sugar is, and so on, but these devices would have no truck with the cloud, and they would not deliver that information to anyone else for analysis.

Instead, as you passed through space, stores, toilets, restaurants, grocers and other entities would emit information about their offerings. These would be seen and analyzed by your personal network, and it would decide, on your behalf, whether to tell you about them, based on the preferences you've set, or that it's learned from you. The fact that you've been shown some piece of information would be between you and the computers you own, and – again – shared with no one.



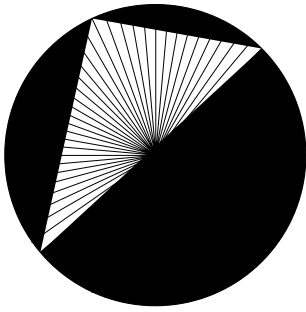
WHAT IF PEOPLE WERE SENSORS, NOT THINGS TO BE SENSED?

[Cory Doctorow](#)

It's the opposite of the Facebook model, where Facebook owns all the feeds and decides which one you're allowed to see. This is more like the email model, where your systems download all the messages someone wants to send you, then use your own filters and rules to decide which ones to discard and which ones to display.

From theme-parks to smart cities to med-tech to workplace efficiency tuning, treating humans as something more than a data-point, but as something with native intelligence, personal worth, and dignity, opens up whole worlds of transformational, world-changing possibilities.

Excerpt from: [Locus Mag](#)



RENEGOTIATING THE SOCIAL CONTRACT IN SMART CITIES

[Emily Royall](#)

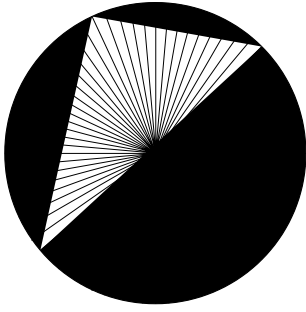
In 1762 Jean Jacques Rousseau posited in “The Social Contract” that people in civil society consent to surrender some of their natural freedoms in exchange for the protection of most of their freedoms and the maintenance of social order. This contract between the governed and governing, Rousseau argues, forms the foundation of democracy.

An amended version of the social contract is emerging in today’s digital spaces. Have you ever scrolled urgently through a long user agreement to set up a social media account? Ever glossed over an extensive privacy agreement in order to sign up quickly for an online service? Today’s public is regularly asked to surrender their freedom to own, access, monetize and use their data in exchange for convenient access to services. Is this a fair exchange?

Personal data has tremendous value in the contemporary economy, not only because it describes and predicts individual and collective behaviors, preferences, lifestyles and interests, but also because it can be used to train artificial intelligence — an emerging market and industry. Moreover, transactions using personal data become more tangible in “smart cities,” where physical interactions may collect data about the public throughout their daily urban experience—jogging with your FitBit, traveling in an automated vehicle, throwing your trash away in a ‘smart trashcan,’ or checking the temperature in your home through a mobile app.

The contemporary social contract is largely written between consumers and the private companies from which they receive such smart city services. Sometimes, it’s between citizens and our governments when smart city projects are publicly funded. In both scenarios, how the public consents to, or dissents from, these transactions remain undefined in Western society’s state and federal legislative framework. Meanwhile, the definition of “services” in the technology industry is expanding to encompass “Everything as a Service (XaaS),” highlighting the rapid growth of the types of experiences that can be delivered to customers digitally.

As new power regimes—those that shape public access to services, and the information from which those services are now built— surface in the information economy, we must also reassess the social contract, or the terms under which we agree to participate.



RENEGOTIATING THE SOCIAL CONTRACT IN SMART CITIES

[Emily Royall](#)

How do we do this? To get started, we can consider:

- What is today's social contract and why has it become obsolete?
- How can the social contract be amended?
- What are the values of a digital social contract?
- How do we define meaningful consent?
- By what mechanisms or means can the social contract be renegotiated?

“Man is born free and everywhere he is in chains” is how Rousseau described the experience of citizens living under a broken social contract, over two hundred years ago. Though today's chains may be harder to see, in this moment we have a special opportunity to shape the future social contract.

If you want to talk more about the social contract, smart cities and digital equity reach out to me on twitter [@Emily_Royall](#).

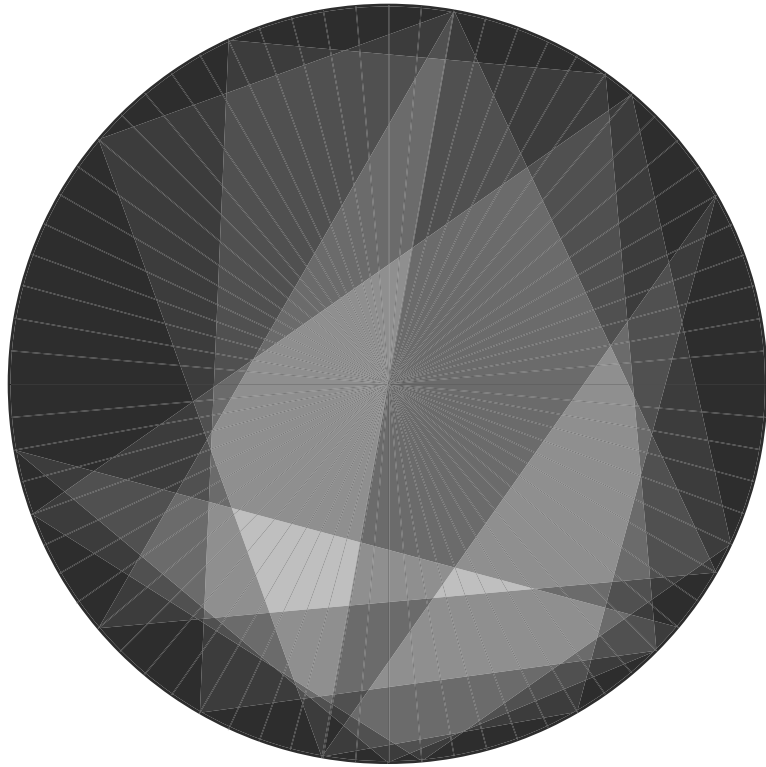
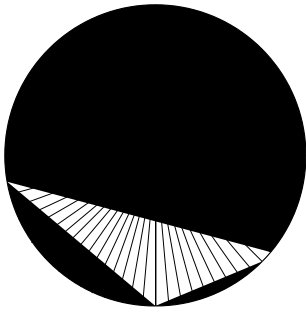


TABLE 5



MENTAL HEALTH DESIGN PLAYBOOK

[Pam Sethi](#) and [Deborah D'Amico](#)

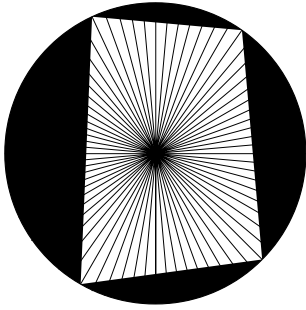
Reported mental health issues are emerging at an unprecedented rate. The statistic will soon be that 1 in 4 people will experience a mental health issue or challenge in their lifetime. What this means is that we need to start to reframe not only how we tackle mental health within our traditional system, but how we seize opportunities in everyday encounters to emphasize wellness, throughout our cities and neighbourhoods.

This challenge is not specific to Toronto or Canada. Societies worldwide are trying to better understand the complexities of living in the built environment, such as over-stimulation and reduced natural elements, and how these impact our wellbeing. They are also exploring the intersection of space design and societal resiliency, and how we can fuse utility with mindfulness in the way we access and traverse our urban homes.

While more conventional materials like asphalt and steel will likely always be part of the landscape, what opportunities can we optimize within the negative spaces? How can we design wayfinding to create better navigational experiences, or preserve human touch service points where they're most needed? What is the best way to integrate green space and technology in our design thinking, striking a balance between connecting and disconnecting? And how can we continue to respect the individual, their diversities and experiences, while we generalize wellness solutions? How might we contribute a mental health lens to this discussion, one that takes into consideration a broad spectrum of needs as we reconceptualize our daily living and environment?

Renewed mental health policies, best practices and design guidelines, as they relate to cities and urban environments, should be developed: a Mental Health Design Playbook for developers, planners and city municipal, provincial and federal policy folks. One that uses a "health in all policies" approach, and considers mental wellness and social and economic determinants of health as critical factors in how we redesign public spaces and built environments for better public and mental health. A holistic approach using upstream determinants – better housing, nutrition, psychological supports, early childhood, income, and activity/walkability plus more.

Improving mental health, either through programming and space redesign, using improved biophilic and natural design, and other approaches (e.g. natural light, vegetation, safe spaces) has shown to be key in improving mental wellbeing, productivity and stress levels. This in turn links to improved social and economic capital over time – a win-win for everyday citizens, employees, employers, and society as a whole. This would be a cultural shift in how we value mental wellbeing and its experience in our built environments.



MUNICIPAL BRIEFINGS FOR VENDORS AND PARTNERS

[Siri Agrell](#)

I once asked a panel of technology CEOs if they had role models outside of the sector, leaders they looked to for inspiration beyond the lean/agile/raise/pivot model they know so well. To my surprise, one of them referenced a hospital CEO in Toronto. “His customers don’t want to be there, his staff is entirely unionized and he gets paid by the government,” he said. “The public sector is doing stuff way harder than we are.”

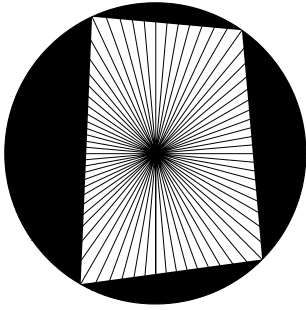
This is an important acknowledgement, and one that many in the private sector are loath to make or even consider. Cities are difficult, demanding, diverse in their populations and their service requirements. The City of Toronto has a \$13 billion+ annual operating budget, 11,000+ employees and almost 3 million stakeholders to not just consider but to serve – think about that in terms of a company and you can imagine the ongoing difficulty of operational management.

A candidate for the Toronto city manager job who had worked at a Fortune 500 before running a city bureaucracy said in his interview that the complexity of municipal government is beyond what anyone can imagine. This is not to excuse areas of failure or ignore myriad opportunities for improvement, but to offer some context to the realities of service delivery improvement in the municipal setting.

Just as there is a tech debt within government – a lack of those in the political or public service realm who are well versed in the functionalities, opportunities or risks of technology – there is also a broad civics deficit within the larger tech and vendor community.

I have heard a CEO explain to a visitor from San Francisco that we elected Rob Ford because people from Oshawa and Burlington can vote in Toronto elections. I have talked to groups who launched homelessness apps without any understanding of how vulnerable people are currently referred into or within the system. They didn’t even know where to look to find this information. Even those who have been city builders for years are often unaware of realities that affect their projects, or how to navigate and respond to them.

This divide is limiting our ability to develop and adopt meaningful new tools and new approaches. In order to fully utilize the potential of outside partners, cities must do better in telling their stories, showing their work, and shedding light on what they are trying to do, why it is hard, and where they need help. From vendors to community groups to advocates, improved understanding of municipal realities at an early stage would lead to better outcomes.



MUNICIPAL BRIEFINGS FOR VENDORS AND PARTNERS

[Siri Agrell](#)

Issues Briefings

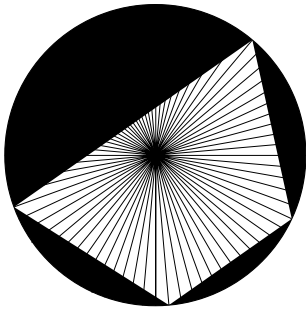
Any company, vendor or consultant looking to move forward with a proof of concept or contract with the municipal government should be required to understand the complexities and realities of the division or issue they are dealing with. Newly elected representatives and newly hired staff are briefed on issues but also systems, governance and compliance – and new vendors and their teams should be too.

These briefings should go beyond simply covering the scope of the project they've been asked to participate in or build. It should not come in the form of a document that you can skim and set aside. Partners should engage with front line staff and policy makers face to face, working together to understand how projects must be brought to council, the interplay of policy, governance, operations. The realities of funding. Of neighbourhood opposition. The consideration of having millions of end users whose needs vary profoundly depending on income, access, geography, language barriers and lived experience.

At a time when we must stand up for the institutions and systems that form the fragile foundation of society, and resist the pull of those who would replace them with substandard alternatives, we must all truly consider what's at stake and acknowledge that progress is more difficult when you are mandated to try and solve for everyone.

As Geoffrey West, the biologist and author of *Scale*, wrote, cities, like living things, are beautiful and resilient because “the system feeds every cell.”

Training sessions do not need to be onerous, but they should be honest, illuminating the realities of our city and its every cell in the interest of forging better partnerships based on a shared understanding of the facts and a shared commitment to truly nourish the whole.



DIGITAL JUSTICE PRINCIPLES

[Nasma Ahmed](#)

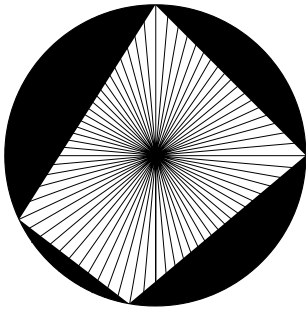
As we imagine the possibilities of urban areas, I often think about equity and justice. Lately, our conversations around cities have focused on the technologies that surround us. Technology is one of the tools in the toolbox, but how we build and connect with each other goes well beyond the technological tools available to us. To this end, one strategy to consider moving forward is to build localized digital justice principles, inspired by the wonderful work done in Detroit.

The creation of localized digital justice principles can allow for us to have a larger conversation about our collective values and needs. It can create a baseline for the city that can be built upon with strong policy recommendations.

We need a foundation, an opportunity for people to engage in what access, participation, collective ownership and healthy communities look like in the digital realm. This will allow for collaborative strategy building that could be decentralized in communities across the city. Our personal interpretations of the technology that surrounds us, or its purpose in the future, is based on our lived experiences.

What we value and connect with is personal and community based, and we have not had an opportunity to navigate that within the city in relation to the digital realm. Yes, the conversation can be difficult, and accessibility is key, but that does not mean we don't have the conversation.

The use of art-based methods and public education processes can create a space for us to collectively imagine our digital futures. Building a digital justice foundation through principles is one way we can ensure justice and equity are at the forefront of how we navigate these new digital spaces we exist in and create together.



CANADA'S CHOICE

[Armine Yalnizyan](#)

Canada is the 10th largest economy in the world, with a fraction of the other economies' populations. We can build whatever kind of world we want. Pharmacare? Child care/early childhood education? Dental care? Post-secondary education? Housing? Public transit? Legal aid? Access to high speed internet? Basic income? We can improve any dimension of our lives we choose.

What we can't do, if we want to see continued improvement in the quality of life for most people, is continue to focus on tax cuts. That includes failing to enforce existing tax rules, and turning a blind eye to tax avoidance.

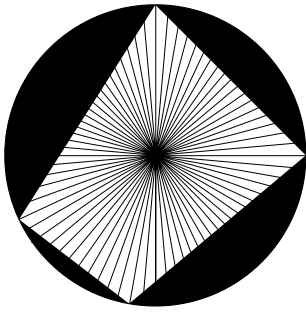
Tax cuts are often sold as the best thing that politicians can do to put "more money in your pocket". Two things are misleading about that framing:

1) The people who most need more money in their pockets are the least likely to be helped by tax cuts. A third of Canadian tax-filers didn't have enough income to pay income taxes in 2016 (37% of women, and 27% of men). Tax cuts can be designed to go to the poorest, but in Canada they've tended to most benefit the most affluent over the past 25 years, because the most affluent pay the most taxes.

2) "More money in your pocket" may mean you have more purchasing power, but you still can't buy something that doesn't exist. Tax cuts don't create one single new child care space in a high-quality early learning centre. They don't add new streetcars, buses or subway cars to congested systems. They don't build or renovate a single new unit of affordable housing.

Not cutting taxes, and collecting taxes that are owed, makes it easier to expand public programs like pharmacare, dental care, child care, housing, public transit, all of which improve affordable access to high quality services that are basic to the quality of life. That puts more money in your pocket too, because if you are paying less for child care, more money is freed up to spend on other things. More importantly, improved access to key services that improve the quality of life means more people can optimize their contributions to the economy. Healthier, more educated, more connected societies deliver better economic performance. More growth. Better lives, individually and collectively.

It drives me crazy when politicians promise to keep your taxes low, freeze them, or cut them, as if that's a good thing. What the tax cut agenda is really saying is "you can't have more, you can't have better". It's framed as being about choice: you are bound to make better choices about how to spend your money than the government. But you can't choose to buy things that markets don't create: affordable housing, childcare, good transit etc.



CANADA'S CHOICE

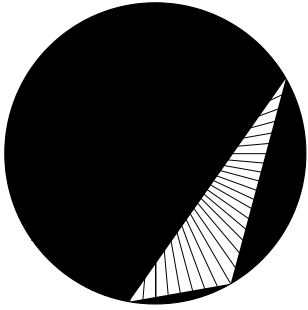
[Armine Yalnizyan](#)

Politicians who offer tax cuts as the centrepiece of their platform don't want you to think too far ahead on the logical consequence of their promises, because they are going to give you less than what is currently possible. What happens if revenues don't grow, or even fall because of bad economic times and lower rates? Inflation and maintenance costs will mean you get less quality and less quantity of public service. These days, tax cuts are a recipe for collective decline, dressed up in individual liberty. It's an empty promise that should be challenged at every election, at the city, provincial or federal level.

Personally, I'd prefer to pay more and improve things while the going is relatively easy, because things are going to get a lot harder and more expensive to improve in a few years. Still, I'm totally OK if the democratic decision is that people don't want to raise taxes and make things better. But we absolutely need to escape this fiscal fantasy that we can improve things, or even maintain them, while paying less in taxes. And if we don't pay more, nothing improves. Even hanging on to what we've got is not going to come cheap. For most of the past 70 years, economic growth delivered more revenues without the need for raising rates of taxation. In fact, we've seen dramatic cuts in tax rates over the past three decades but growth offset the hit that public revenues could have faced. Now, a slowing global economy due to population aging, escalating trade disputes, and more extreme climate events means growth isn't the reliable secret sauce it used to be. The audience for tax hikes may be small, but the majority will soon realize tax cuts are not a 21st century solution to any of the problems we're wrestling with.

Repeat after me: Canada is the 10th largest economy in the world, with a fraction of the population. We can create any type of society we want. Whatever we choose to do, we'll pay for it: through paying more taxes or through demands for more "money in our pockets" that lead to accomplishing less, individually or as a society. That's the choice in front of us. What's your choice?

This entry was adapted from [a Twitter thread](#) by Armine Yalnizyan from April 21, 2018



CANADA NEEDS A NATIONAL DATA STRATEGY

[Jim Balsillie](#)

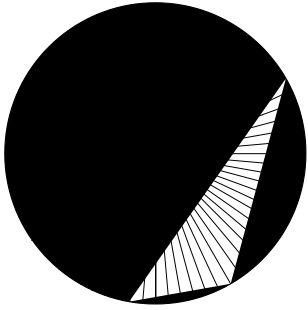
Data has transformed how businesses do commerce and people connect globally, making data the most valuable asset in today's economy. The data-driven economy presents a transformative opportunity for Canadian businesses to grow our cleantech innovation, advancing both our prosperity and environment.

Nowhere is this economic opportunity more obvious than in smart cities. The smart cities segment of the global cleantech market is currently worth \$1.3 trillion and growing 16% per year. Canada aspires to achieve \$20 billion in cleantech exports by 2025. This sustainability and prosperity goal is unattainable unless we create a national data strategy that includes a smart city strategy.

But smart cities are not just another infrastructure or even a regular cleantech project. The smart city industry is underpinned by the mass scale collection of data from a myriad of sensors that drive functional efficiencies and enhancements. They are complex surveillance environments that redefine both public and private spaces; creating new urban, civic and political questions. That is why viable smart cities are designed and built by the government and its citizens in a democratic and mutually accountable way. And then a vendor (or groups of vendors) are chosen to provide technology solutions that perform to specifications set by the government.

Apart from economic development potential, data has many non-economic effects. It has already been used to undermine personal autonomy, create mental health issues, change the outcome of elections and enable anticompetitive practices.

Data governance is the most important public policy issue of our time. It is even more urgent as a policy challenge than climate change because abuse of data compromises the very democratic processes on which we rely to intelligently and effectively address challenges like climate change.



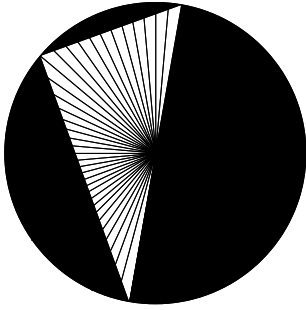
CANADA NEEDS A NATIONAL DATA STRATEGY

[Jim Balsillie](#)

A national data strategy would address both the economic and non-economic effects of data and it would provide guidelines on creation, capture, protection, management, compliance, exploitation and monetization of data. It would also:

1. Ensure that cross-border data and information flows serve the interests of Canada's economy, security and sovereignty;
2. Codify explicit treatment of competition in the data sections of free-trade agreements, including a right to competitive access to data flowing through large data platforms that have de facto utility status;
3. Create adequate data residency, localization and routing laws that protect Canadians so that our privacy is protected when our data flows outside our borders;
4. Include a smart city strategy that governs if, how and under what conditions data is collected and how it's used; and,
5. Support an accredited process to standards and norms that embed the ethical uses for data extraction and processing because data systems are rife with inequity and exploitation potential.

Governing data, both enabling its economic potential and managing its risks, has already become a top priority for global policymakers. The Canadian government must wake up and do its part to ensure that Canadians thrive in the data-driven society. It's time to create a national data strategy that includes a smart city strategy.



HOW SHOULD A CITY LIKE TORONTO PAY FOR TRANSIT AND OTHER INFRASTRUCTURE?

[Mariana Valverde](#)

Infrastructure funding in the Greater Toronto Area (GTA) has taken the form of a political melodrama, with newly elected politicians ripping up their predecessor's transit plans, while multi-billion dollar decisions made in Ottawa or Queen's Park force sudden changes in locally made plans.

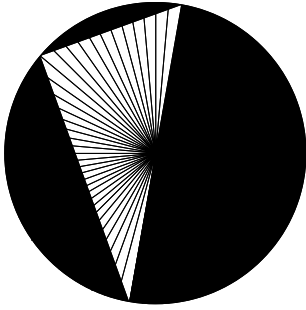
Sidewalk Labs' June 2019 proposal for a waterfront development includes terms like "optional upfront financing". Sidewalk suggests that a revenue tool never yet seen in this part of the world, Tax Increment Financing (TIF), be used to raise money for transit and other needs – even though, if anyone was going to use TIF, it would have to be the City, since only the City has the power to tax (not Waterfront Toronto).

There are two things Torontonians ought to know about local finance. First, private financing (that is, letting a private corporation provide upfront financing for a project, at a high interest rate and with the principal debt passed on to future generations) is far more expensive than municipal borrowing. No corporation enjoys the high credit ratings historically enjoyed by Canadian municipalities. Indeed, Toronto has a significantly better credit rating than Ontario: AA or AA+ from Standard and Poor's and Aa1 from Moody's.

So, the City can issue municipal bonds (also called debentures) and find ready buyers, at a significantly lower interest rate than for private financing. The total City debt is quite low – around \$4 billion, compared to something north of \$350 billion for the province. Only 11 percent of Torontonians' tax bill goes to service the debt, which is very good as governments go (have a look at the US government debt, if you want to feel superior).

If cities including Toronto issue bonds to finance transit, which would be the prudent method, they still need to ensure that 30 or 40 years from now, when the bonds mature, and when the real estate market may have finished its long boom, the revenue will be there to repay the debt. Which leads to the second point: the revenues needed to repay debts and keep the lights on.

The three main Canadian experts in municipal finance, Enid Slack, Richard Bird and Harry Kitchen, have said for years that municipalities in the GTA and cities all through Canada rely far too much on property tax for revenue. They are mainstream economists, not socialists, but have long argued for municipal user fees and new taxes, such as a sales tax, taxes on hotel stays and fuel taxes.



HOW SHOULD A CITY LIKE TORONTO PAY FOR TRANSIT AND OTHER INFRASTRUCTURE?

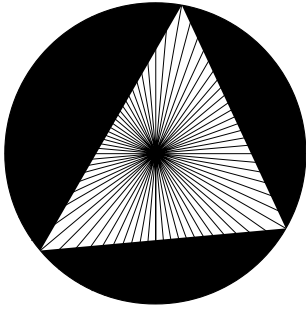
[Mariana Valverde](#)

The main new user fees that other large cities have implemented are road tolls and congestion charges – user fees with the desirable side-effect of reducing congestion and pollution. Even John Tory came around, once, to supporting some road tolls; the Wynne government, in a desperate electoral ploy, refused permission. Now, one would think Doug Ford (whose own government's credit rating is in trouble) might perhaps support this as a measure toward municipal financial autonomy. (Even if he insists on stickers telling people it's city hall that's collecting the tolls).

The expert papers on the website of the University of Toronto's Institute for Municipal Finance and Governance show that Toronto has plenty of room both to borrow more money and to implement new sources of revenue (as do other GTA municipalities). The current political scene is not favourable: John Tory and most councillors insist on keeping Toronto property taxes lower than in neighbouring municipalities, and treat novel fees or taxes as plagues. But the political atmosphere may be changing along with the physical atmosphere. The neoliberal notion that private financing is somehow better for citizens (long supported by the Wynne provincial government) has been shown to be as false as trickle-down economics. New York City has imposed a corporate income tax – a corporate income tax going to city needs, imagine! That is legally out of reach for Toronto; but we've got to find ways to finance our infrastructure needs in a way that is fair and that maintains control in the hands of public authorities.

If we collectively realize that cities are in better financial shape than senior levels of government, we may feel more empowered. We can actually decide to finance, own, and control our infrastructure. And if we finance and control our transit and utilities, we'll be able to collectively decide how to better distribute the burden – by lowering TTC ticket prices, for example, and instituting a congestion charge for private cars (including Ubers) that can go towards transit.

In 1946, Torontonians voted in a referendum to assume new municipal debt in order to finance public housing. In 2019, would we vote to assume some debt in order to get more and better transit, in a way that retains all the control locally and in public hands? I would.



A WALKABLE COMMUNITY 2.0

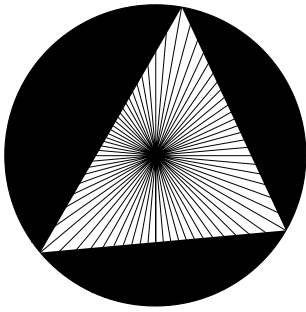
[John Parker](#)

At the core of it all is walkability.

Design principles should not just ensure that walking from place to place is an option, but should assume that it is the preferred choice.

This principle would drive the following features as a natural result:

- Amenities and destinations located close to homes – and vice versa. Places to live, work, shop, and play, all in general proximity to one another. Buying a loaf of bread, picking up a prescription, or catching a street car, would not require a trip to a parking lot two miles away;
- Every opportunity would be seized to include green space: shrubs, hedges, trees, hanging plants, lawns, whatever. An outdoor environment that is pleasant and attractive.
- Streets narrow enough to allow pedestrians to cross without playing a real-life game of Frogger;
- Buildings located along main streets that are large, but not huge. Major roadways lined with corridors of five-storey (+/-) buildings, wide sidewalks, and large trees. Ruthlessly reject the current standard approach that promotes tall towers at intersections inevitably separated by long stretches of two-storey shops or - in some cases - single family dwellings;
- Along main streets, elevation within buildings would influence uses: retail at grade; office and/or high-quality residential immediately above; small scale/affordable residential above that. This would introduce diversity of use and residential affordability within the same footprint;
- Homes mostly in small clusters of multiples. Few – if any – singles. Instead, semi-detached, row houses, or low walk-up apartments – but not towers. Living spaces all to be close to the ground; not dependent on elevators.
- As much as possible, spaces behind homes would host laneways, parking areas, and utilities. Streetscapes would be open and green.



A WALKABLE COMMUNITY 2.0

[John Parker](#)

- Ample public spaces – in the form of parks or schoolyards – to promote community activity. Not every park area need be large, but no household would be beyond biking distance from an open area large enough to host a soccer game or baseball game in summer or a decent snowball fight in winter. Each park would have shade trees, sitting areas, and play areas for small children.
- Speed limits of 30 or 35 km/h throughout. (For this speed limit to work it has to be universal throughout the community; variations in speed limits only invite confusion and non-compliance.) Design cues (“traffic friction”) where possible to make this the natural speed.
- Conveniently located high order transit that connects readily to the city’s major transit lines. The new district must have an LRT line or, at least, high capacity lane-separated streetcar lines on main roadways.
- By all means, exploit opportunities for technologies to enhance livability. Universal wi-fi, district heating/cooling, subpavement snow melting; underground garbage collection are all possible; every opportunity to pursue these ideas should be explored. But remember that the goal is to build a community; not a database.
- Make the most of the water’s edge. And make it a public asset, not a private preserve.

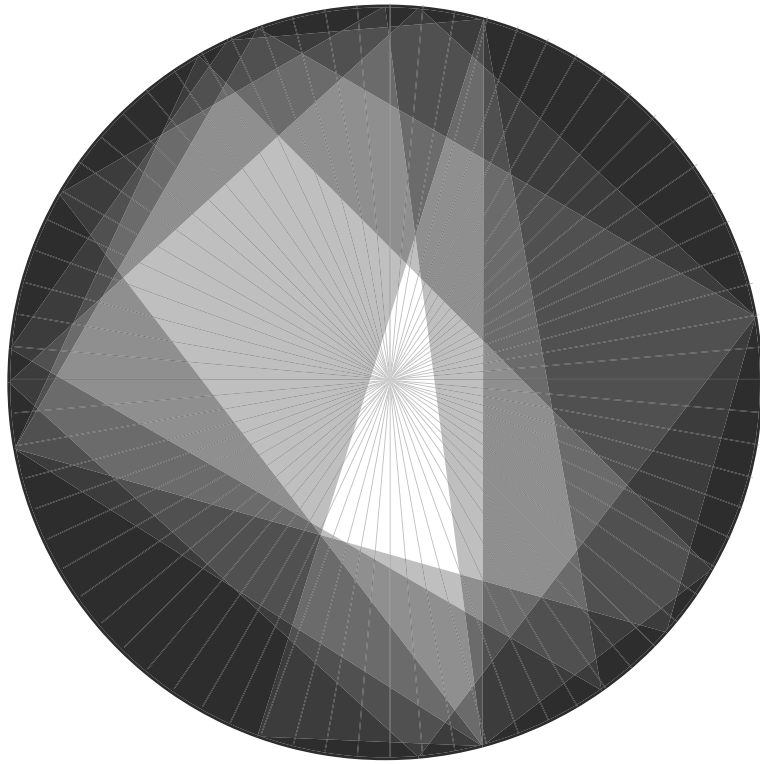
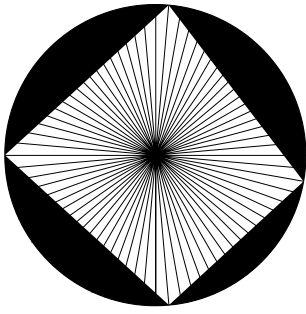


TABLE 6



COMING TO TERMS WITH DIGITALLY-ENABLED CITIES

[Howard Tam & Amy Zhou](#)

The advent of digitally connected cities presents a change unlike anything we've ever experienced. We say this from a systemic perspective – the space that exists above governance – somewhere in the ether of the “social contract” and the concept of society. In this space, we've historically had human actors that are provided power to govern, manage and create, and human actors that serve and deliver on the objectives that are agreed on.

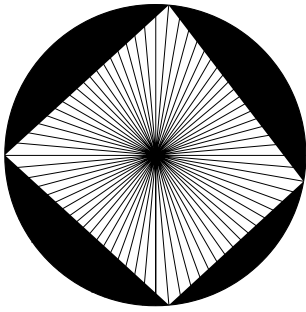
Digitally connected cities represent a new systemic model of the world. In the past, technology was inserted into this model as a means to assist in these objectives – making things faster or more efficient. “Smart” technologies change this model fundamentally, not only because they ask us to accept another form of new technology, but because their incorporation actually require us to fundamentally redesign our mostly manual society. “Smart” technologies are new agents – both human and machine – that we must accommodate, in a space that affects the everyday lives of many – the city. This systemic model builds in new power relationships and, crucially, a new currency – data – that not only allows for very fine grain details of human behaviour, but, like many currencies, will determine how these power relationships play out.

This sets the stage for systemic tension. This is already evident in the advent of the “techlash” and public opposition to specific “smart” urban projects. But the core issue is that society is struggling to figure out where these new agents belong, how to manage this new currency and which of these new power relationships are acceptable. And unless we can have a productive dialogue about how this is all structured, the tension will only continue to build up and be released at specific reactionary touch points.

What underlies this?

The advent of these trends is not new, it's been years in the making. The ongoing permanent austerity on the part of government has led to years of contracting out and a public culture that believes government is too slow and can't get things done. (Indeed, a more democratic and fair society does require government to stop and think more often – which isn't a bad thing.)

A consequence of these sentiments is to drive a culture where it is believed that private actors know best and are best able to deliver. While this is true in some cases, issues arise when government comes to rely on them. Government loses out on critical technical knowledge and an ability to understand how changing technologies work.



COMING TO TERMS WITH DIGITALLY-ENABLED CITIES

Howard Tam & Amy Zhou

Enter the age of digital technology and online services. Government has so far been unable to deliver meaningful technological solutions demanded by the public and goes back to contracting out. This might work for specific technological solutions, but at the scale of the city with its myriad complexities, identities and needs, private entities are not designed to handle this level of complexity and this model starts to fall apart or delivers outputs that are don't "feel 100% natural".

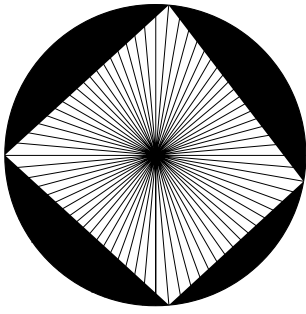
At the same time, technology development has been driven by specifically defined problems leading to specific solutions. Tools and tactics are driven by tight timelines, developing "good enough" solutions that meet the majority of user needs (but not necessarily all) and a mentality of "move fast and break things." Couple this with a hyper-capitalistic model where investment desires to minimize risk and maximize profit and we begin to see technology companies that seek to dominate sectors, game the system in their favour and commit ethical lapses. All of this, of course, is being made easier with the new currency of data – which are being stockpiled in large quantities – leading to new power dynamics and new forms of agency for those who can build it up the fastest.

Merging these two worlds together at the scale of a city will very obviously cause tension because objectives differ, and will be exacerbated because the current delivery actors (government and technology companies) are not well equipped to answer the fundamental questions that underlie these tensions. As a result, both sides resort to tried and true tactics – sloganeering, attempting to manage outcomes or public relations blitzes. The rest of society is left in the middle trying to grapple with the fundamental re-design of this system, yet the tension and inherent conflicts continue to simmer.

What can be done?

It doesn't help that civil society also does not have a strong handle on these dynamics – many people are content to be users of technology and are unaware of how it works or what the issues and trade-offs are. Our view has been that the first step is the need for stronger digital literacy – and not a few lectures in the classroom kind – but deep, experiential learning and feedback.

Our quick solution to this has been the Smart City Playground – a pop-up experiential space to discuss and experience these issues/tensions and discuss them at length. But much more work is needed. There is a need to get co-ordinated across the country and around the world because society needs to learn about this fast enough in order to get to the second need – having an informed discussion about the core systemic issue.



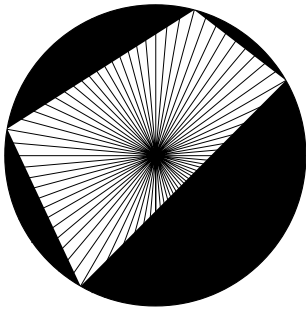
COMING TO TERMS WITH DIGITALLY-ENABLED CITIES

Howard Tam & Amy Zhou

Only when there is a general understanding of the issues and trade-offs can we begin to have a real discussion about where the new actors, currencies and power relationships should belong. Without this, we run the risk of these new agents coming in by force, or risk systems defaulting with a host of unforeseen consequences.

These are some of the fundamental questions we pose as part of the Playground. We hope that everybody thinks carefully about:

- Can governments and technology companies in their current form deliver on the urban challenges we face?
- Is the technology sector equipped to deal with large urban issues?
- If data is a new currency, what do the “capital” controls look like?
- What do you need to know about in order to have a more informed discussion?
- When new agents, especially virtual ones, are in the picture, does this change the fundamental vibe and raison d'etre of a city?



THE TIME AND SPACE OF URBAN TECHNOLOGIES

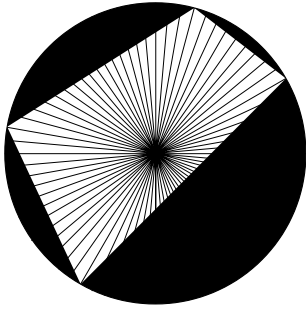
[Roger Keil](#)

A major set of challenges in how cities grow and evolve over time (or shrink and decline for that matter) is related to the interconnected time-space they inhabit. This is always linked to the social and physical technologies that shape urbanization at any given conjuncture: railways build different cities than automobiles. Today, technologies are ostensibly measured in intangible metrics. It is all about data. In a world of planetary sub/urbanization, we are now used to seeing the urban as functionally and symbolically spread across continents and oceans, and data networks, wired and not, are indicative of these relationships. As are the cities that anchor them. I want to be more modest here, though, and talk about the urban region, not the urban world.

Let us first consider time. The inevitability of technological progress needs to balance the inevitability of its eventual decline. If we build a neighbourhood from the Internet up, and if this entails disrupting “the neighbourhood itself” as Nabeel Ahmed muses, we need to ask what its demise might look like. What will be left when the ever-changing built environment gets swept away by a new and accelerated wave of technological disruption?

We know from the big box retail outlets that colonize our urban periphery that they are amortized after a few years and will be torn down sooner rather than later. They will never be the old buildings Jane Jacobs tells us are necessary for urban progress and innovation. What kind of ruin will the technology campuses leave us with in a generation? We need to ask ourselves: How does a smart city die?

Secondly, let us look at space. Cities and regions under capitalism by definition have unequal geographies. This is a function in the first instance of land markets that create hierarchies of value and that appreciate some areas (and their people) more than others. A new glass and steel condo tower downtown has a different meaning and value than a rental concrete slab tower in Scarborough from the 1970s. Mainstream rent theorists tell us that in their world of supply and demand, there is little to be done about the inequalities that are built in stone over generations, sometimes centuries.

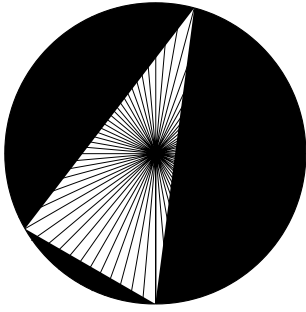


THE TIME AND SPACE OF URBAN TECHNOLOGIES

[Roger Keil](#)

In Toronto at the current moment, this is connected with what Michael Edwards calls the “fetish of agglomeration.” It leads to super-dense, brutally handsome environments for life, work and play. Those divide into a) increasingly uninhabitable, forbidding environments for the poor, often in the suburban grey spaces of in-between zones away from everything that is central and useful – those environments are variably colonized and policed or abandoned and forgotten; and b) into exclusive and exclusionary environments for the rich, often in locations that allow access to power, work, entertainment, education, health care and commerce. Protected by status and walls, those central spaces are impenetrable for the poor except to access them for the menial, low wage service work they are expected to perform on their terrain.

The challenge for city building in the age of the smart city and in the era of anthropocenic climate change remains how to build new for sustainable and adaptive use and how to build equal spaces that defy the capitalist laws of uneven development. If those two principles are not respected, a city that emerges from the Internet on up will risk dying prematurely or explode in social upheaval along the lines of contradiction it builds into its fabric.

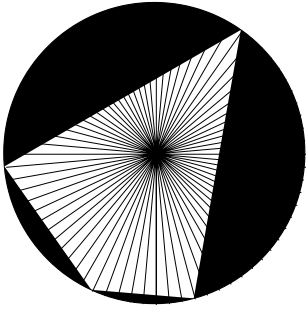


THE COMMUNITY COLLABORATORIUM – COMMUNITY CENTERS FOR THE 21ST-CENTURY

[Nigel Jacob](#)

Many of the challenges that we face in our cities boil down to facilitating collaboration and partnership across institutional boundaries. Enabling a community and a local library, say (or local government or university, etc.) to come together into an open and inviting space to brainstorm ideas and how to execute them could facilitate a new era of people-led innovation in our cities. One model for this could be fab labs – but by their very nature they presuppose a solution that is a device of some kind, or some other built form.

A community collaboratorium is a space that supports and facilitates groups to come together and to explore new ideas. Ongoing programming at the collaboratorium then could allow for the execution and development of these ideas. Discrete pots of funding provided by local government or other local anchor institutions could go towards the deployment of these new programs or services in the neighborhood. In many ways a community collaboratorium becomes a 21st-century community center with a focus on supporting the community in taking on local challenges themselves.

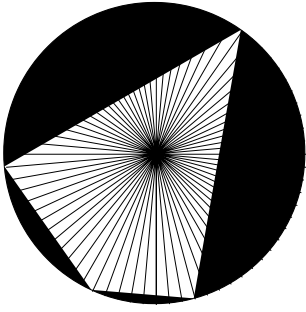


RADICAL RURALITY: IMAGINING MULTIPLE FUTURES BEYOND THE CITY LIMITS

[Ashleigh Weeden](#)

Rural places represent the nexus of significant local and global transformations that will impact society through food, energy, climate change, migration, governance, and economic development - transformations that are shaped by the formal policies and informal relationships that continually constitute and reconstitute the structures that govern our societies. As we wrestle with climate change and the consequences of the global restructuring of national, sub-national, and local governments - and the increasing concentration of decision making power and capital in cities - we cannot afford to ignore the rural if we are going to find a new way forward.

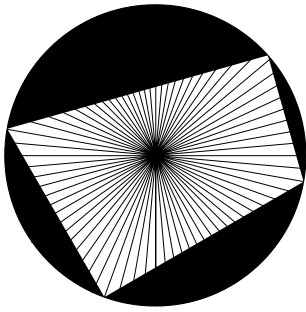
So, then, it seems impossible to talk about the future of cities without considering the importance of envisioning multiple futures - including, and maybe especially, futures shaped in and by places that lie outside current urban imaginations. The rural/urban divide - messy and contested as it is - remains stubbornly steadfast in the ways we talk about technology, community development, and public policy. As such, this divide plays a critical role in both the conscious and unconscious processes through which we determine who makes it into the picture, and how they are represented, when we start making plans for the future. The digital divide is not just about access to technology. Rural areas do often lack the basic access to enabling broadband infrastructure that so many urban areas take for granted, due mostly to ineffective and underwhelming investments that highlight just how low rural communities fall on most state/provincial or national policy agendas. However, there are multiple digital divides, in terms of both capacities and capital, that serve to layer digital injustice over deep, persistent, and systemic social and economic inequalities. Further, there are rural assets and opportunities that exist despite, and sometimes because of, a separation from the urban. Imagining rural futures provides fertile ground for exploring how we might work around, through, and beyond the sharp edges of these divisions.



RADICAL RURALITY: IMAGINING MULTIPLE FUTURES BEYOND THE CITY LIMITS

[Ashleigh Weeden](#)

Tangible and intangible realities - from the spatial to the historical, the economic to the social - shape all places, rural and urban alike. Just as there is not one single urban identity, there is not a singular rural. Multiple ruralities create tension and diversity both between rural and urban places, and among differently-rural people and places. Rural communities deserve to be thought of as more than quaint weekend retreats for the wealthy and bored, more than merely productivist spaces for sourcing food or energy, and more than just an urban-alternative, but rather as complex place-based ecosystems in their own right. Problems arise when we assume that rural places are simply cities- in-waiting, runners-up in the global race towards an urban future. What we currently face is a failure to imagine and value what might be offered through a vision that accounts for multiple futures. It's time to dig into the radical potential of the rural by leaving behind the outdated assumption that both rural decline and unchallenged urbanization are the twin-edges of some inevitable compromise. Rural places are not cases for experimenting with the policy equivalents of either palliative care or plastic surgery. Rural areas can be places of opportunity, innovation, and diversification, if diverse notions of place can be reaffirmed in new and different ways through thoughtful approaches that recognize the right to the city, but also the right to multiple futures beyond the city limits.



MUNICIPAL REGULATION, DISRUPTION & PUBLIC GOOD

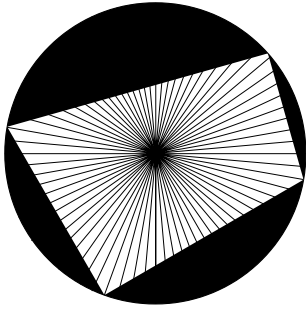
[Shauna Brail](#)

The concentration of people, diversity of activity and collision of ideas in big cities also makes them places in which innovation and change converge. How municipal governments ought to respond to change – particularly disruptive change with uncertain impacts – is increasingly a source of tense debate.

There are three elements of certainty in this new normal of disruption. Municipal governments need to balance: nimbleness with care; asymmetries of knowledge with new knowledge creation efforts; and expectations of inclusive engagement with expert and evidence-based input.

First, rapid change is disruptive to government decision making processes and timelines. Municipalities design policy and regulation to set priorities and directions for public good. The most effective regulations are those that begin with a particular goal in mind, and then identify how to design regulations that assist in meeting a set of pre-defined goals. The speed at which private firms operate means that in order to respond effectively, governments need to be dynamic and nimble. However, in policy-setting this has to be weighed against the need for government to be thoughtful, careful, and protective.

Second, there are disparities leading to particularly deep asymmetries of information between municipal governments and multinational firms. For instance, multinational firms have access to global marketplaces for capital, information and talent. These firms have the ability to collect insights about global regulatory practices and challenges that no individual municipal government could hope to acquire on their own. To respond effectively, collaboration is key. Municipalities must learn to build networks that facilitate the sharing of information with other cities, levels of government, and with all manner of stakeholders. There is no one-size-fits-all solution for cities – each operates under a unique set of circumstances, history and trajectory.

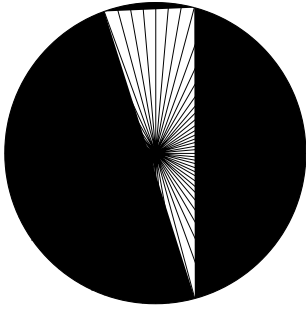


MUNICIPAL REGULATION, DISRUPTION & PUBLIC GOOD

[Shauna Brail](#)

Third, inclusive engagement matters. Welcoming a range of voices, ideas, organizations and people, including those who may be new to the city, is part and parcel of a healthy civic society. And at the same time, it is crucial to understand that ensuring meaningful, consultative input does not mean that everyone has an equal voice. While engagement and co-creation is an important component of decision-making, expert and evidence-based input may be paramount. Inclusive engagement, along with democratic practices, also mean that compromise is fundamental to managing change.

Canadian municipalities and our governments, industries, institutions and people are capable of responding to disruption. Collectively we are learning to adapt, build new capabilities, design policy and regulation, and continue to act in favour of the public good.

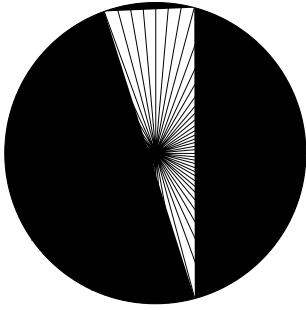


EXTRACT FROM REVIEW OF AGAINST THE SMART CITY BY ADAM GREENFIELD

[Tim Maughan](#)

The “smart city” idea treats spaces generically. It does the same thing (makes the same mistake) with time, technology and populations: “in the just-so stories we’re told about the smart city, the technology of everyday life advances, but everything else somehow magically remains the same. From family size and structure to work arrangements to the conception of the self, everything proceeds as though sequestered, serenely untouched by the radical discontinuity in the technics of the daily.” It views the city as a set of values and beliefs that are somehow universal and unchanging; that would have failed to predict that The Bowery could become home to world class architecture, that systems can be affected by fads, fashions, and other factors beyond technological progress, or that communities can and will shift and mutate. In fact it is this last assumption - the dismissal of the role of urban populations to be anything beyond teachable statistics - that makes up the crux of Greenfield’s argument, as he asks who - beyond IBM, Siemens, Cisco et al - the smart city is really for.

For Greenfield, the tech provider’s commercial imperative to pander to the potentially oppressive policies of city and state governments leads to the most disturbing aspects of the brave new smart city. He points to promotional material for the “Intelligent Operations Center built by IBM for the city of Rio de Janeiro, a \$14 million facility that fuses data from weather stations, traffic cameras, police patrols, sewer-mounted sensors and social-media postings into a synoptic, war room-style overview...[that] will help municipal governments ‘monitor and manage city operations pro-actively [sic] and...respond rapidly and effectively to emergencies.’ But the specific ‘emergencies’ contemplated in the case of Rio de Janeiro apparently include demonstrations by favela residents for their own right to autonomy and self-determination...IBM’s own materials specifically contemplate the use of the Center’s capabilities, instead, to guide favela pacification operations, going so far as to suggest ‘Which streets will require the most troops?’ as a question an administrator may wish to submit for computational consideration.”



EXTRACT FROM REVIEW OF AGAINST THE SMART CITY BY ADAM GREENFIELD

[Tim Maughan](#)

Greenfield hammered this point home most effectively during his New Museum talk with a series of slides from recent uprisings and protests - Tahrir Square in Cairo, Taksim Square in Istanbul, Zucotti Park in New York - all urban spaces that held host to events that are fundamentally incompatible with the smart city philosophy, and that it would, by its own definition, attempt to quash as unprecedented examples of the very kind of chaos and disruption it is designed to negate. The smart city may not have been conceived as an intentionally oppressive tool, but in its eagerness for some kind of idealised, unobtainable efficiency it attempts to reduce citizens to generic, agency-less statistics - and hands unscrupulous regimes the tools to clamp down on any citizen's attempts to prove otherwise.

Extract from "We're listening to Adam Greenfield speak AGAINST THE SMART CITY", Arc Magazine Oct 2013

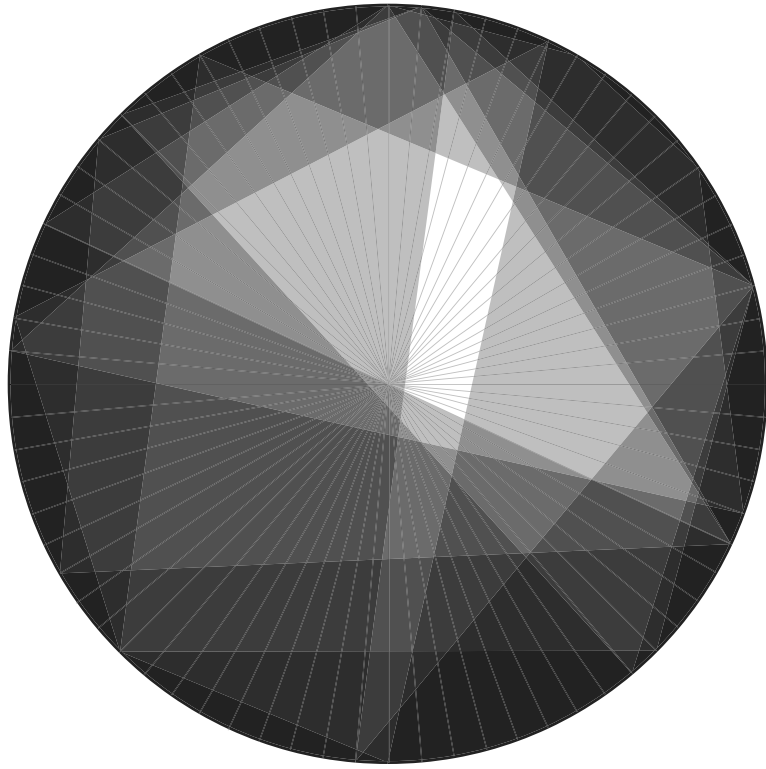
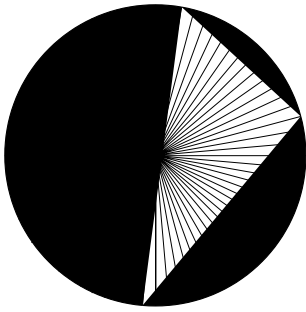


TABLE 7



HEALTH+CITIES

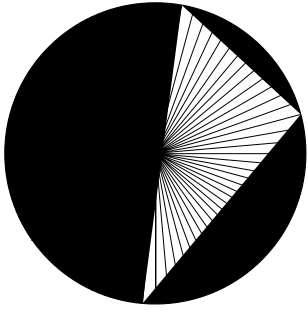
Mojan Jianfar

The future of cities is one that considers the physical and psychological impact that the built environment has on our wellbeing. While we are increasingly considering the physical health of residents in the planning and design of our urban environments, we are less familiar with planning for mental health.

Growing research in the field of psychology and neuroscience indicates that our buildings and spaces shape us and have significant psychological and emotional impacts. The research is vast. This is not an exhaustive list but some inspiration for building our future cities and how we want to live in them.

Research shows that:

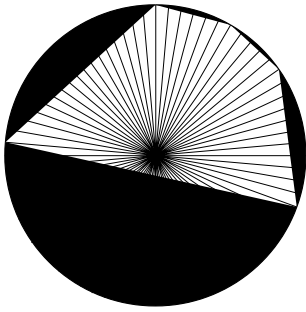
- urban green spaces help to boost mental and physical health
- street lighting helps to reduce anxiety and fear
- public spaces that help to encourage pro-social interactions not only contribute to a sense of place but also reduce feelings of isolation that are often prevalent in big cities
- more visual complexity of spaces – the geometry and arrangement of spaces – can help us to feel calm
- tree lined streets not only result in positive emotional impact but can also have positive economic impact in an area
- noise and sound pollution has negative short and long term impacts
- access to arts and culture in the public realm has positive emotional and social impacts
- colour plays a significant role in our emotional health, having calming or positive emotional impact
- access to places for play or integration of playfulness within the urban fabric has positive impacts on children's wellbeing and development (and adults too!)
- improving wayfinding and people's navigation around cities reduces stress and anxiety



HEALTH+CITIES

Mojan Jianfar

You get the point. The research is there, but it largely remains in silos. City building should be increasingly interdisciplinary, combining urban design, planning and architecture with psychology and neuroscience. Lessons from the cognitive sciences should actively influence city building in how we build policy and strategies, program and design spaces and buildings, and even the material and colour used in spaces. There is the potential to study and monitor how our urban environments and structures are impacting us, our mood and mental state, and to take steps towards building healthier and happier cities. Building more responsive and resilient cities. Toronto should be putting mental wellbeing at the centre of its planning strategies.



IN VISIBLE CITIES

[Asad Chishti](#)

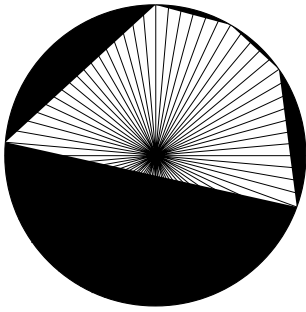
Most of my life has been spent in cities (or in transit toward them). It is only in the last decade or so¹ that the majority of humanity alive has begun to call cities their home. I'm always impressed by those able to avoid the more obvious cities (Toronto, New York, Vancouver, Montreal, London, Paris, New Delhi) for "lesser" ones and nurture their livelihood there. I'm thinking of Jim Siemens and Anna Ringstrom (Oxbow Architecture), Andrew Steeves and Gary Dunfield (Gaspereau Press), Av and Karen Singh, and others.

Cities (hopefully) offer you a bit of everything at decent prices*, convenience, inconvenience, injera bread, dosas, burgers, falafel wraps, the choicest thai food, dumplings and more. Cities do this in a remarkable swath of ways and a long list of seemingly simple things add up dizzyingly fast for the systems to work and hopefully play together. Think sewage, waste, libraries, water delivery, gas, electricity, transit, mail, internet, healthcare, schools and more.

And yet there are concerns I have long held about the trajectories of cities, certainly Canadian, but others too. They aren't just focused on the technicalities around issues such as traffic, bicycle lanes, infrastructure, internet, affordable or attainable housing, green spaces, electoral representation, participatory budgeting, or voting reform. Or even solely the ability to respond to changing population trends, ageing or "disabled" populations, or a sizeable youth demographic.

All the cities I've considered making my long-term home: Thunder Bay, North Bay, Halifax, Kingston, Halifax, Whitehorse. An important priority and consideration for me is quick access to and a (perceived) harmony with nature. Similarly important, a healthy relationship with farmers i.e. food producers.

I met a produce (fruit + vegetable) truck driver in Prince Rupert years ago, while waiting for a ferry. They told me about what teachers on Haida Gwaii called the heartland (cities) and the hinterland (countryside). At this point I had been thinking and ruminating, what I thought was, deeply, widely, actively about the most important problem I personally could work on. I was striving to figure out, and still am, the utility of purpose beyond joy.



IN VISIBLE CITIES

[Asad Chishti](#)

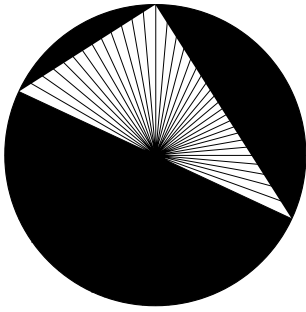
One of the growing disparities, inequalities, disconnects in our societies and individual lives is the lack of middle ground between those who live in the heartland and the hinterland. Once again, this is not just about affordability, access, placemaking, who gets a chair at the table. Those are all symptoms of a larger lack of discourse. The manifestation of the same imbalances society has persistently had will continue to pervade new projects (and technologies).

There is no doubt to me that one of the most important conversations which isn't happening is that between urban and rural communities. This is how we further insulate ourselves from not just an essential cross-pollination but in fact a vital component of good community health.

We need more bridge builders and then we need us all to meet at various points along the bridge: urban, suburban, rural, subrural. Ideally we meet halfway but not always, and not just at the extremes as we seem to be more and more lately.

*Until #gentrification

[1] <https://ourworldindata.org/urbanization>



CITIES COULD BE THE KEY TO BETTER DIGITAL GOVERNANCE

[Mark Surman](#)

Cities and the internet have much in common. Our personal and professional lives take place across their sprawling landscapes. They are environments in which we live, love, work, buy, sell, play, learn and raise our children. And, at their best, cities and the internet are vibrant places shaped collectively by the aspirations and actions of the many people who live within them.

Yet, there is an important difference beyond the fact that one is physical and the other is digital: most cities are carefully governed to ensure they stay vibrant and healthy. The internet is not.

I believe that cities have something important to teach us about healthy internet governance -- and maybe even a role to play in doing the governing.

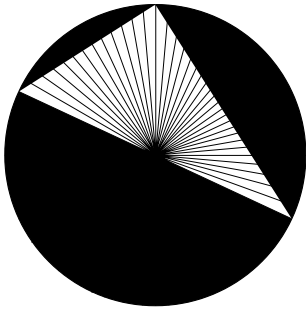
Over the last 100 years, most cities have become skilled at taxing, regulating, planning and building things. They balance the creativity that flows from private actions (building a house, opening a store, organizing a concert) with the stability and collective good that flows from public actions (we have clean water to drink, people can get around easily, buildings don't fall down). A city that strikes this balance well is a city that is alive. People want to live there.

In contrast, the internet has gone mostly unregulated over the 25 years since it began its meteoric rise. Of course, this has allowed private actions -- from the writing of bloggers to the app building of tech companies -- to build out a global communications system used by half of humanity. This is a good thing. However, the lack of regulation has meant public interests like privacy, shared infrastructure and open markets have been left by the wayside. These things are now creating widespread problems in societies around the world.

Which brings us to the question that many people are asking these days: how do we want to govern the internet? And how do we preserve its vibrant commercial and civic life while also making sure it serves our collective interests as we do so? Most look to nations and international bodies for answers. Unfortunately, with a few exceptions, they have made little progress.

Watching the Sidewalk Toronto file unfold, I have started to flip this question on its head. What if we governed the digital realm more like we govern cities? And, what if major cities stepped up to set the rules of the road for big tech companies who provide services to their citizens?

As I've dug into this question, I've come up with at least three reasons that cities should play a stronger -- and more skilled -- role in governing the internet.



CITIES COULD BE THE KEY TO BETTER DIGITAL GOVERNANCE

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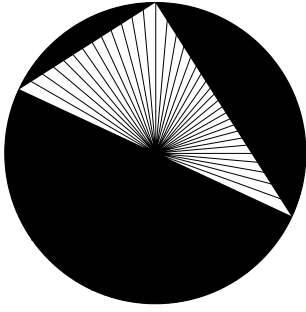
They have to. We live in two intertwined environments today, the physical and the digital. Our urban lives now have a digital layer, a layer that is getting thicker and thicker. City governments need to set the rules of the road not only for the Ubers, Airbnbs, Zipcars and Sidewalk Labs of the world, but also for all of the old school condo and mall developers that are increasingly weaving sensors and data into what they build.

- They know how to shape what actually gets built. Cities deal with developers all the time, working through plans to balance private and public interest. And, when something needs to be built by and for the public -- like a subway -- they build it directly.
- They play the same role in shaping the technology that is being woven into our urban fabric, making it more likely that the digital layers of our cities benefit everyone.
- They can build new norms for the internet as a whole. If the world's biggest cities demand that companies work with citizen run data trusts or that ride sharing data is shared with government for public benefit, these practices are likely to become norms. Tech companies want to implement standardized systems. Cities could have a strong influence on standards as they approve 'what gets built'. These standards would likely spread widely into all of the products and services they leverage.

Of course, cities will need conviction and skill if they want to take on these roles. Most aren't equipped to do this today. We see a few examples of this conviction in initiatives like the [Cities for Digital Rights Declaration](#), which calls for things like privacy, transparency and inclusion. And you see some of the necessary skill from innovative city CIOs and CTOs, like Barcelona's Francesca Bria. Yet, these examples are small and rare.

Which brings us back to Toronto.

Whether our remaining waterfront is developed by Sidewalk Labs or someone else, it is clear that sensors and data collection will be part of the package. They already are in a handful of other developments. We urgently need to up our 'digital urban planning' game -- and we have a chance to shape how to do so.

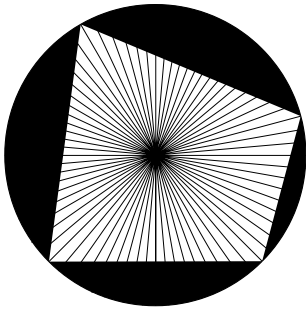


CITIES COULD BE THE KEY TO BETTER DIGITAL GOVERNANCE

[Mark Surman](#)

There are two concrete things we should do immediately to move down this path. The first is to adopt a set of made-in-Toronto data governance principles like the ones [proposed by Joe Cressy](#) and others. The second is to hire a visionary young CIO or CTO who is empowered to shape and implement digital governance for Toronto. Toronto should do these things now.

Of course, figuring out how to do internet governance well -- at the city level and anywhere else -- will take time. And, importantly, will take democracy, experimentation and the involvement of real people who live inside our cities, and our internet. I'm hopeful that cities, including Toronto, can play a central role in making this go well.



PULLING ON THE THREADS OF CIVIC IMAGINATION

[Chris Green](#)

Threading the Needle

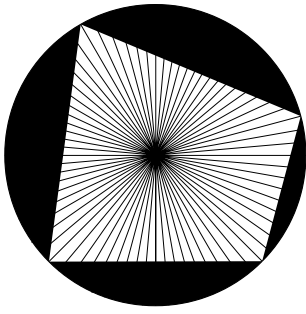
What kind of experiences do we want to create when designing cities? Answering that well starts with a new kind of design practice. Capturing subjective experience provides us with one of the most accurate means of modelling the future, and the world we want to live in. In a time when cities are being shaped by technical innovations and understood through complex data analysis, storytelling provides a much-needed antithetical approach. It does not attempt to create the same abstractions of the world as some of our quantitative counterpart techniques do, reducing reality to lines, numbers, planar surfaces and binary conditions. Instead, the description of an experience is a mirror to reality, its precision born out of its inherent ambiguity, breadth, and greyscale. Data analysts can only dream of such resolution!

Stories can be drawn as a line through space and time, threading together the narrative of our everyday lives. Creating these threads of experience allows designers and planners to work toward a world that fits desired outcomes, driven by a clear story of what the future looks and feels like, and a common consensus of where we're heading. These threads become design blueprints, an informational backbone allowing us to strategically choreograph spaces, services and interactions as holistic systems that tie together our experiences.

Protagonists

So who are the protagonists? Telling these stories forces us to dig a bit deeper and understand for whom we are designing. All too often, we target the average user, a generic human being that probably doesn't exist, treated like a Vitruvian man yet built up out of assumptions. Instead, embracing the inputs of our subjective experiences acknowledges that we are all different, and that our worlds can be designed to respond to our ranging needs and desires.

Equally, our protagonists may not be human; following the journey of a migrating bird enables us to critique design for the preservation of natural habitats. Similarly, as technology advances at a scintillating pace, digital creatures from municipal robotics to AI assistants are developing into characters with a place in our world. Following their narratives will allow us to define our relationship to these creatures, our interactions with them, and their integration into our human environments. Consciously choosing and researching these protagonists reflects the value we place on them, and the empathy with which we treat them as characters within our world.



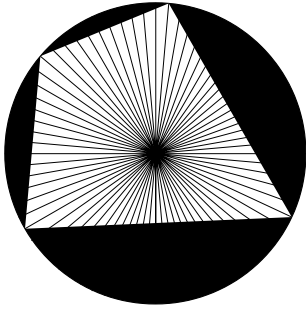
PULLING ON THE THREADS OF CIVIC IMAGINATION

[Chris Green](#)

Tomorrow's Headlines

We have the opportunity to take a suite of alternative formats more seriously, ones that are not typically seen across traditional design and construction processes. Postcards, newspapers, film, amongst others, are prevalent artefacts that we readily consume, already being used to tell stories of events, memories, encounters, and imaginary places. Let's use them! These formats are perfectly suited to narrating the future – they transport us to alternate realities so that we can see where we're heading. Their familiarity and digestibility make them perfect communication vessels, as well as powerful participatory tools, for those who cannot draw or read a floor plan can certainly tell a story of their hopes for the future.

Stories of subjective experiences provide us with a fishing net for capturing the layers of complexity that shape our lives; visualising these creates tangible previews and shared visions of a better world; and writing tomorrow's headlines gives us a trajectory from which reverse-engineering the future can begin...



PUBLIC LIBRARIES IN AN OPEN, SMART CITY

[James Chan](#)

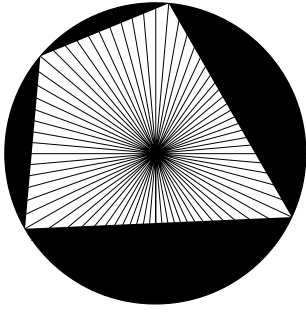
One of the ideas that came out of the dialogue and debate around Sidewalk Toronto was that the Toronto Public Library could be the home of a civic data trust – an independent entity that would act as the steward and guardian of the smart city's data, regulate its collection and use, and ensure public ownership, access, and control.

The merits of this proposal aside, it led me to wonder: what other roles could our public libraries play in the open and smart cities of the future?

Today in many library systems, you can visit certain branches and get free or low-cost access to technology tools like 3D printers, audiovisual equipment, and digital media editing software, as well as training and support from library staff on how to use them. How could this model of open and equitable access be expanded beyond specific technologies, and applied to a broader lens of helping residents actively and fully participate in civic and democratic life in a smart city?

I would love to see a smart city with the library at its literal and figurative core. It would be appropriately staffed, resourced, and given the explicit mandate to help residents increase their civic and digital literacy; engage them in more accessible, transparent, and equitable opportunities to participate in decision-making; and empower them with the means and methods to contribute to collective problem-solving.

This means that in addition to recommending a book for your child, helping you with your research project or job search, or lending out a musical instrument or a wifi hotspot, your friendly neighbourhood librarian could also help you understand how and when to influence your city's strategic plan, introduce you to the urban planner in charge of the new development on your block, and collect your proposal for this year's participatory budgeting process. They could request new or updated open data from other municipal departments on your behalf, lend you the equipment you need to measure air quality data around your school, and administer micro-grants for community-led initiatives or innovative solutions to local issues. If you have a problem, an idea, and a desire to help make your community a better place, the library is there to connect you, support you, and show you the way.

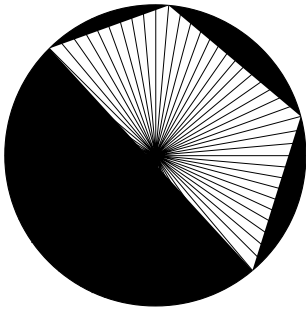


PUBLIC LIBRARIES IN AN OPEN, SMART CITY

[James Chan](#)

There currently exists a sizeable gap between residents and their (real and perceived) ability to influence their city's decision-making process and contribute ideas and solutions to solving collective problems. Smart cities and their accompanying technologies can diminish or exacerbate that gap even further. It all comes down to whether or not we believe that residents should play a prominent and central role in how our future smart cities are designed, governed, and run. And if we believe in people over technology, then libraries are one of the public institutions best positioned to help us get there.

Public libraries have long been a trusted community-based institution with a history that combines a mission of enabling learning, discovery, and creativity with the values of ensuring open, accessible, and equitable opportunities to participate in civic life. It is more important than ever for libraries to help residents become more digitally literate, access the full spectrum of civic engagement and participation, and use technology and data to make better informed decisions and solve problems for the public good.



DATA TRUSTS

[Anouk Ruhaak](#)

Ask Citopians the one thing they would change about their beloved (though fictional) city, and you'll get one answer: the endless delays and choking pollution caused by the city's heavily congested roads. To address the issue, city officials unveiled an audacious technical solution: customized routes for each vehicle and destination, based on real-time, synchronised traffic data. The scheme promised to cut congestion by a third; all it required was live tracking of each driver's location data.

The plans were met with weariness. A litany of data abuses meant citizens were sceptical of officials' ability to use the data responsibly. How could they be sure it wouldn't just end up being used to optimize road-side advertising, or even more sinister forms of surveillance and control?

The people of Citopia's dilemma is typical of many we face in the age of data: how can we reap the shared societal benefits that massive aggregated data can unlock, without opening the door to the abuses that are possible with any large concentration of sensitive data?

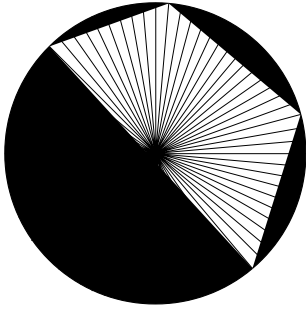
One effective solution would be a data trust: a piece of infrastructure that separates those collecting and using data from those holding custody over the data. Instead of sharing location data directly with the government, drivers in Citopia would send it to a data trust, an independent, trusted non-profit entity. The data custodian governing the trust has a fiduciary responsibility to safeguard citizen's individual privacy as well as that of the general public. Some of the core responsibilities of the data custodian are:

To decide what data can be collected

Some data should never be collected. The data custodian decides what data can be collected, and when. Ideally, before cities or companies decide to place certain sensors in our built environment, they must first consult with the data trust.

To decide what data can be shared

The data custodian decides what data can be shared under what circumstances. That decision is based primarily on the preferences and consent extended by the individual data subjects - in this case Citopia's drivers. However, as Citopia creates more uses for data-driven optimizations, the number of privacy choices its citizenry needs to make can quickly become mind-boggling. To avoid decision fatigue, citizens can decide to offload some of their decision-making to trusted third parties who can help them navigate the individual and societal consequences of them sharing data.



DATA TRUSTS

[Anouk Ruhaak](#)

To decide who can use the data

Companies, researchers, or policymakers wanting to make use of the data must request access from the custodian, making clear how they intend to use the data, and for how long. The custodian is obliged first and foremost to abide by the rules of consent for individual subjects mentioned above. It will also be necessary to have a system of auditing, to ensure data users are doing as they say they will.

Trusting the trust

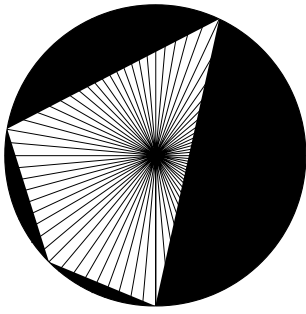
Now, how do we ensure data trusts do not devolve into just another unaccountable surveillance apparatus? How can we trust the trusts? Two simple measures can be built in to keep power vested in the users, and prevent against abusive behaviour.

Portable consent

If at some point in time citizens no longer trust the data trust, they can transfer data about them to another trust. The consent statements connected to the data will travel with it.

Certification of the trust

The data trust itself is certified by an independent body and subject to auditing. Should it lose its certification, it is no longer allowed to share any data in the data trust.



THE PROMISE OF FREE LOCAL WI-FI

[Jim Roche](#)

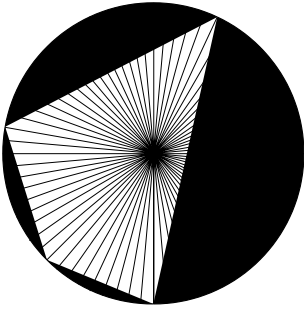
Imagine if you could wander around Toronto and access the Internet without having to worry about mobile data coverage or plans or cost. Imagine a low-income person not having to search out a “free” wi-fi service to check their basic entitlements. Imagine being able to connect to a local free wi-fi service without needing a password or worrying about cost. This is the promise of free local wi-fi.

Today access to the Internet is almost as important as roads and schools. Day-to-day Internet use has gone far beyond simple messaging and posting on social media. Internet access is required to access local and city information, city services and to answer simple questions like: can I park on the street overnight? If so, where and when can I get a permit? What time does the museum open? Where is the nearest coffee shop?

Some might argue that there is already free wi-fi available in, for example, hotels and coffee shops. The reality is that this type of wi-fi access is not, in fact, free. Paying guests of the hotel get wi-fi access. Paying customers in the coffee shop are giving access. This is not a free to all service.

People might voice concern about the abuse of any free service but all of these questions are easily resolved. Excessive usage through streaming or downloading to a specific device can be prevented by slowing down or blocking service. Overnight or periodic resets can be implemented to prevent users maintaining long sessions. Illegal activities can be tracked and traced in the same way as they could on any Internet service.

There are also arguments that public wi-fi is not secure and might be used to steal user’s data. While certainly there are some security concerns, there are also solutions. Security concerns may stop some people carrying out specific types of transactions over a public Internet service, but that’s fine. This service was never intended to replace private Internet access where the appropriate security mechanisms can be implemented.



THE PROMISE OF FREE LOCAL WI-FI

[Jim Roche](#)

Some Business Improvement Areas (BIAs) already offer free wi-fi service in their areas. An expansion to all of Toronto's 83 BIAs would give coverage to all the business areas across the city. Expansion into neighbourhoods would be an easy next step from there. All TTC subway stations provide wi-fi service within, and in some cases around, the subway stations. This could easily be expanded to cover a broader area. Similarly, libraries already provide a wi-fi service and again this service could be boosted to cover pavements and streets near the libraries. Considering the amount of Internet capacity that is delivered to homes and businesses and the limited use of this to a relatively short time each day, there is plenty of capacity for sharing some of that with a free wi-fi program.

Free wi-fi is not a dream. It is not a service that needs to be monetized. It need not depend on non-monetary activities like data collection. It can easily, and quickly, be provided now and rolled out across the city making Internet access available to all at no cost.

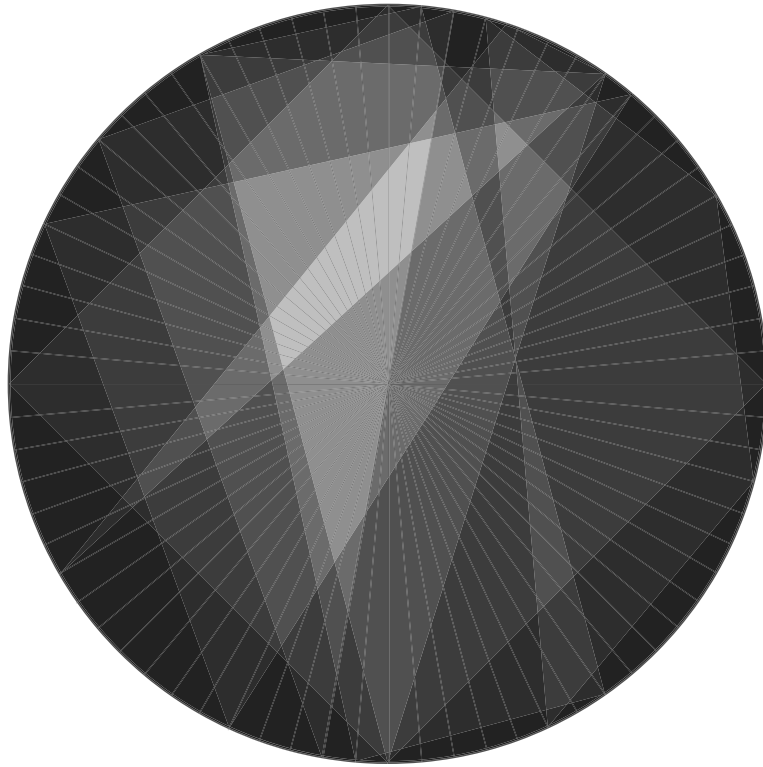
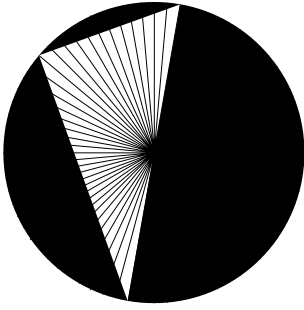


TABLE 8



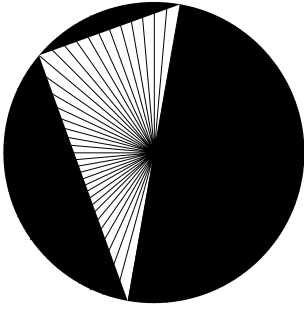
FOOD INDEPENDENCE IN THE CITY REQUIRES INDIGENOUS KNOWLEDGE SUPPORTED BY NEW TECHNOLOGY

[Ushnish Sengupta](#)

Food consumption patterns in cities such as the Greater Toronto Area (GTA) are unsustainable on many levels. We depend heavily on imported products from hundreds and thousands of kilometers away, with its associated environmental and social costs. Additionally, our food tastes do not sufficiently incorporate local Indigenous knowledge, but rather are based on knowledge of food and locally unsustainable consumption processes imported by settlers. Many of our societal health problems are related to consumption of unhealthy or inappropriate food. At the same time, Indigenous knowledge of food practices that will conserve food and land related resources, supported by technology development, are now available as solutions.

Developing sustainable food systems requires a range of different solutions. One part of the solution is to learn from local Indigenous knowledge keepers about which items can be grown in which conditions and what quantities can be consumed sustainably over the long term. Many of the foods we eat can be grown in ways appropriate to maintaining ecological and social balance, while providing sufficient food for consumption. The Indigenous community in Toronto, for example, the group Naadmaagit Ki (Helpers of the Earth), has been removing invasive species, planting Indigenous fruit bearing plants and trees along waterways and in public parks to ensure future generations benefit from this renewable resource, and to ensure Toronto is a more resilient city when there are disruptions to our current food supply system.

Another part of the solution is to utilize existing and emerging technology to conserve water, land and nutrient resources required to grow food. Technology is currently available to monitor growing conditions for plants and provide the right amount of water or nutrients, therefore conserving resources. Circular processes, such as combining aquaponic fish farms and greenhouses, where the waste from one process provides nutrients to the other, are in development by the St. James Town Community Co-op. Innovations include Rain Gardens being implemented by the Toronto Green Community to conserve water resources. Moreover, information technology solutions such as blockchain can be utilized to provide reliable information on the food supply chain, enabling customers at any point in the chain to be more knowledgeable and discretionary consumers of food. Consumers can be more reliably informed and decide if food purchases are local, organic, grown by organizations such as not-for-profits, worker owned cooperatives, rural or urban farms owned by women, and Indigenous communities, or combined requirements. Consumer choices supported by more reliable information will necessitate more sustainable and socially just food system practices.



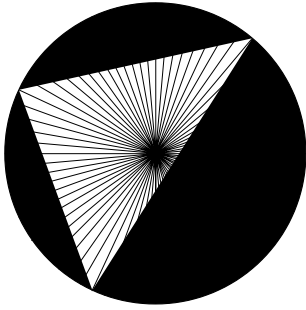
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Developing a sustainable food ecosystem in cities and regions such as the GTA therefore requires the application of Indigenous knowledge, conservation of resources, and application of new information technology developments. The options available to grow sustainable food need to include public spaces, community gardens and green walls as growing spaces. There are enough water and nutrient resources available if we conserve, reuse and recycle. And finally, there is an existentially necessary body of Indigenous knowledge of food and land that continues to be shared, by respecting the requirements of Indigenous knowledge keepers and following the appropriate protocols for use of Indigenous food and Indigenous knowledge.

I am grateful to the following local Toronto community-based food and water related organizations for sharing their knowledge over time, and they welcome your support:

1. [Naadmaagit Ki- Helpers of the Earth](#)
2. [St. James Town Community Co-op](#)
3. [Toronto Green Community](#)



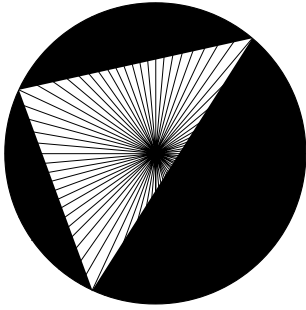
ARTIFICIAL INTELLIGENCE HAS A PROBLEM WITH GENDER AND RACIAL BIAS. HERE'S HOW TO SOLVE IT.

[Joy Buolamwini](#)

There's no shortage of headlines highlighting tales of failed machine learning systems that amplify, rather than rectify, sexist hiring practices, racist criminal justice procedures, predatory advertising, and the spread of false information. Though these research findings can be discouraging, at least we're paying attention now. This gives us the opportunity to highlight issues early and prevent pervasive damage down the line. Computer vision experts, the ACLU, and the Algorithmic Justice League, which I founded in 2016, have all uncovered racial bias in facial analysis and recognition technology. Given what we know now, as well as the history of racist police brutality, there needs to be a moratorium on using such technology in law enforcement—including in equipping drones or police body cameras with facial analysis or recognition software for lethal operations.

We can organize to protest this technology being used dangerously. When people's lives, livelihoods, and dignity are on the line, AI must be developed and deployed with care and oversight. This is why I launched the Safe Face Pledge to prevent the lethal use and mitigate abuse of facial analysis and recognition technology. Already three companies have agreed to sign the pledge.

As more people question how seemingly neutral technology has gone astray, it's becoming clear just how important it is to have broader representation in the design, development, deployment, and governance of AI. The underrepresentation of women and people of color in technology, and the under-sampling of these groups in the data that shapes AI, has led to the creation of technology that is optimized for a small portion of the world. Less than 2% of employees in technical roles at Facebook and Google are black. At eight large tech companies evaluated by Bloomberg, only around a fifth of the technical workforce at each are women. I found one government dataset of faces collected for testing that contained 75% men and 80% lighter-skinned individuals and less than 5% women of color—echoing the pale male data problem that excludes so much of society in the data that fuels AI.



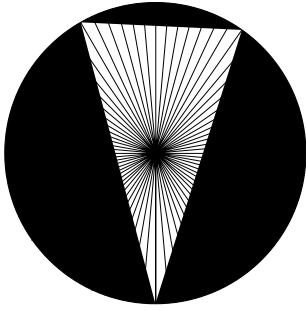
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Issues of bias in AI tend to most adversely affect the people who are rarely in positions to develop technology. Being a black woman, and an outsider in the field of AI, enables me to spot issues many of my peers overlooked. I am optimistic that there is still time to shift towards building ethical and inclusive AI systems that respect our human dignity and rights. By working to reduce the exclusion overhead and enabling marginalized communities to engage in the development and governance of AI, we can work toward creating systems that embrace full spectrum inclusion.

In addition to lawmakers, technologists, and researchers, this journey will require storytellers who embrace the search for truth through art and science. Storytelling has the power to shift perspectives, galvanize change, alter damaging patterns, and reaffirm to others that their experiences matter. That's why art can explore the emotional, societal, and historical connections of algorithmic bias in ways academic papers and statistics cannot. And as long as stories ground our aspirations, challenge harmful assumptions, and ignite change, I remain hopeful.

Excerpt from [Time Magazine](#).

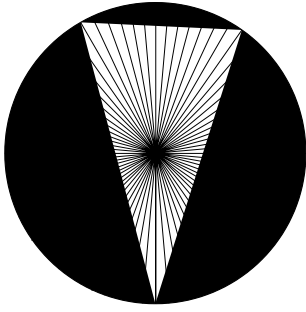


OPEN SMART CITIES AND SYSTEMS THINKING

[Tracey Lauriault](#)

What is common about networked urbanism¹ as seen in the Master Innovation and Development Plan for the Quayside Project², the promotional material of big vendors, the offers of smart city consultancies and the early smart city plans in Canada³; but is also seen in most of the submissions to the Infrastructure Canada Smart City Challenge⁴ and the Open Smart Cities Guide⁵ is systems based thinking. Regardless of whether they are technologically solutionist⁶ as is the case for the Quayside Project, vendors and consultancies, or whether there is more community engagement and openness, in the case of the Challenge or the Open Smart City Project. Systems thinking means interconnections between nodes and networks in a system, it means cross cutting components seen in large infrastructure such as the electrical grid⁷, transportation, but also the urban plan, social cohesion that includes justice, accessibility and equity, economics and innovation that means both business and social investment, as well as environment. Systems thinking requires conceptualizing in this case, that a smart city is a large social and technological system⁸, and solutions should consider system wide impacts and implications.

For example, the new Government of Canada Algorithmic Impact Assessment⁹ is useful when automating a social welfare intake system to some extent, but it will not be useful to assess whether or not the rules in the system are biased or not¹⁰, nor does it take into account the full data life cycle process of a predictive policing system where there may be an over representation of some groups of people in the datasets¹¹, and it may not address broader issues with the benefits and the pitfalls of those systems¹². Furthermore, policing may not even be included in the smart city plan although, if a safe city¹³ approach is offered, we can also expect that this approach will lean toward a surveillance city as seen with the Social Score in China¹⁴. In other words, only assessing the automated decision making in a city will miss these broader issues.



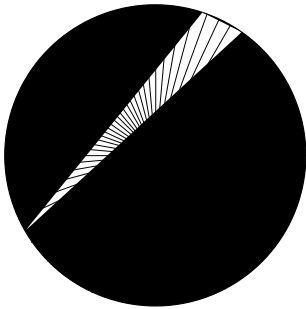
OPEN SMART CITIES AND SYSTEMS THINKING

[Tracey Lauriault](#)

Some systems in a city are already smart, for example the Paramedic Communication Centres¹⁵, or the Traffic Control Centres¹⁶ but they operate autonomously and are often not included in smart city visions or plans, and their good data governance practices are not referred to when it comes to designing systems city wide. Systems thinking would not only bring all of these together in an enterprise architecture, but policies, practices and norms would be codified and mapped across the institution. Systems thinking would not only be the purview of the Information Management/Information Technology (IM/IT) operations led by the Chief Technology Officer, but it would be part of the urban plan and vision.

In other words the 'smart' technology part is no longer just about operations it is about governance, governance of the data, the processes, the infrastructure, and the outcomes of processes and decisions, which means how smart technologies impact citizens, residents and visitors. Are these systems in the public interest and for the public good? And what are the benefits and the downfalls, not only of each individual part for specific institutions, but for all of those in a city when these things become interoperable and interconnected?

The [Open Smart City Guide](#) is about applying system thinking toward the creation of a city where residents, civil society, academics, and the private sector collaborate with public officials to mobilize data and technologies when warranted in an ethical, accountable and transparent way to govern the city as a fair, viable and liveable commons and balance economic development, social progress and environmental responsibility. That requires integrated social and technological system thinking and doing.



A PATH TO AFFORDABLE HOUSING IN THE PORT LANDS

[Gil Meslin](#)

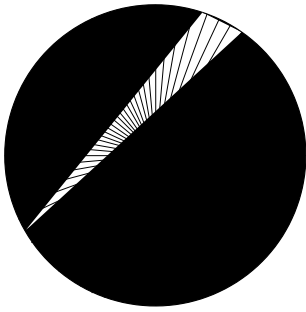
The Sidewalk Master Innovation and Development Plan (MIDP) correctly states that: “No issue is more pressing in Toronto right now than housing affordability”.

In order to support the Plan’s vision for housing affordability, Sidewalk Labs proposes a set of private funding sources that it projects to generate or unlock over \$1.4 Billion for below-market housing by 2048. These three sources include a 1% condo resale fee applicable within the Quayside and River District; a modular factory approach to construction that would accelerate timelines and reduce costs; and, ‘affordability by design’ - using efficient design to enable more total units, thus creating value that could flow to affordable housing.

Importantly, these three funding sources are also used as leverage to advance Sidewalk Labs’ arguments for an expanded scope that extends beyond Quayside into the Port Lands, encompassing the 62-hectare River District. Throughout the MIDP, there are frequent reminders that the scale of the River District is necessary for the MIDP’s innovations to maximize their impact and become financially viable. In fact, only one of the three private funding sources (the condo resale fee) is modeled as being viable at the scale of Quayside.

Even at the scale of the River District, however, what is achieved in terms of affordable housing is not enough. After the expansion of geographic scope from Quayside’s 5 hectares to the 77-hectare IDEA District. After the application of the three new private revenue sources. After the contribution of public land. After the use of other traditional public sources of funding for affordable housing. After all of this, only 20% of built units are planned to be affordable, at or below 100% of average market rent (AMR), and only one quarter of those - 5% of all residential units built - would be deeply affordable, at or below 60% of AMR. In total, based on these shares, the full build-out of Quayside and the River District would yield just 1,700 deeply affordable rental units. Not enough.

Consider that as of Q1 2019, the City of Toronto’s social housing waiting list stands at 102,049 households, and that it has grown by 7,977 households over just the past year. Consider that approximately one out of five Toronto households (2016) would not be able to carry a one-bedroom apartment at 60% of AMR within the CMHC threshold for affordability (spending less than 30% of gross income on shelter costs). Against this backdrop, yielding only 1,700 deeply affordable units from the build-out of Quayside and the River Districts is not progress - it is losing ground.



A PATH TO AFFORDABLE HOUSING IN THE PORT LANDS

[Gil Meslin](#)

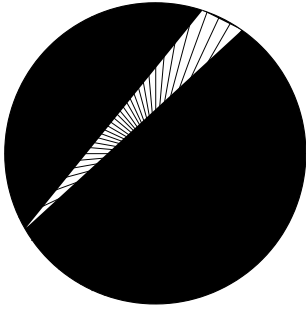
To be clear, this is not simply a criticism of the Sidewalk MIDP - it is also a criticism of the ambition of the Precinct Plans and Planning Frameworks with which the MIDP complies. The River District is unique, a large contiguous block of mostly public land close to the employment centre of the downtown core. There is no other block of public land like it. Its potential is also being unlocked by the investment of three levels of government in a \$1.25 billion flood protection project. If it is not possible to achieve more, in terms of housing affordability, in this context, how will progress be made on this issue?

What if, instead of relying on private sector innovation, we did it ourselves?

Speak with enough people about affordable housing, and you will hear reference to either the Vienna model or the St. Lawrence Neighbourhood. In Vienna, over 60 percent of residents live in social housing, and about 25% of the city's housing stock - 220,000 units - are owned and managed by the city, and intended for lower-income households. A similar number of units are built and owned by limited-profit developers, selected and regulated by the city, who direct future profits into cyclical refurbishment and the construction of more housing. The St. Lawrence Neighbourhood is a local success story - widely seen as a best practice in urban redevelopment, having resulted in a high density, socially-mixed community. The land (56 acres) was assembled by the City, and 16 different developers - as well as public housing authorities - participated in the development. Almost 60% of the units built in the St. Lawrence Neighbourhood were various forms of non-profit co-operatives or non-profit rental. The strong presence of non-market, non-profit housing anchors local affordability, providing units suitable for both low- and moderate-income households. Imagine the Port Lands built out as a 'little Vienna'. Imagine if, at long last, the City built another St. Lawrence Neighbourhood.

No, Toronto is not Vienna, and the landscape for co-op housing is not the same in 2019 as it was in the 1970s, but consider the endowments that the City already has, and some of the tools that are already at its disposal:

- The land is already publicly held - it does not need to be purchased or expropriated.
- The City has access to cheap debt for capital projects, and is able to borrow at rates near 3%, far below what any developer could access for construction financing.

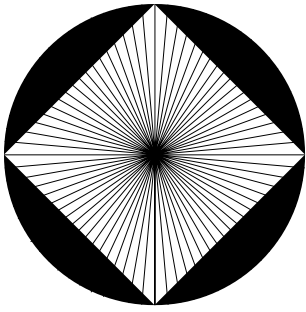


A PATH TO AFFORDABLE HOUSING IN THE PORT LANDS

[Gil Meslin](#)

- The City has no profit motive, and without the need for a developer's profit, would be able to build more units or offer higher levels of affordability.
- The condo resale fee proposed in the MIDP is essentially a form of land transfer tax, a tool that the City has already implemented, and that could be calibrated and applied to directly fund the build-out of affordable housing on the waterfront.
- By 2021, the City also expects to collect \$75 million annually from a City Building Fund levy. Imagine if the levy was increased, and the additional revenues directed to financing a continually growing supply of affordable units.
- There is an existing ecosystem of sophisticated non-profit affordable housing providers in Toronto; development of the Port Lands could be an opportunity to scale up this sector, and grow its capacity to deliver affordable housing options across Toronto.
- The location, along the waterfront near downtown, and future plans for green space and adjacent development such as East Harbour, means that there will be ample opportunities for cross-subsidizing affordable units with market development, and that the City would almost certainly benefit from significant land lift on any lands that it holds for the long term.

The point is that more so than innovations, on the matter of affordable housing, what this city requires is ambition and political will. Given the scale and immediacy of the affordable housing crisis, and the enormous potential of the unique public asset that is the Port Lands, the City must achieve far more from their development than what is being proposed. But it would require taking a different direction on this part of the waterfront - maximize public benefit from the public asset, and make the significant production of enduring affordable housing a central priority for development of the Port Lands.



URBAN INFORMATION ECOLOGIES

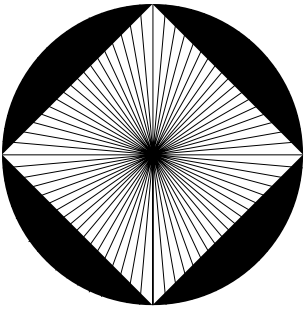
[Shannon Mattern](#)

The idea of the city as an information-processing machine has in recent years manifested as a cultural obsession with urban sites of data storage and transmission. Scholars, artists, and designers write books, conduct walking tours, and make maps of internet infrastructures. We take pleasure in pointing at nondescript buildings that hold thousands of whirring servers, at surveillance cameras, camouflaged antennae, and hovering drones. We declare: “the city’s computation happens here.”

Yet such work runs the risk of reifying and essentializing information, even depoliticizing it. When we treat data as a “given” (which is, in fact, the etymology of the word), we see it in the abstract, as an urban fixture like traffic or crowds. We need to shift our gaze and look at data in context, at the lifecycle of urban information, distributed within a varied ecology of urban sites and subjects who interact with it in multiple ways. We need to see data’s human, institutional, and technological creators, its curators, its preservers, its owners and brokers, its “users,” its hackers and critics. As Lewis Mumford understood, there is more than information processing going on here. Urban information is made, commodified, accessed, secreted, politicized, and operationalized.

But where? Can we point to the chips and drives, cables and warehouses — the specific urban architectures and infrastructures — where this expanded ecology of information management resides and operates? I’ve written about the challenges of reducing complicated technical and intellectual structures to their material, geographic manifestations, i.e., mapping “where the data live.” Yet such exercises can be useful in identifying points of entry to the larger system. It’s not only the infrastructural object that matters; it’s also the personnel and paperwork and protocols, the machines and management practices, the conduits and cultural variables that shape terrain within the larger ecology of urban information....

Just as important as the data stored and accessed on city servers, in archival boxes, on library shelves and museum walls are the forms of urban intelligence that cannot be easily contained, framed, and catalogued. We need to ask: What place-based “information” doesn’t fit on a shelf or in a database? What are the non-textual, un-recordable forms of cultural memory? These questions are especially relevant for marginalized populations, indigenous cultures, and developing nations....

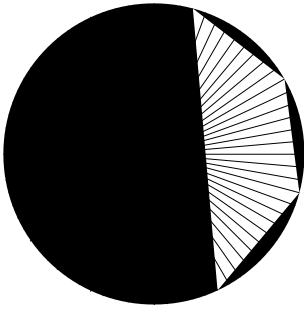


URBAN INFORMATION ECOLOGIES

[Shannon Mattern](#)

We must also consider data of the environmental, ambient, “immanent” kind. Malcolm McCullough has shown that our cities are full of fixed architectures, persistent terrains, and reliable environmental patterns that anchor all the unstructured data and image streams that float on top. What can we learn from the “nonsemantic information” inherent in shadows, wind, rust, in the signs of wear on a well-trodden staircase, the creaks of a battered bridge — all the indexical messages of our material environments? I’d argue that the intellectual value of this ambient, immanent information exceeds its function as stable ground for the city’s digital flux. Environmental data are just as much figure as they are ground. They remind us of necessary truths: that urban intelligence comes in multiple forms, that it is produced within environmental as well as cultural contexts, that it is reshaped over the *longue durée* by elemental exposure and urban development, that it can be lost or forgotten. These data remind us to think on a climatic scale, a geologic scale, as opposed to the scale of financial markets, transit patterns, and news cycles.

*Excerpted and adapted from [“The City Is Not a Computer”](#) *Places Journal* (February 2017).*



URGENCY FOR A BIKE FRIENDLY CITY

[Yvonne Bambrick](#)

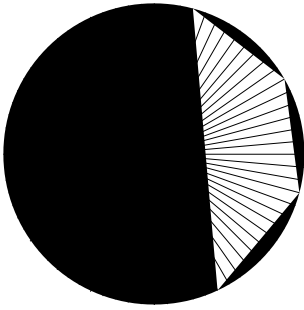
The days of painted bike lanes ending randomly and dumping a person on a bike back into hostile territory must end if we are to safely invite more Torontonians out of cars and off of an overburdened/underdeveloped transit system to relieve some of the congestion that is choking our city and frustrating those who must drive. We've had the solutions to make this a safer cycling city for years but have been unwilling to implement them in a timely or consistent way, or with the urgency this issue demands. The studies have been done, the data gathered, the analysis is complete – the myriad positive impacts are known, proven, celebrated even, and yet despite some important successes, and a clear demand for these solutions, Toronto continues to drag its heels as it shuffles incrementally towards the implementation of a city-wide cycling network, as part of their stated commitment to the Vision Zero concept.

Our city streets must be adapted to allow for the safe and efficient movement of people and goods, not just motor vehicles. I don't think any of my cycling advocate colleagues have any aim to turn Toronto into Copenhagen. Rather, we wish to see the best examples of infrastructure from other successful cycling-oriented cities used as the foundation on which to create made-in-Toronto context-sensitive solutions for the safe movement of people using all modes of active-transportation. We want our streets to move more people with less conflict within the same fixed roadway widths by reimagining and redesigning some of our streets to safely accommodate bicycles in a connected, protected, and reliable city-wide grid.

We've all heard the arguments in favour of creating a truly bike-friendly city, and yet here we are in 2019 once again making the case to shift into higher gear and get the bollards and paint on the pavement instead of endlessly debating each project proposed as part of our second, thus far unachieved, 10 year Bike Plan. The City has recently admitted to issues with achieving the longer term plan and has just set a shorter, 3 year plan in place.

I commend City staff and council for acknowledging the inadequacies of the previous 10 year plan and creating instead a new plan with a shorter, council session based implementation timeframe. However, budgetary considerations, and driver convenience, are still being prioritized over Torontonians' safety despite having adopted the Vision Zero Road Safety Plan.

New streets, and the design of streets scheduled for rebuild, must avoid recreating the roadway, curbside and intersection design mistakes of the past, but plan instead to safely incorporate personal bicycles and e-bikes, bike share, new shared micro-mobility devices, and people on foot through a complete streets model that also has tremendous benefits for people who drive and take



URGENCY FOR A BIKE FRIENDLY CITY

[Yvonne Bambrick](#)

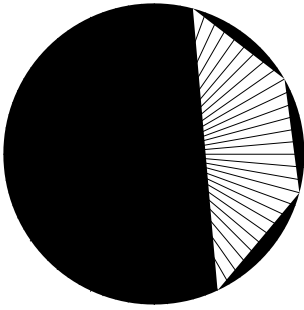
transit. Intersections are where conflicts between road users are most frequent and making them measurably safer through protected intersections, where road widths allow, is one of the keys, along with reducing distances between crossings, to eliminating catastrophic injury and death amongst vulnerable road users. Good design is critical to reducing the likelihood and consequences of human error, and Toronto has a critical need for good design.

We're barely managing the ever increasing volume of people cycling and using e-bikes as it is, so what happens when even more non-automobile personal mobility options hit the streets in greater numbers? Where do the hotly anticipated and contentious shared electric kick-scooters go, and the growing number of seniors on their power scooters, and skateboards, and electric one-wheeled contraptions that have started to pop up? Do all of these other micro-mobility devices belong on already crowded sidewalks?

The answer is a hard no. I imagine that the bike lanes and separated cycle-tracks of today will increasingly become the territory of not just those on bicycles but the space in which all non-pedestrian active forms of transportation will travel. And that doesn't even address the changing shape of goods delivery with smaller human-powered, and in some cases autonomous and/or electric vehicles... So where to go from here if we want to move more people more safely and keep our city streets from becoming ever more chaotic and unsafe?

A few things to prioritize and consider in planning and doing:

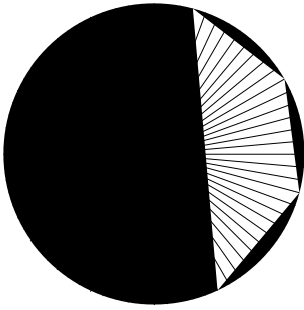
- Achieving and maintaining State of Good Repair (SOGR): Existing bicycle facilities should receive annual SOGR Spring audits and needed repairs. The City of Toronto's roadway user counts, and cycling app stats and route preferences, could also be used to determine which roads without cycling facilities have the highest volumes of bicycle use and then also work to guarantee that those curb lanes achieve SOGR to at least ensure a fraction of added safety if proper cycling facilities are not feasible.
- Year round access: Proper, reliable and timely winter maintenance and snow clearing is of course key to year-round use – other winter cities are showing it is possible, ex: Montreal, Oulu, etc. Waiting for the sun to come out and melt away ice/snow, or simply dumping carpets of salt onto our roadways (and waterways) is not good enough.



URGENCY FOR A BIKE FRIENDLY CITY

[Yvonne Bambrick](#)

- Encouraging social norms: We know the power of marketing, so how about activating a city-wide, image based (language barrier free), ongoing public education campaign regarding shared positive social norms about the rules of the road, mutual respect between modes, and the shared rights and responsibilities for all new and long-time Torontonians road users.
- Using existing resources: Consistent, ongoing enforcement of existing rules of the road by police is critical for reducing crashes/collisions/injuries/fatalities – speeding, dangerous/distracted driving, illegal parking, aggressive driving, red light running, will continue to proliferate if we don't start making enforcement a priority.
- Slow it down: speeding can be lethal, and a reduction of speed limits is part of a comprehensive approach to road safety.
- Intersections and small improvements: Large bike plan projects must be combined with smaller, more quickly deployable gap-filler projects. A city-core wide audit could be undertaken to identify where small interventions and installations, at intersections in particular, could improve safety where there are currently no cycling facilities (other than bike parking) and high volumes of people on bikes. Little improvements can have big impacts on safety.
- Tapping into local resources: Community members and advocacy groups can provide volunteer data collection support and help conduct local audits to share recommendations to staff for neighbourhood-based safety improvements.
- Re-evaluating on-street parking: Curb space is some of the most valuable real estate in the city and it's time to have a proper discussion about its use. Should it remain storage space, or is it time to reallocate more of it for the movement of people and goods?
- Shed some light on it: Non-intrusive (for nearby residents) intersection lighting enhancements could dramatically improve night time pedestrian and cycling safety by better highlighting non-motor vehicle roadway users at intersections.



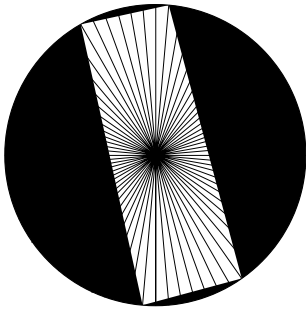
URGENCY FOR A BIKE FRIENDLY CITY

[Yvonne Bambrick](#)

- Preparing for the transportation revolution: E-bikes (pedelecs) and e-scooters are the new wave of urban mobility that is spreading rapidly across North America, the e-mobility revolution is underway – is Toronto ready? In addition to roadway space in which to safely operate, will there be charge stations for e-bikes alongside those for electric cars, etc.?
- Adapting for autonomous vehicles: Retro-reflective high contrast tape developed by 3M has been deployed on the 407 for autonomous vehicles to read. What plans do we have for adapting City of Toronto roadway and bike lane markings, and cycle track facilities, to help autonomous motor vehicles operate safely on our city streets and at intersections?

If the fundamental role of streets and roadways is as a safe and reliable network of travel lanes on which to move people and goods, we can no longer ignore the fact that continuing to operate our roadways as we always have, with the motor vehicle taking priority, will eventually lock us down in complete gridlock with all the noise, air pollution, and anger that comes with it. We're basically there now during peak hour.

As our population continues to increase, and age, one of the most cost-effective solutions to moving more people safely across the city's core and suburbs within the same fixed amount of space is to reconfigure some of our public roadway space and start prioritizing active forms of transportation via a safer, connected, city-wide network of active transportation lanes that keeps all road users safe, and reduces the chaos we've all grown so weary of. The question is, what kind of city do we want to live in?



CIVIC (AD)VENTURES

[Matthew Claudel](#)

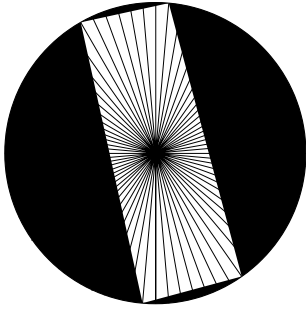
Entrepreneurship is understood as a binary: make money or have social impact. Entrepreneurs focus on arriving at a product or outcome, and – with their eyes on that prize – default to walking the path of a “startup” or “social innovation.” Legal, economic and cultural systems rut those paths with norms, organizational structures, design processes, clients, governance models, scale strategies, legal incorporation, funding sources and expectations of returns.

As they rut into trenches, these two paths are increasingly divergent in the contemporary economy. Recent ‘mea culpas’ of mega-CEOs are, at best, a genial wave from travelers on one path to travelers on the other. Especially in the trendy field of ‘urban innovation,’ this plays out as a tech-oriented hunt for unicorns, and a panicked scattershot of philanthropic grants to projects that chip away at city-scale social or environmental systems.

Neither is the right model of innovation for cities. Granted, there are some forms that float in-between, like cooperatives, hybrid legal structures, “zebras,” and benefit corporations. These are encouraging, but there should be many, many more. In fact, if “innovation” is “creating value,” and if civic value reflects a city and is collectively defined by its residents, then each city should have its own ways of creating value. Yet this other form of innovation (not a third, but a carrier bag of many, contextual others) – this civic innovation – is simply not recognized as legitimate.

There are exceptions. In small niches, civic innovation emerges through contextual:

- Ideation: creating value from a city’s specific assets or conditions
- Experimentation: discovering patterns of use, adapting the tech and local regulations
- Integration: becoming mutually dependent with social, political infrastructural systems



CIVIC (AD)VENTURES

[Matthew Claudel](#)

In other words, the creative process of “innovation” needs to treat all of a venture’s dimensions – from its network of stakeholders to its legal and organizational model, not just its products – as design opportunities. And cities are a remarkable territory to explore new venture forms, because they offer a spectrum of locally specific political, economic or cultural resources. Cities are unique sources of alternative “capital.” For example, civic innovation needs to be tested in urban space; the investment of political capital and social capital (regulatory exemption, local partnerships, and open engagement) is vital to success.

And if alternative capital is invested in a successful project, what are the “returns”? Civic innovation creates multiple, cross-sectoral value – value that doesn’t factor into scalable revenue models, or value that is hard to measure in annual impact reports for grants. Civic value includes things like – fostering a sense of opportunity and sense of self – and – generating surprise and delight – and – creating bonds for ecological systems in perpetuity – and – bringing together unexpected groups of people – and – knowing that my grandkids will get to see my favorite tree in the Boston Common.

Does that look like a startup? Probably not. Is it creating civic value? Absolutely.

If civic innovation is to create civic value (not exclusionary or extractive growth), we need to adapt the available support systems – most importantly, sources of capital (not VC, not philanthropic grants), and regulation (legitimate, open, publicly accountable zones for experimenting simultaneously with technology and regulation).

In sum, we should think of civic innovation less as startup or social ventures, and more as (ad)ventures: journeys that different players join at different moments, to genuinely explore unknown territory together, in search of civic value.

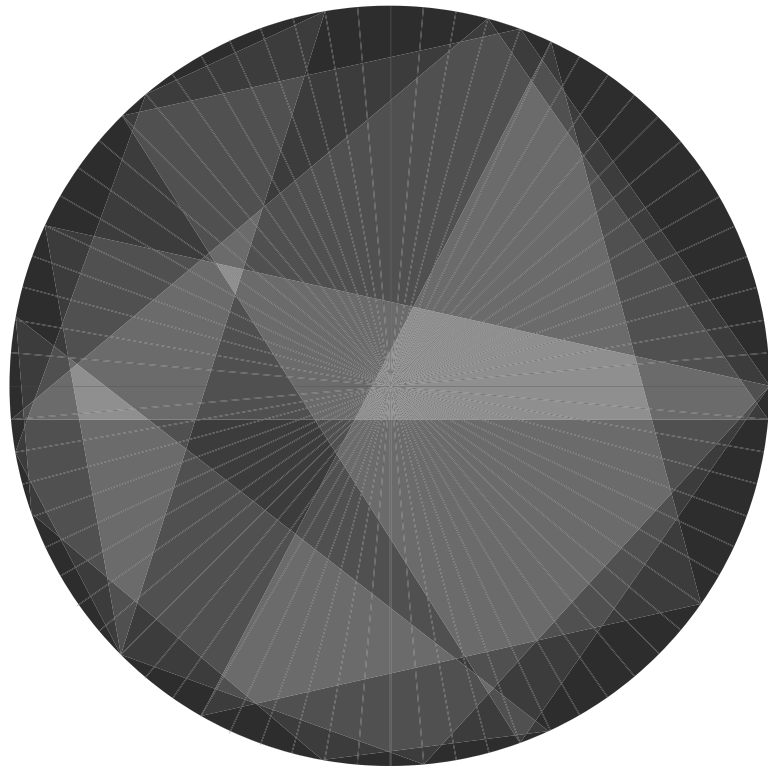
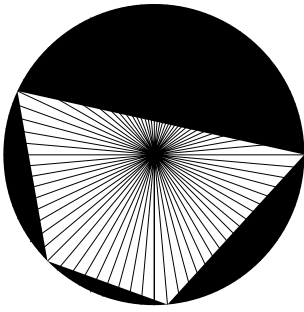


TABLE 9



KEEPING PROMISES: WHO REALLY GETS TO MAKE THEIR CANADIAN DREAM A REALITY?

[Saadia Muzaffar](#)

Toronto takes great pride in broadcasting its status of being one of the most diverse cities in the world, a big pillar in what helps Canada rank second in the world for largest per-capita immigration rates, meaning one out of every five Canadians is foreign-born. We've had this immigrant-fuelled-economy strategy as an essential driver for many decades now, a strategy which ensures Canada's immigration stream incentivizes highly-skilled workers in the fields of science, technology, engineering and math (aka STEM).

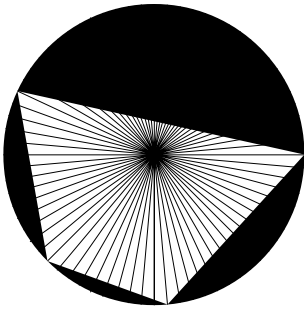
While Canada has been great at attracting this highly skilled talent pool, we have substantially failed at benefitting from their expertise because Canada has yet to do the work of treating its newcomers as more than just units of (cheap) labour. The glare through this lens is especially jarring when it comes to highly-skilled immigrant women skilled in STEM.

Consider that in 2011, more than one-half (51%) of all STEM degrees were held by immigrants, and among university graduates aged 25 to 34, immigrant women were twice as likely to have a STEM degree as Canadian-born women (23% versus 13%). If Canada's gender diversity in STEM, and especially women's subsequent labour participation in these sectors, has been steadily discouraging for the last 30 years, it is in large part because we have not focused on addressing the issues around integrating the skills of a staggering number of highly-skilled newcomer women into the specific workforces where they belong, many of them experts in jobs desperately required to address growing community needs across the country.

Here are three policy options that should be prioritized to fairly welcome immigrant women in STEM into our labour market - a focus that would have the benefit of positively impacting all workers in the long run:

Invest in child-care

The absence of a non-subsidy-based, comprehensive national child care and early education program in Canada is a hurdle that is particularly onerous for immigrant women. Newcomer women often don't have intergenerational support (example: having the option of relying on grandparents as regular or emergency care providers) that serves as a remedy for so many Canadian families in the absence of a comprehensive national program.



KEEPING PROMISES: WHO REALLY GETS TO MAKE THEIR CANADIAN DREAM A REALITY?

[Saadia Muzaffar](#)

Address the fragmented credentialing landscape

Skilled immigrants are required to get their education, work experience and professional credentials assessed if they received them outside of Canada. The process of accreditation is not standardized for most fields, resulting in a frustrating, exhausting, costly, unreliable and counter-productive landscape to manoeuvre for most immigrants, especially those belonging to racialized and visible-minority groups, compared to their non-visible-minority counterparts.

Even successfully wrangling results from this fragmented system of accreditation does little to address the catch-22 that most immigrants face while looking for work in Canada. Employers deny immigrants work because of a lack of “Canadian work experience”, pushing them into a self-fulfilling vicious cycle that often masks an insidious power dynamic keeping racialized and visible minorities marginalized, and therefore forced to work in substandard conditions.

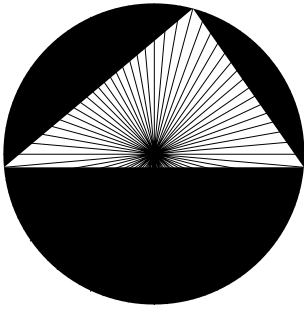
Equal pay

In 2016, the gender pay gap in STEM sectors (7.5%) was half of what it was two decades earlier. But precarious employment in STEM sectors is on the rise. The vast majority of those precariously employed are ones with non-permanent citizenship status, those waiting for their permanent residency to take effect, and particularly visible-minority women.

Women’s lower earning power doesn’t just mean there is a reduced incentive for them to stay and contribute to STEM sectors, it also means they are at a high risk of falling into poverty if they have children and then become separated, divorced or widowed.

For a country trying to steer the national GDP away from its dependence on natural resources and toward the innovations of the future, we cannot afford not to be doing more to integrate our highly-talented, highly-educated immigrant women into STEM sectors, and to keep our word when it comes to who really gets to make their Canadian dream a reality.

This is an excerpt from [Bait-and-Switch of the Canadian Dream - full piece.](#)



SAY YES. YES, AND... OR WHY CITY COUNCIL IS AFRAID OF ITS CONSTITUENTS CHOOSING THEIR OWN ADVENTURE

[Lanrick Bennett](#)

Could we build a city saying Yes, and...? I bet your first response would be no. What about the noise from basketballs bouncing at 10pm at night? What about the property value of my house going down because of the safe injection site around the corner? What about the frustration of driving in the city because we gave up a lane of traffic for cyclists? What about the children? If you were a councillor could you say yes to saying yes, and?

An exchange I had on Twitter this past week asked for us to #FreeThePatios and to not overthink regulations and zoning in regard to patios.

The City Councillor's response "Any patio? Anywhere? Any size? Any operating model? Any hours? Easy to say "Let's not overthink." Not easy in practice. Each of us has an idea about what the "right" answer is. Those answers differ. Circumstances differ. We need a way to sort opinion and circumstance."

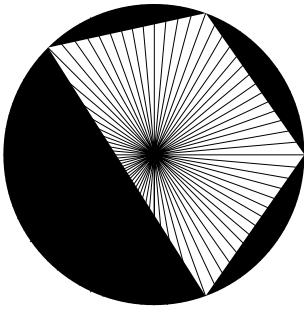
My response "Any patio? Yes, &... Anywhere? Yes, &... Any size? Yes, &... Any operating model? Yes, &... Any hours? Yes, &... In Toronto it is so hard for many of you to say Yes, and here's how we can try to implement X, Y & Z."

The rules and regulations that bind our city have been built on years, decades and a century of trial and error. Loads of errors, but we don't much enjoy having trials to think out concepts. And if we do have trials, they get studied, and then they go to committee, and then they go to be studied some more; even though we have examples from around the world, in nearby cities or literally in the wards and communities beside us of working on X, Y & Z. Then of course comes an election and if you're lucky/unlucky to keep your councillor, a new study will need to be brought forth because four years ago isn't now, and I need to cover my ass.

If you have ever gone to a Second City show or heard of the concept of improv, you'll understand that saying yes, and... to your partner or partners on stage allows for the scene or story to continue. Saying No ends the scene. Saying "Yes, but" is basically saying No. You invite ideas and collaboration. You invite the ability to listen when you embrace Yes, and...

Is my radical plan to course correct City Council, to follow in the footsteps of Viola Spolin and create improv based kids games to not only teach our local political leaders how to collaborate but to then have them create spaces for community engagement? "it's very important, when you are improvising in a group, making something out of nothing you can't start with no. And you can't just start with yes. You have to say yes and. You have to affirm and contribute in order to explore," Kelly Leonard

Yes, and... I have feeling it could work.



LET'S GET TOGETHER

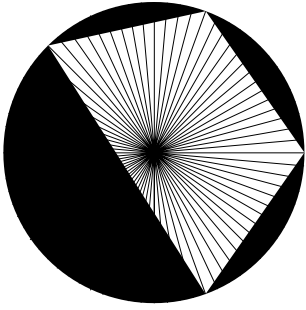
[Zahra Ebrahim](#)

The most powerful relationships in our lives are the ones that span the landscape of joy to pain, excitement to frustration, love to loss. It is in these relationships that we take risks - we learn and we grow. Trusting that the best relationships in our lives will lead us to somewhere spectacular, we give time and energy to unfamiliar things and embark, together, on these complex journeys.

So why, in our lives as citizens, do we accept the lack of dynamism in our governments' efforts to build relationships with us? It seems that we accept that in the case of government, "relationship" (at best) for the average resident comes through the form of being "consulted" or "engaged" in a way that is predictable and transactional?

Those with the privilege of being engaged and aware of what's happening in their neighbourhood are familiar with the critique of public consultation: it engages the same groups, who already hold power, at times and locations inaccessible to most. With these "engaged" folks, discussing the problematic nature of consultation has become as banal as a conversation about the weather. Even the word "consultation", and its companion comment "we don't consult, we engage" has become part of progressive rhetoric that increasingly holds less and less meaning.

Behavioral science and the success of applied design approaches to learning about civil society has shown us that instead of "meeting people where they are" as an end in itself, we have to show up to the proverbial "there" in a way that signals to people that the "engagement" is actually the beginning of complex relationship. What's more, it has to consciously and unconsciously signal the familiar elements of the best relationships in our lives, building on our lived experience of what this concept means and taking into account the differences in our intersectional identities. We know that the only thing we can predict about humans is that they will inevitably be irrational, and so we need to stop designing engagement in such rational, linear ways.

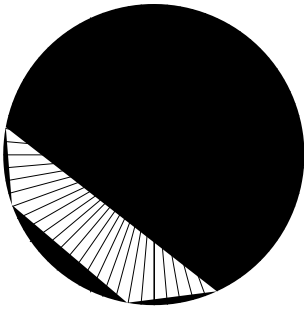


LET'S GET TOGETHER

[Zahra Ebrahim](#)

We've come to accept the orthodoxies that engaging with government is serious, effortful, time-consuming, and static. I suggest we explore what happens when we flip these orthodoxies - these pieces of unchallenged wisdom that are creating weaknesses in our relationships across civil society – and design for a world where engaging with government is delightful, flowing, right-sized for each of our lives, and dynamic. What if engaging with government was among the most delightful experiences in our lives? Instead of rebuilding consultation processes and widgets, let's flip the convention and build a relational experience, not a transactional one.

Designing for a deeper relationship and better connection with the public is a very different “brief” than designing consultation processes and project-based engagement. Real relationships build our social infrastructure, and leave us with an ongoing – and maybe even joyful – way to advance our civic dialogue, our cities and our democracy.



TEAMS OF TEAMS, RAILWAYS NOT SANDWICHES

[Dan Hill](#)

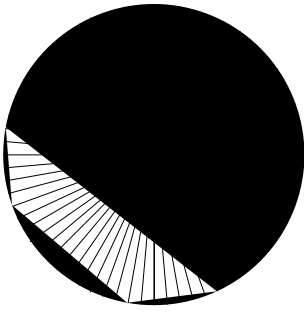
In 'Ill Fares the Land', Tony Judt essentially, if not quite literally, wrote, "Don't privatise railways, don't nationalise sandwiches".

With one fell swoop, Judt gave us a tool for sorting decisions about many things, including cities. Railways versus sandwiches questions the ownership of meaningful assets, values, and decisions. It suggests where the dynamics of the market are best deployed – the sandwiches end of things – and where the idea of public value, shared ownership and civic governance is just too important, valuable and, frankly, complex to be left to the simplified heuristics of the private sector.

Yet the last thirty years clearly saw a very different ideology locked in place, to hugely damaging effect. Deregulation, and the outsourcing of capability, intelligence and responsibility, meant the active loosening or dissolution of public governance in favour of market solutions, in railways, yes, but also housing, energy, mobility, and pretty much everything else.

In his essay 'Down to Earth', Bruno Latour directly links the deregulation that Judt was railing against to both "a dizzying extension of inequalities" and climate change denial, as three entwined phenomena, accelerating from the 1980s onwards until today's looming realisation that we have entered some kind of endgame.

Perhaps this sensation of an endgame is created not simply by the obvious and tangible effects of climate change and inequality around us, but also this broader point: that it's easier than ever to see that the private sector cannot do the public sector's job, particularly in cities, where things happen. Given the nature of the problems, and opportunities, we now face, as citizens in global cities, it is time to use every possibility to rebuild a sense of 'publicness,' to make the case for shared and civic values rather than private, individualistic ones, and so to better tackle these shared wicked problems.



TEAMS OF TEAMS, RAILWAYS NOT SANDWICHES

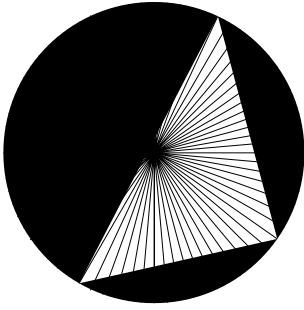
[Dan Hill](#)

Addressing Latour's troublesome trio, this means largely rejecting deregulation in order to fix the other two. More fundamentally, it means a re-constructed municipal government capability of the highest calibre, which designs and crafts regulation with societal outcomes in mind, informed by active, direct engagement with, and ownership of, the core infrastructures of everyday life. This means no more outsourcing of the railway end of things, in Judt's formulation. It means using every major urban opportunity to build up municipal capabilities in 21st century urban design and planning, in service design and design research, in data science and platform design, in total budgeting and system financing, and in participative, cooperative and shared governance – enabled by, and enabling in turn, a powerfully-engaged municipal government at its core. Easy!

This will not be easy, of course – but then as Donella Meadows said, “I don't think there are cheap tickets to systems change.” Fortunately, there are numerous precedents for this municipal innovation, building on the high-profile examples of Barcelona's exemplary BCN Digital City Plan or the UK's Government Digital Service, as well as consolidating and supercharging of the hundreds of ‘city labs’, ‘policy labs’, ‘urban innovation teams’ and equivalent that now exist in cities, from Malmö to Mexico City, from Boston's Office of New Urban Mechanics to NYC's Planning Labs to the UK's Public Practice. These, and the supporting of thousands of unknown ‘grey’ innovators, captured in Brian Eno's repositioning of the idea of the bureaucrat: that they “are stabilising knowledge, keeping things running, and sometimes innovating quite radically.”

Only by integrating these capabilities in new city services, dissolving 20th century silos, can we envision, finance and produce the kind of joined-up, legible and trustable outcomes that are beyond the business-as-usual contracting-out of city life found in most privatised smart city projects.

Find the full essay at medium.com/@cityofsound



TESTING THE WATERS TO NAVIGATE CHANGE

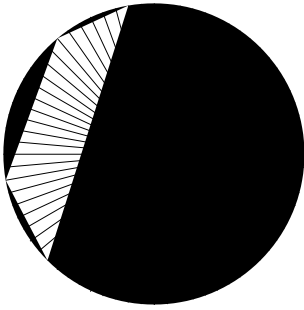
[Ken Greenberg](#)

Toronto is currently in the throes of a major paradigm shift, struggling to find more sustainable ways of organizing the city in the face of unprecedented growth, unparalleled diversity, a crisis of affordability, the necessity to wean ourselves from auto dependence and climate change. As we wrestle with the fundamental changes we need to make, we also need a tool kit of transitional steps, lighter more flexible ways of introducing change, using existing resources and spaces to try things out, test the waters and demonstrate the possible.

One of the key areas where this shift is occurring is in the public realm, the streets, parks, squares that form the 'commons' we share. [The Bentway](#) is pointing to a vast resource of underutilized public space hidden in plain sight. The [Laneway Project](#) is revealing the extraordinary untapped potential of 250 km of laneways as a valuable new network of public space. [The King Street Pilot](#) demonstrated how things would actually work in ways that no study could have accurately predicted as did similar trials on [Yonge Street](#) and [Queens Quay](#), or famously the transformation of [Broadway](#) in NYC. The [Public Space Incubator](#) is enabling ten such innovative tests throughout Toronto.

Like footprints in the snow that indicate where future paths should be, these probes and demonstrations are the 'scouts' exploring new territory, easing the transition to more fundamental changes. By adopting this open-ended evolutionary mindset, we are actually getting closer to how cities learn and adapt. To get past the logjams that immobilize us, we also need to apply this kind of exploratory design thinking to the creation of new neighbourhoods, buildings and public space.

With this ambition, Quayside by [Sidewalk Toronto](#) is just such a probe, a place to try out new ideas. A place where this real life testing will be most evident is the Parliament Slip and Plaza, a great new civic gathering space bringing people directly down to the water, naturalizing the shoreline and connecting with the proposed Silo Park and elementary school. Utilizing urban design strategies incorporating both high tech and low tech means to favour walking, cycling and transit, more space and time are liberated for public life. Most significantly there will be multiple ways in which Torontonians and visitors can manipulate their environment and try things out.



TAKE BACK CIVIC LIFE FROM THE COMMERCIAL PLATFORMS

[Micah Sifry](#)

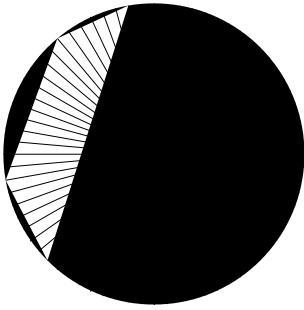
Last year, I spent two months quietly lurking on an online discussion board for the town of Middlesex, Vermont, population 1,731. A daily stream of posts written by people using their real names have floated by, at a pace of roughly five to fifteen a day. There were a few dozen posts about candidates for the local school board election, plus a smattering related to other civic functions like the annual town meeting, along with notices about kindergarten registration, upcoming offerings at the local library, historical society notices, transportation planning meetings, health forums and warnings about unsafe road conditions as rural dirt roads thaw out.

A post about the annual all-the-pie-you-can-eat fundraiser at a local church caught my eye, as did an elderly resident asking for help programming their car door opener and someone else needing assistance moving some large items to the town dump. Dozens of posts offered free goods ranging from firewood to beds, unused children's toys to Final Cut Pro editing manuals. Twice, people have reported their dog lost and then found within 24 hours; once, someone reported spotting a lost pair of miniature horses, also returned to their rightful owner within a day.

Of perhaps 250 posts, only two came anywhere close to mentioning national issues—one from someone sharing a news article critical of the power of oil companies, and one being the school board's statement on gun safety. Just once in two months did a post on the Middlesex forum lead to any rancor. That was when someone complained about dogs running loose on a rural road, and the town clerk, who happens to also be the owner of one of said dogs, replied, apologizing and offering a humorous defense of her old basset hound's tendency to act like a puppy at the first sign of spring. When concerned citizen #1 responded back, oddly calling the clerk condescending and self-righteous, a veritable potpourri of her neighbors chimed in defending her good intentions.

All across the state of Vermont, in every town, there is an online forum like this one, run by a local company called Front Porch Forum. Of the roughly 260,000 households in the state, 150,000 belong to a Front Porch Forum connected to where they live. A typical instance, like the Middlesex site where I lurked with the permission of the company's founder, Michael Wood-Lewis, has about 1000 households. People typically spend about 10 minutes a day engaged with the site. It's free to use, but to join you have to verify your home address.

Wood-Lewis has been building Front Porch Forum as an online hub since 2006. Until 2013, it was mainly centered in the neighborhoods of Burlington, the state's largest city, but after Hurricane Irene devastated the state, FPF won some state funding to expand. The storm demonstrated its value in



TAKE BACK CIVIC LIFE FROM THE COMMERCIAL PLATFORMS

[Micah Sifry](#)

fostering resilient neighborhoods and towns. The site has a full-time staff of close to a dozen, plus lots of part-time community moderators who keep online conversations civil by moderating all posts in advance. FPF is also deliberately designed to make it hard for provocative statements to turn explosive; there is no threading of comments, for example. Ads from public sector agencies, banks, hospitals and the like make up most of FPF's income, along with some local advertising.

In 2017, the Robert Wood Johnson Foundation funded an independent third-party survey of FPF users. Across the board, people reported that using FPF made them more likely to interact with other members of their community, more likely to trust and cooperate with their neighbors, and more likely to participate in civic life. The top reason people gave for visiting the site regularly was, as Wood-Lewis says, "witnessing daily small acts of neighborliness." He adds, "If you experience that, you will have this profound change. Your sense of community and social capital increases."

It's tempting in the current moment to describe Front Porch Forum as the opposite of Facebook, but it might be more useful to see it like an old-fashioned community bank in the age of ethically challenged mega-banks like Citibank and Wells Fargo. The same way we need banks to safely hold our money and help it circulate to create businesses and jobs, we need online digital forums to hold our social identities and help foster beneficial connections between friends, neighbors and the larger society. The question we face is for whom and on what terms will those forums be built and how should they be maintained. What a platform like Front Porch Forum lets us see is that there are many possible ways to answer that question, and the effects of online public forums do not have to be the ones we are now grappling with thanks to Facebook's focus on growth over every other value.

So I have a simple proposal for Toronto, or any other public government trying to figure out how to strengthen civic life in the digital age, when all the forces of capital seem to be driving us into isolated verticals defined by all the data we willingly and unconsciously share. Take back civic life from the commercial platforms. In the same way that our ancestors built public schools, public libraries, public roads and public parks open to all, creating rules for using those shared services that were fair and respectful of all, let's invest in building local forums like the ones thriving in Vermont. The Internet can indeed be a force for public good, but only if we design it to do so.

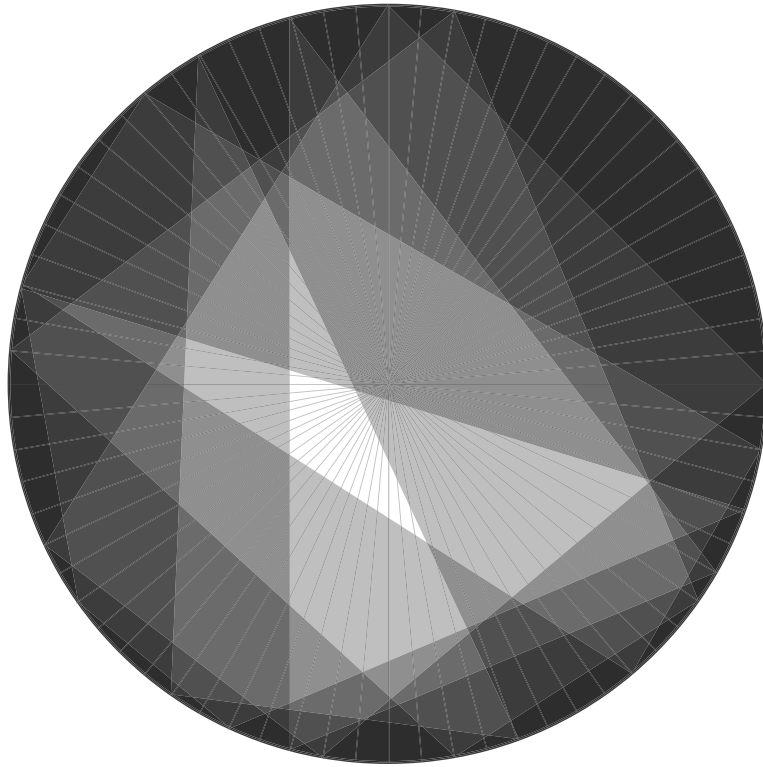
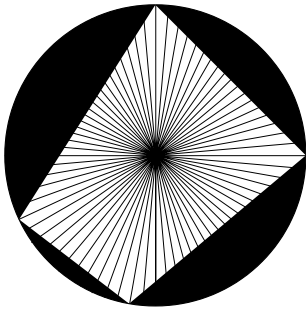


TABLE 10



CITY-BUILDERS ARE FAILING THE FUTURE OF TORONTO

[Yonis Hassan](#)

It all starts with space. Space to gather, innovate, grow and thrive. Space is a fundamental pillar to building civic engagement capacity and amplifying the voices of residents in the City of Toronto. People need spaces to organize and strengthen our democracy.

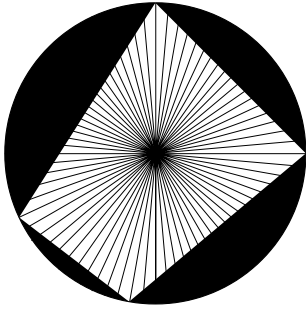
However, for a city like Toronto that is rapidly growing, we are severely lacking social innovation in city building. The conventional approaches of planning, design and governance of public spaces are not working to serve the residents of Toronto. With that said, the next few years will be critical to the future of Toronto.

Most city dwellers are familiar with the housing statistics—including 5 to 7-year waiting lists for social housing. Yet we are simultaneously failing to acknowledge other innovations and additional services we urgently need. Toronto's child poverty rate is higher than other cities in the Greater Toronto Area (GTA). Nearly 4 million Canadians are battling food insecurity, racial divisions and their consequences. Increasingly, Black, Indigenous and People of Colour are being socially and economically segregated in Toronto.

All this to say, it is deeply alarming to see numerous infrastructure projects dismissing these conditions in their proposals. The residents of Toronto should not be an afterthought and exploited for economic gain.

Toronto's Port Lands presents an unprecedented and remarkable opportunity for bold decision making – this project is an opportunity to first and foremost prioritize underserved residents of the city. This does not disregard technological innovations, building materials, infrastructure systems; it is simply enhancing the planning process to engage a wider community. City-builders often seem to be comfortable to have risk and uncertainty in technologies but not social services - housing, daycare, urban health.

Toronto's self-prescribed thought leaders, changemakers and influencers are not seeking difficult conversations, especially involving inclusive city-building decision making. Rather, they leverage deeply flawed systems in city-building to better serve their interests.



CITY-BUILDERS ARE FAILING THE FUTURE OF TORONTO

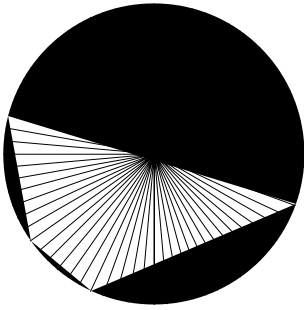
[Yonis Hassan](#)

All city dwellers should be mindful of the true changemakers working in grassroots organizations, those who educate and equip the residents of Toronto as active citizens in city building. These initiatives combat the recurring barrier in addressing colonialism, racism, ableism, patriarchy, homophobia and the increasing white supremacy movement. These organizations are often underpaid, underappreciated and burnt out. The precarity of this line of work directly results in developers, large institutions and influencers becoming the “go-to” talking heads and decision-makers for city building.

Yes, big cities need to take risks but said risks can not be at the expense of underserved and marginalized communities. The current top-down, “come to us consultations” approach is failing and city builders need to consult non-traditional spaces to meet people where they truly exist.

Social innovation in infrastructure must be the starting point for development, not an afterthought or something to supplement development proposals. We must start with an equity centred participatory approach in city-building for inclusive city-building and address the systemic exclusion of low-income residents in city-building processes by large institutions, developers and social-enterprises.

The future of Toronto will not be for the current residents of Toronto if city-building is not reflective of the diversity of lived experiences of its residents. No matter how great the challenge, no matter how many systems we must rebuild, the future of Toronto starts now, what role will you play?



BUILDING RESILIENT NETWORKS THAT SERVE LOCAL COMMUNITIES AND ECONOMIES

[Benedict Lau](#)

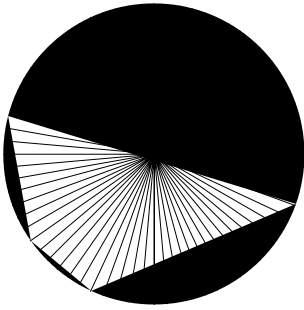
When we mention the web, most of us immediately think of the Internet, WiFi access, cell phone plans, our Internet Service Provider (ISP), and the popular services of today's Internet offered by a handful of Internet giants. It seems that our digital dependency on these private entities is our only possible digital future, even though every layer in that digital supply chain has prioritized private over public interest time and again. It seems there is no alternative future, or that any possible alternative “does not work as well” while being “offline” means we are missing out on the social interactions and daily conveniences enjoyed by others. What if we take a step back from our familiar web and ask what we actually need from and how we would like to relate to our technologies?

Technology is only useful if it serves us. So each time we reluctantly accept a technology decision made for us, we should ask whether we are in a position to change that. If not, why not? Is this still a relationship that serves us?

Let's take the example of connectivity, and consider an alternative approach to connect with one another through a “community network”. This is not only a way to implement telecommunication infrastructure different from the traditional ISP model, it represents an approach for humans to engage with and make collective decisions about technologies.

Community networks are networks collectively owned and managed by the community for non-profit and community purposes. They are constituted by collectives, indigenous communities or non-profit civil society organizations that exercise their right to communicate, under the principles of democratic participation of their members, equity, gender equality, diversity and plurality. The information on the network design and operation is open and accessible, allowing and favoring the extension of the network by the users. Community networks promote local services and content, promote net neutrality and free interconnection and transit agreements with networks offering reciprocity. –Cumbre Latinoamericana de Redes Comunitarias, Argentina 2018

Many sustainable community networks exist throughout the world, such as Guifi.net in Catalunya that supports individual participants and local businesses with its common infrastructure, Rhizomatica in Mexico that operates a cellular network and support related communities, and the recently established NYC Mesh that serves users in an urban city with large digital access disparities. Each community network is different in character, but a common feature is to provide a path that prioritizes local needs through collective ownership models.



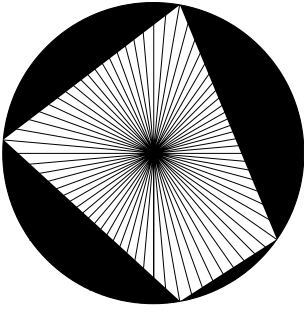
BUILDING RESILIENT NETWORKS THAT SERVE LOCAL COMMUNITIES AND ECONOMIES

[Benedict Lau](#)

We can evaluate a technology choice by whether it leads to retention of local economic outputs or extraction from local economic activities. Having multinational corporations intermediate our digital ecosystems will extract influence and agency from our local community in the long-term even though we may see short-term conveniences. Amazon, Facebook, and Uber are excellent examples. Local communities that come to depend on these privately-owned multinational corporations have lost local knowledge and infrastructures to operate alternatives, with technical talents lost to cities housing their headquarters that are themselves struggling with huge economic disparities. The result is our gradual loss of resilient communities to a small technocratic class of digital colonizers.

What is the intervention? We need to define new metrics from how we would like to relate to our technologies. For example, maybe “engagement” should not be measured by “daily active users”, but “contributing participants” who are engaged and empowered in deciding the roadmap of a technology. Designers should not only focus on “user experience”, but a “knowledge transfer experience”. Without knowledge to make informed decisions, and without power to build local alternatives, there is no democracy. Whether we are building a broadband network, a disaster response network, or a social network, we must stop the practice of inviting multinational corporations whose only stake in the project is of economic extraction. The most important component to equitable prosperity and resiliency to a local community is empowered people, and intermediation by private interests necessarily takes that from us!

Where do we start? Let’s start by building our local networks of creators who want an alternative digital future that prioritizes the local community. There is a false narrative that participation in building our digital futures requires specialized knowledge. In reality, community networks are built by neighbours, from children to elders, artists making zines and organizers hosting picnics. It is through these shared experiences among diverse folks that we find the appropriate technologies for our community and become stewards of our digital ecosystems.



COMMUNITIES NEED A SAY ON HOW THEIR DATA IS COLLECTED AND USED

[Amira Elghawaby](#)

While data is being heralded as the new oil, there are serious questions about who actually owns it. Particularly from communities that have every reason to fear the misuse or abuse of this increasingly valuable resource.

Consider that First Nations' communities decided they had to assert control over their data as far back as 1998. That's when the OCAP principles (Ownership, Control, Access and Possession) were established to govern how their data should be "collected, protected, used, or shared."

"We're not going to advise you on what you should be doing with your data. We're going to tell you what we're going to do with our data," said Gwen Philipps, a citizen of the Ktunaxa Nation in a 2017 paper released by Open North, in collaboration with the British Columbia First Nations Data Governance Initiative.

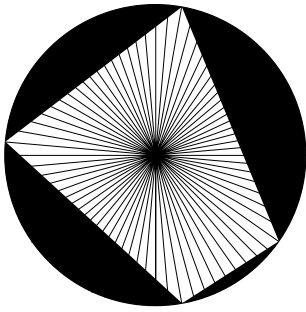
It was part of a project called Decolonizing Data, which invited input from First Nations' communities towards the creation of 10 key principles around data sovereignty to help inform discussions with the federal government.

As the editors of the 2016 book, *Indigenous Data Sovereignty: Toward an Agenda*, concluded, the "emergence of the global data revolution and associated new technologies can be a double-edged sword for indigenous peoples." If communities "lose control" over their data, write its editors, "discrimination will persist."

That's true for other communities, too.

Consider how some members of Toronto's Black community have called for the destruction of data collected through the practice known as carding, in which police randomly stop people, asking for identification. Analysis has frequently shown that Black people are disproportionately singled out. Some advocates don't want that information to be stored without their consent and potentially shared with other agencies.

Yet that very same data can become critical in highlighting the existence of racism and can become the basis for further investigation, censure and correction. For instance, Renu Mandhane, head of the Ontario Human Rights Commission, has pointed out that the Commission requires the data in its ongoing inquiry into racial profiling and discrimination at the Toronto Police Service.



COMMUNITIES NEED A SAY ON HOW THEIR DATA IS COLLECTED AND USED

[Amira Elghawaby](#)

That's because complaints from communities often don't get the same attention from government and public institutions as do hard facts. In Ottawa, a three-year study of police traffic stops revealed that a disproportionate number of traffic stops targeted Middle Eastern men and women, and Black men. "The data can help demonstrate the lived experiences of communities," Mandhane explained during a gathering of human rights and technology advocates in Toronto last spring.

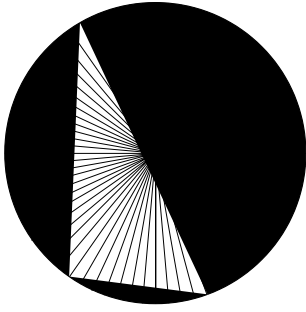
The problem is that aside from Indigenous communities, which have established the First Nations Information Governance Centre, many communities are barely catching up to the advantages and pitfalls of data-gathering. At the government level, analysis has primarily focused on the impacts of open data on individual privacy and security.

We need cities to provide space for these discussions. A workshop on the topic in Ottawa in the fall of 2018 attracted nearly 100 people, many of whom wanted to learn more about just how their communities' data was being used.

These are complex topics but they have become key in any human rights advocacy and in civic engagement and civic literacy.

Marginalized communities whose data have historically been missing, or ignored, should advocate for better information. That data could help substantiate claims of discrimination, or help strengthen policy decisions made about or for them. The problem is that we have yet to have robust conversations about just who will gather it, how, and to what end.

This article is adapted from a commentary piece in the [Ottawa Citizen](#) published on [March 11, 2019](#).



WE'VE BEEN HERE BEFORE - TECHNOLOGY IS NOT NECESSARILY THE SERVANT OF DEMOCRACY

[John Ralston Saul](#)

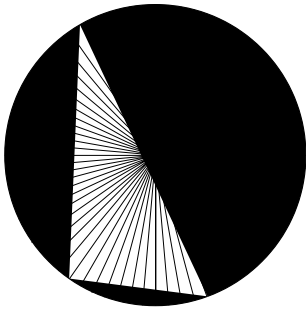
It isn't about whether history repeats itself. There are patterns. And you have to learn to recognize them in order to avoid making the same mistakes over and over again.

Technological invention, or innovation as people tend to say these days, is usually presented in the framework of progress. This sounds pretty harmless at first. Progress is usually presented as leading to increased human prosperity and wellbeing. Well, yes and no. The incredible mechanical breakthroughs of the early industrial revolution did eventually lead to great prosperity. However, between the late eighteenth century and the second half of the nineteenth century, the vast majority of the population affected by the industrial revolution saw their standards of living fall, and had to live through a century of instability and exploitation.

Industrialized slavery was driven by revolutions in machinery. The last round of automation has left many people dependent on unstable, underpaid service industry jobs.

So it isn't surprising that the incredible optimism of the first stage of the internet is now slipping into pessimism, as we see this new form of progress producing monopolies, feeding the worst forms of nationalism, aiding in the rebirth of racism, and undermining not only elections, but the very idea of citizen-based democracy. Of course, it can be argued that in some places, largely outside of the established democracies, this innovation has been a great help to the rise of individual power. But even then, there are two sides to the story. The Rohingya massacre was to a large extent fed and driven online.

It's worth thinking about all of that when we listen to the dulcet tones of Google, and the Sidewalk proposal. It doesn't follow that a neighborhood built to the specifications of a new technological monopoly will necessarily strengthen the city, or the power of the citizens of the city. Perhaps it could, but that is far from self-evident in anything said so far. There is a great deal of talk about modern communications enabling individuals to communicate in new and exciting ways. But that is not at all the same thing as the incredibly hard work of citizens at the grassroots building communities. There is nothing pretty about that process. It is not efficient. It's all about people learning both to live together and to produce policies which are not based on mere self-interest. In other words, the exact opposite of libertarianism. And Silicon Valley is driven by the libertarian culture - the precise opposite of democracy based on citizenship.



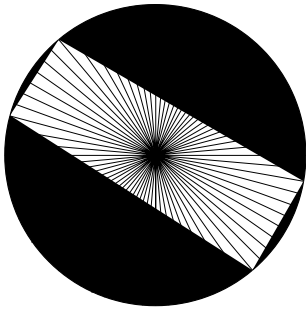
WE'VE BEEN HERE BEFORE - TECHNOLOGY IS NOT NECESSARILY THE SERVANT OF DEMOCRACY

[John Ralston Saul](#)

The Sidewalk project is presented as a theoretically modern, progressive idea. But people are already commenting on how similar it is to the old-fashioned anti-democratic model of the company town. The difference between democracy and a company town is that in a democracy, real power lies with the citizens through their personal engagement and their direct and indirect creation of public institutions and public services. In a company town the corporate owners keep getting in the way of the will of the citizenry. And they do have that terrifying power of being able to fire someone who speaks up against them. Or become an unpleasant landlord. There is another disturbing element. In the old-fashioned company town, you were the employee and the worker. In the Google model, you yourself are the product which will provide the company with profit. So yes, this is about a threat to privacy as one of the key elements of freedom of expression. It is first in private that we, as citizens, work out what we will say and do in public. But this commercial development is about a great deal more than potential risk to privacy and freedom of expression. It is about the most basic ideas of power, citizen responsibility, and society being built upon the legitimacy that emerges from the citizenry.

When you read about the planned confusion between the Sidewalk project/ Google as employer, landlord, controller of transport, and recipient of tax revenue, you begin to wonder just how far this project will take us from the most basic assumptions of Toronto as a democracy based on its citizens. And let's remember, this is the only large city in the world in which the majority of the population are born outside of the country. And it works. So we have invented astonishingly innovative ways to live together, which are all about progress - progress in human relationships - and not mere dependence on technology.

Our city is deeply flawed because of the power held by the provincial government, and a variety of other deep divisions in the city's structures. But we have worked very hard to make Toronto function in spite of these. At this point, our biggest risk is that this project weakens our democracy, and in the process weakens the growing citizenship-based model of diversity and inclusion. Certain kinds of technocrats and promoters want to limit conversations to technological ideas of progress. For myself, the most important focus is first and foremost on who we are and how we can live together as citizens in this complex city.



THE IMPORTANCE OF PERIPHERAL VISION

[Jutta Treviranus](#)

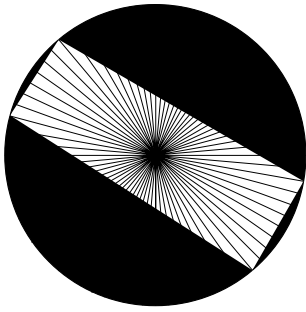
We have a human propensity when planning to focus on the centre of a field, on the majority; especially when we believe resources to be scarce. We think we need to select “the best,” the winning solution, the highest impact, the biggest priority. We think innovation and quality arise from winner-takes-all competition. Our metrics and evidence are about finding the biggest number, or the average. This usually means we ignore or lose sight of the periphery, the minorities, and the people that find themselves at the margins.

This blinkered vision denies our human differences and the associated, entangled complexity of a city. It ignores weak signals and inevitable change. We assume doing anything else would be less efficient, too costly or complicated. If we do address the needs of people that are not served by planning for the majority, it is often as an after-thought and segregated from the default; as a social responsibility or out of charity.

There is ample evidence and compelling rationale that says we have it backwards, that if we want better planning, innovation and risk aversion, we should focus on the periphery and address the concerns at the margins first. If we want to stress test our plans, find real innovation, account for the full entangled and complex system that is our city, we need to design with the people and organizations who find our current cities difficult or impossible. They have the most compelling uses for innovation and are most vulnerable to the risks.

This will not compromise the experience for the majority. We will be compelled to recognize our diversity and create a more flexible and adaptive urban plan. This means we will be more prepared for inevitable change. It also means that the needs of the average or centre will be encompassed, and the majority will have more choices and room to change and evolve.

It doesn't mean we will “give in to” or “be hijacked” by extremes. In fact, designing with people who are diverse and not “like us” protects us from polarization and extremism.

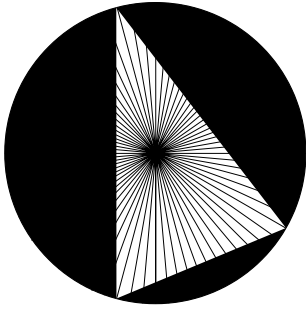


THE IMPORTANCE OF PERIPHERAL VISION

[Jutta Treviranus](#)

It will not cost more in the long run. Planning from the edge costs less. It helps to avert risks, prepare for the unexpected, and create a more responsive and adaptable system, that will have greater longevity. It takes an enormous number of average people to surface all the potential considerations and threats to a plan. It only takes a few people with lived experience of the margins of our communities. Counter to the 80/20 principle, the “difficult 20%” of our communities occupy the 80% of the unexplored knowledge terrain that the 80% who are average can’t know or fully imagine.

So, when we evaluate or collectively create a plan for a smart community we should start with the needs and realities of people that currently find themselves at the periphery, not part of the majority or any large number. We should do this without preconceived assumptions, hypotheses or notional frameworks. Start with real life stories and realities, rather than solutions looking for a justification. This will inevitably create a city where we can all thrive.



UNPROGRAMMABLE CITIES AND THE DEPARTMENT OF POSSIBILITIES

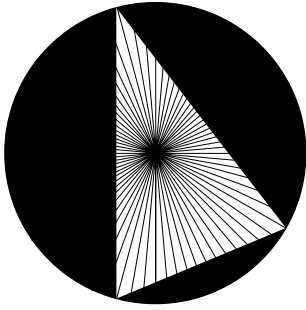
[Giulio Quaggiotto](#)

It has often been said that cities are the ultimate serendipity engines – and this is what makes them such magnetic innovation hotspots. Yet the prevailing “smart cities” paradigm conjures up the promise of a programmable city where nothing is left to chance. The perceived safety and precision of data driven forecasts and surveillance technology leave little room for unpredictability. And yet, the more we understand of the innovation process, the more we realise that it has little to do with linearity. Innovation is best understood as a probability game: the chances of a problem finding a solution, but also, importantly, the other way around. “Research funding is already a lottery: let’s make it explicit” proudly states the website of the Volkswagen Foundation (who have decided to assign research grants on a random basis arguing it leads to better results than through traditional selection processes). This logic is of course particularly difficult for planners to accept. Smart cities, in this sense, seem to be designed to reduce the options for innovation, rather than augmenting them.

Accepting the unpredictable nature of innovation also means acknowledging that it is a phenomenon interspersed throughout the urban fabric and that innovation potential is distributed across citizens. It is not the exclusive purview of universities or technology parks, of innovation districts, or islands for the happy few like the headquarters of the Silicon Valley giants.

Imagine, then:

- A municipal “department of possibilities” – just like the recently launched Ministry of Possibilities in the UAE or the City of Bologna’s Office of Civic Imagination. This would be a place dedicated to exploring options that are left open once the “unprogrammable city” paradigm is accepted: from spatial planning that can foster serendipitous encounters to rethinking municipal procurement so that it can unlock new possibilities (rather than reducing them), to a policy of attracting investments that can help unlock “adjacent possibles”.
- Collecting data not for massive profiling, performance dashboards or “sentiment analysis” but to identify emergent, citizen driven innovations and empower civic innovators to connect and build on their early stage solutions through dedicated platforms. Amsterdam’s Citizens Data Lab follows a 1:9:90 heuristics: it assumes that 1% of citizens have already identified the next generation of urban solutions and uses data analytics to identify them to harness their collective intelligence.



UNPROGRAMMABLE CITIES AND THE DEPARTMENT OF POSSIBILITIES

[Giulio Quaggiotto](#)

- “Innovation mirrors” scattered throughout the city to reflect back to individual neighbourhoods what is known about innovation emerging from that locality and engage citizens in discussions about strategies for fostering inclusive innovation. This could be paired up with the equivalent of the “innovation walks” of the National Innovation Foundation in India, where policymakers are encouraged to go out and document citizen hacks rather than asking for their needs.
- Innovation districts designed to reduce inequality rather than increase it (has often been the case) by unleashing the power of local imaginaries, like in the case of Camden AltDev.

Ultimately, embracing the serendipitous nature of innovation is a lesson in humility and a public acknowledgement of the vulnerability of even the best laid plans. Could this be one of the ways for city planners to regain the trust of their citizens?

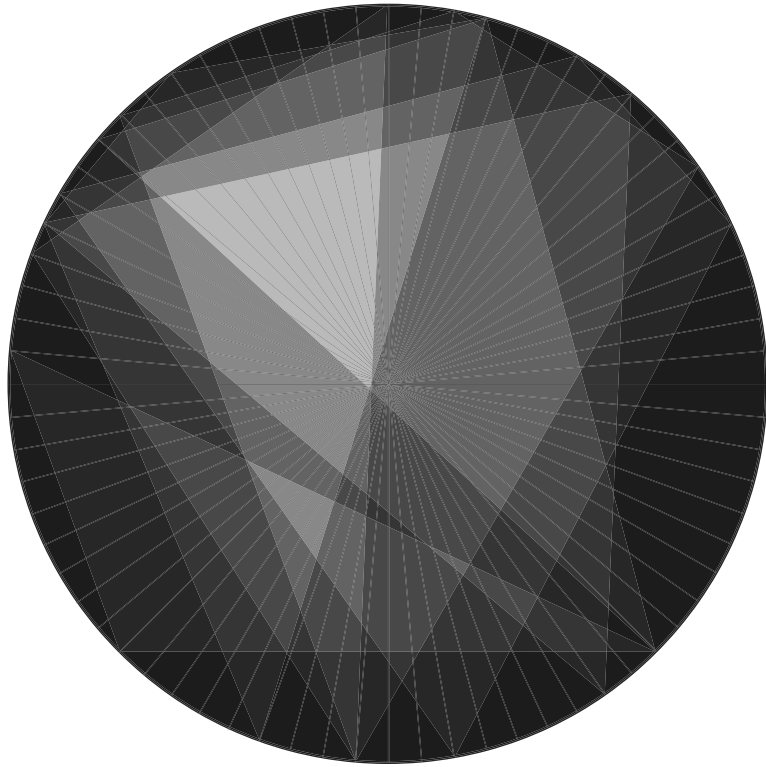
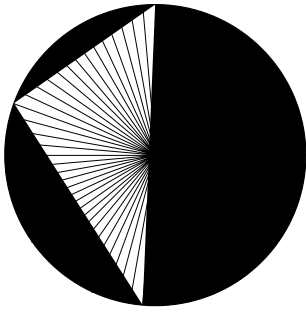


TABLE 11



URBANIZATION AND THE PUBLIC GOOD

[Darren Bates](#)

We are at a historic moment in urban development. According to the United Nations, more than half of the world's population now lives in urban areas. By 2050, that figure will rise to 6.5 billion people—two-thirds of all humanity, 15% with disabilities, making urbanization one of the 21st century's most transformative and challenging trends.

In many places, this trend towards rapid urbanization goes hand in hand with the creation of more disparities, inequalities, and discrimination, but urbanization can be a force for positive transformation. Urbanization processes wherein human rights are respected and promoted have the potential to transform this phenomenon from one in which people's rights are too often ignored or denied into a force that contributes positively to increasing equity and inclusion for all.

We need a paradigm shift in urban design for the 21st century.

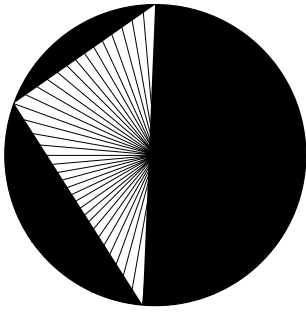
Urbanization, at its heart, is about human rights and how people access and exercise those rights. It is also about services and how people can equitably access and meaningfully participate and benefit from public services. When we think about urbanization, we need to think beyond populations moving into urban areas and consider how everyone can have equitable access to opportunity and a satisfactory standard of living. To meet the social and economic challenges fueled by the ever-increasing speed of global urbanization, we must design and refine cities for human diversity and social inclusion.

We cannot effectively challenge the snares of urbanization unless we address the needs, concerns, and priorities of historically marginalized and underserved communities.

We need a paradigm shift in urban design for the 21st century. If we continue to design cities as though everyone is 30 years old, active, and without disability, the result will continue to be cities that are biased, non-accessible, and non-inclusive. We cannot effectively challenge the snares of urbanization—or solve any of our biggest urban challenges (housing, health, water and sanitation, education, employment, recreation, political participation) unless we address the needs, concerns, and priorities of historically marginalized and underserved communities.

Design a city that works for a 90-year-old and 9-year-old, and you will design a city that works for everyone.

Moving forward, we must commit to creating cities that are inclusive and accessible for everyone—including older persons and people with disabilities.



URBANIZATION AND THE PUBLIC GOOD

Darren Bates

Design a city that works for a 90-year-old and 9-year-old, and you will design a city that works for everyone. We must intentionally design to leave no one behind.

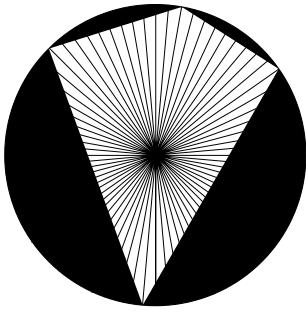
Unfortunately, accessible and inclusive cities do not build themselves. It takes a commitment to improving and people working together to make cities equitable, accessible, and inclusive for all. To help with this process, ask three simple questions continuously; by doing so, we can thread accessibility, equity, and inclusion into a given moment or a more extensive planning process.

- 1) Who is not included in the work we do?
- 2) What could contribute to this exclusion?
- 3) What can we do differently to ensure inclusion?

The most significant impacts come from collective efforts to understand the issues, map out strategies, and take action. Collaboration and citizen co-creation are vital. When cities listen to and work with citizens and communities (private industry, leading experts, civic tech, academics, artists, advocacy and disability groups), they can harness energy and resources necessary to build more equitable, accessible, and inclusive cities.

Urbanization can be a force for positive transformation if it respects, supports, and advances human rights.

Urbanization can be a force for positive transformation if it respects, supports, and advances human rights if we optimize the opportunities provided by urbanization, we can build a new blueprint for a more equitable, accessible, and inclusive world —where municipalities act on a central commitment to leave no person behind.



RADICALLY TRANSPARENT & ACCOUNTABLE DATA USE

[Sam Burton](#)

The “smart city” is often synonymous with ideas that require the collection and utilization of mass amounts of data about individuals and communities. Many of these ideas have sparked excitement and optimism, as well as a concern about privacy and the collection, ownership, and use of data.

However, these discussions often treat “data” like it’s all the same and assume that everyone knows what “data” means.

In October 2018, privacy expert Teresa Scassa recommended that discussions about Quayside should “start with a mapping out of the different types of data that will be collected, by whom, for what purposes, and in what form.”

I would like us to go one step further, and require that cities create and maintain a transparent, open, accessible, and living ‘map’ that clearly outlines who is collecting and accessing what data about residents and why, in a way that is easily understood by all residents, and provides clear avenues for people to ask questions and challenge practices they might disagree with. This would enable us as a society to:

Cultivate informed civic participation

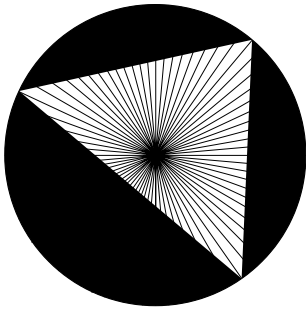
Building a stronger collective understanding of the wide variety of data and circumstances in which they might be collected would empower a broader group of residents to identify and advocate for what they’re comfortable with, what they believe adds value, and what acceptable trade-offs are.

Be precise

By ensuring we’re talking about the same things, we will have more robust public discussions and be better equipped to build fit-for-purpose data governance solutions. For example, there are significant differences between video footage taken by a CCTV camera in a public space, de-identified counts of the number of people entering and exiting a private building, and personal information on your hydro bill. By making sure that we aren’t lumping all these together, we can design governance solutions that help us avoid harm and put people first.

This kind of ‘map’ does not assume that data collection is bad. But it does assume that data collection and use is not neutral or homogeneous.

I want a more just and equitable society and I believe that, when used well, technology can be a tool to help us get there. Making this basic information more transparent and accessible, and requiring clear pathways for residents to seek redress and give consent, would put more power in the hands of citizens and better enable us to build the communities that we want, together.



SURVEILLANCE CAPITALISM AND THE CHALLENGE TO LAWMAKERS

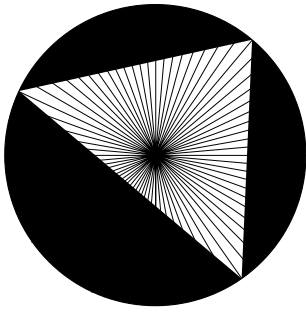
[Shoshana Zuboff](#)

Surveillance capitalism defines the 21st century economic frontier. It was invented at Google two decades ago, became the default model of the tech sector, and now migrates across the economy. Once we understand its unprecedented operations, it's clear that we need 21st century laws to interrupt and outlaw its equally unprecedented harms.

Briefly, surveillance capitalism unilaterally claims private experience as free raw material for translation into behavioral data. Most data are hunted, captured, and valued not for service improvement but rather for their rich predictive signals. These data flows lay the foundation for a lucrative new surveillance economy. First, data are extracted from private experience. Next, they are conveyed to computational factories called “machine intelligence” where they are fabricated into behavioral predictions. Finally, prediction products are sold to business customers in markets that trade exclusively in human futures where companies compete on the quality of predictions: they sell certainty.

The dynamics of these markets produce economic imperatives: Great predictions require data in volume and variety (economies of scale and scope). Surveillance capitalism drives toward a totality of information... from bodies to cars, homes to cities, bloodstreams to brain waves. The most predictive data come from intervening in the state of play to modify action in ways that serve the bottom line. Data scientists call this the shift from “monitoring” to “actuation,” where a critical mass of data can be used to impose programmed control. Surveillance capitalists operate through the medium of the digital layer to achieve these economies of action: automated systems designed to modify human behavior in the direction of preferred outcomes. The ability “to know” gives way to the power to control.

The imperatives set surveillance capitalism on a collision course with democracy. At the grassroots, they undermine human agency, usurping decision rights and compromising autonomy in ways that are incompatible with democracy. Surveillance capitalism simultaneously compromises democracy from above with extreme concentrations of knowledge and power. The social pattern reverts to the pre-modern --the few preside over the many in a new kind of computational tyranny.



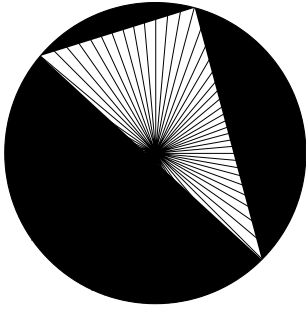
SURVEILLANCE CAPITALISM AND THE CHALLENGE TO LAWMAKERS

[Shoshana Zuboff](#)

Surveillance capitalism thrived in the absence of law. It's not that we've failed to reign in this rogue economics; we've not yet tried. But our societies have successfully confronted destructive forms of raw capitalism in the past. We once ended the Gilded Age, asserting new laws that tethered capitalism to the real needs of people and democracy. The next great regulatory vision is likely to be framed by lawmakers, citizens, and specialists allied in the knowledge that democracy must have the final say over the digital future.

1. Lawmakers should focus on the front and back ends of surveillance capitalism's operations: supply chains and sales. At the front end, we can outlaw the secret theft of private experience and thus interrupt the production and flow of behavioral data. At the back end, we can outlaw markets that trade in human futures, because we know that their competitive dynamics put surveillance capitalism on a collision course with democracy. We already outlaw markets that traffic in slavery or human organs. The competitive advantages of surveillance operations and the social inequality they produce are erased in the absence of the lucrative trade in human futures.
2. From the point of view of supply and demand, surveillance capitalism is a market failure. When "users" are informed of surveillance capitalism's backstage operations, research shows that they typically want protection and alternatives. We need laws that advantage companies determined to break with the surveillance paradigm. An alternative trajectory to the digital future requires alliances of new competitors who can summon and nourish an alternative commercial ecosystem. Competitors that align themselves with the actual needs of people and the norms of market democracy are likely to attract just about every person on earth as their customer.
3. Lawmakers should support new forms of collective action, just as a century ago workers won legal protections for their rights to organize, and bargain collectively. New forms of citizen solidarity are already emerging in municipalities that seek alternatives to the surveillance capitalist smart city future, in communities that want to resist the social costs of so-called "disruption," and among workers who seek fair wages and reasonable security in the precarious conditions of the "gig economy."

Surveillance capitalists are rich and powerful, but they are not invulnerable. They fear law and lawmakers. They fear citizens who insist on a different path forward. Both are now bound together in the big work of rescuing the digital future for democracy.



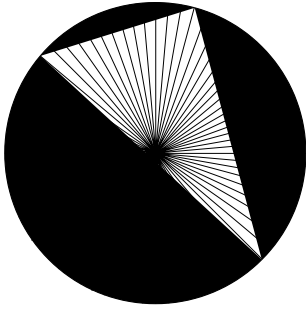
BILBAO TRANSFORMATIONAL NARRATIVES

[Gorka Espiau Idoiaga](#)

At the end of the 1970s, the city of Bilbao and the entire Basque Country was emerging from forty years of dictatorship in which any expression of local culture had been repressed. The area was experiencing an industrial collapse that generated high unemployment and an international image directly associated with terrorist violence. Despite these circumstances, Bilbao and the Basque society managed to transform its economy and industrial base. It now leads international rankings in advanced manufacturing, education and healthcare, and has also generated a balanced distribution of wealth.

The Basque case presents a unique case of systemic transformation under extreme circumstances. This experience involves the [“Bilbao Guggenheim Effect”](#), the [Mondragon Cooperative](#) and social economy ecosystem, Michael Porter’s [cluster strategy](#), the local advanced manufacturing and [technology alliances](#), a [basic income policy](#), the [recovery of the Basque language](#), and the [highest concentration of Michelin Guide](#) awarded restaurants per square meter, among many other interconnected initiatives. While the tax system is similar to the European average, the Basque Country has enjoyed [high income equality rates](#) for decades. This data allows us to think that it is possible to complement the necessary distribution of wealth through taxes with the generation of wealth in a distributed manner. A more egalitarian salary policy and strong solidarity mechanisms help to provide real and large scale “pre-distribution” of wealth.

Compared to similar post-industrial situations, the key factor of this transformation seems to be associated with the cultural dimension of a long-term strategy, rather than with than more visible hardware that can be identified in the above mentioned initiatives. The software, or cultural component of the innovation process, can be therefore interpreted as the set of values and beliefs shared by a particular community, city or territory and the way they are expressed in collective narratives and behaviors, ultimately conditioning strategic decisions and their implementation. A systemic approach to the great challenges that urban settings aim to tackle requires a strong connection between both, operating in a similar way to social movements instead of continuing to apply the traditional top-down project management approach.



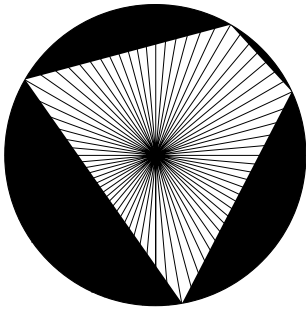
BILBAO TRANSFORMATIONAL NARRATIVES

[Gorka Espiau Idoiaga](#)

This story also suggests that those cities and territories who have been able to associate themselves with transformative values like equality, solidarity, self-responsibility, radical democracy, and resilience can become socially sustainable and more competitive.

Urban communities and 21st century citizens are demanding practical solutions to their growing, complex needs but if given the opportunity, joining a [“city transformation movement”](#) allows them to be part of a much more ambitious and mindful enterprise. These new transformational movements can only be co-created by generating a new narrative of transformation capable of connecting the identity of the territory with a “collective decision” to build a socially sustainable city that its residents are proud to be associated with, and proud to be living in.

Systemic change only comes about when the entire community feels empowered to act in a different manner. These narratives of collective change can be found in the Basque case, but also in other places that have undergone very positive urban transformations like Medellin, Montreal, or Seoul. Instead of looking for rare ‘talent’ in exceptional individuals, the most advanced forms of urban transformation set out to empower an entire community so that everyone can act in an innovative way.



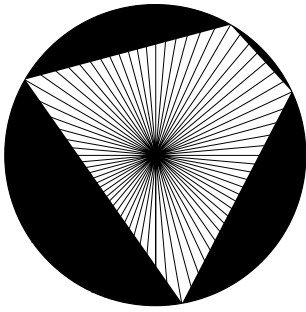
CLOSING THE DIGITAL DIVIDE & INCREASING DIGITAL INCLUSION

[Ryan Fukunaga](#)

The news headlines indicate the Greater Toronto Area (GTA) has the fastest growing number of technology-related jobs, and it is also a region with the largest increase in technology-job related incomes. At the same time, Toronto, like many other cities, is a city with increasing divisions. One of these divisions is the digital divide. As Toronto and other cities accelerate investments and allocation of resources towards becoming a “Smart City”, we need to ensure that resources are allocated in a way that the digital divide is closed rather than widened.

The first layer of the digital divide that needs to be addressed is access to computers. Students cannot do homework on phones, funding constrained libraries do not provide sufficient hours and computing resources, and a growing number of government services require computer access. Closing the digital divide requires each individual or household to have their own personal computing device, whether it's a desktop, laptop, or a tablet. There are a number of small organizations addressing the issue of computer access in the GTA, and this proposal describes the model for Free Geek, which has been replicated across different cities including Toronto.

One of the main focuses of the Free Geek model is to reuse unwanted technology to promote greater adoption and application of technology in communities that generally experience barriers to use. Reusing technology also reduces the waste that ends up in landfills and provides Right To Repair training opportunities for those who want to learn more about the opportunities of a Circular Economy. As the number of technology-related organizations and jobs grow in the GTA, there will be a high volume of used items available. These are valuable resources that should be directed towards reuse-first organizations addressing digital inclusion, rather than simply being passed through standard e-waste recycling.

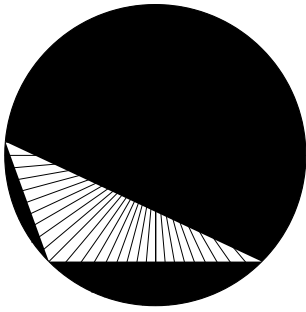


CLOSING THE DIGITAL DIVIDE & INCREASING DIGITAL INCLUSION

[Ryan Fukunaga](#)

Training is key to the success of this model, as the adoption of technology and finding suitable applications for communities is proportionate to adequate learning opportunities. Free Geek's model does not need to rely on established industry patterns of using/installing proprietary software as the standard. Refurbished technology is a prime candidate for using Free and Open Source Software (FOSS), such as a Linux/GNU operating system. Using FOSS further reduces the potential costs and helps extend the life of computers. Considering that there is a strong correlation between income and digital inequality, effort needs to be undertaken to ensure the lifetime cost of owning personal computers is as low as possible, and the individuals that own them are as self-sufficient in computer use as possible. Self-sufficiency includes reducing knowledge barriers around using FOSS for daily tasks, access to low cost replacement hardware and technical support services to troubleshoot issues that arise.

In summary, there is a need to replicate working models of organizations like Free Geek in closing the digital divide through the refurbishment of computers and reduction of e-waste, providing no and low cost personal computers to those in need, and providing Right To Repair training to interested individuals. All citizens, regardless of income, that have at least a minimum level of access to computers will be able to contribute to and benefit from a growing digital society.



WE MUST CUT CARBON OUT OF CONSTRUCTION – NOW

[Paul Dowsett](#)

We have only two months to transform the construction industry. There is no option - or planet - B.

The act of city building needs the literal city builders — the entire construction industry.

In response to the climate crisis, our roles as “city builders” must change. We must cut carbon out of construction – NOW !

Massive amounts of carbon dioxide are emitted into the atmosphere during the construction of a building (embodied carbon) and during the lifetime operation of a building (operational carbon). These massive carbon emissions must stop, we as an industry must change, and here’s why and how.

Why must we change?

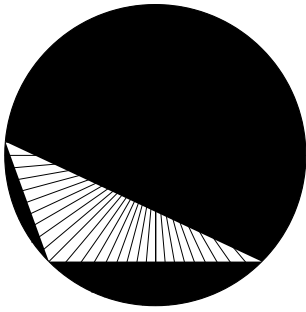
In 2017, the World Green Building Council (WorldGBC) stated that the global construction industry (emitting 30% of global greenhouse gases (GHG) — similar to China) must operate at “net zero carbon” by 2050 for global warming to remain under 2°C — as per the Paris Agreement. “Every building on the planet must be ‘net zero carbon’ by 2050” (emphasis mine). Every building ... whether new or existing. How can we transform both the operation of existing buildings, and the construction of new buildings, to emit no carbon?

How will we change existing buildings?

We can’t reduce the embodied carbon in existing buildings, as it has already been emitted during construction. But, we can retain the building’s existing structure “as-is” or transformed through adaptive reuse.

The alternative? Demolish that structure, send its component parts to landfill, and emit more carbon to construct a replacement building.

Additionally? Retrofit that building to be optimally energy-efficient — reducing its ongoing operational carbon.



WE MUST CUT CARBON OUT OF CONSTRUCTION – NOW

[Paul Dowsett](#)

Embodied carbon is becoming significant

Embodied carbon is significant, especially as we develop more and more energy-efficient buildings. In Lloyd Alter's blog post in Treehugger, he outlines that he dislikes the term "embodied carbon" — it hides the urgent need to address the carbon that is emitted through construction. Instead, he suggests we all use "upfront carbon emissions" (UCE) — because that's what they are."

Anthony Pak states that, "The importance of embodied carbon becomes even more evident when you consider that, according to the IPCC, to limit global warming to 1.5°C, *carbon emissions would need to peak next year in 2020* and then go to net zero globally by 2050. Given that embodied carbon will make up almost half of total new construction emissions between now and 2050, we cannot ignore embodied carbon if we want to have any chance of hitting our climate targets." (emphasis mine)

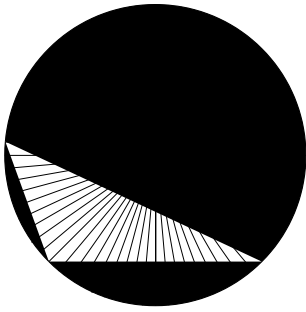
2020 is 2 months from now — to peak our global carbon emissions!
(17 months if we're being generous, giving ourselves to the end of 2020.)

We can no longer ignore that the manufacturing processes for concrete, steel, and asphalt — the assumed foundations of our construction industry — are huge emitters of carbon. Writing in The Guardian, Jonathan Watts calls concrete, "the most destructive material on earth".

What to use instead?

A forest — the "wood factory" — is a carbon-sink, drawing down carbon from the atmosphere, and moving our carbon emissions in the right direction. Project Drawdown cites a 2014 study: "Building with wood could reduce annual global emissions of carbon dioxide by 14 to 31 percent."

The construction industry can, and must, change. Getting designers and builders in the construction industry to convince the concrete, steel, and asphalt industries to give up their predominant position will be on par with getting the petroleum industry to give up theirs. They are all big, and powerful, and not terribly willing to change.



WE MUST CUT CARBON OUT OF CONSTRUCTION – NOW

[Paul Dowsett](#)

But there is hope!

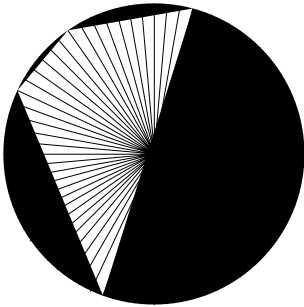
A promo piece by Skanska, the world's largest construction firm, encourages us to: “Think of a world where fantastic buildings ...are created ...giving [people] great places to live and work in, and where the CO2 impact during construction is ...well, there isn't one.”

Attention: city REbuilders!

Bringing buildings' embodied and operational carbon to zero is hard — and also necessary for our survival. We must embark on a program of city Rebuilding — now!

It is time for all of us to do something.

Medium writer Marta Brzosko says it best: “We are all on this sinking ship together — and we are afraid. That's only natural. But this is precisely why it's the time to find courage. The courage for acting and speaking about the climate crisis, no matter how uncomfortable it may be. Because, as Greta Thunberg says, our house is on fire. And to ignore the fact that your own house is burning is just ridiculous.”



HOW SHOULD ECONOMIC POLICY FOR THE DATA-DRIVEN ECONOMY BE FRAMED?

[Dan Ciuriak](#)

The shift of our economy and society online is taking place without referendum. What could go wrong? As it turns out, plenty. The data driven economy features powerful economies of scale, economies of scope, network externalities, and pervasive information asymmetries, each of which individually promises market failure; collectively, there is a perfect storm of factors pointing in that direction.

There is live streaming evidence of the reality of these theoretical concerns – rising corporate concentration, rising income disparities, and the presumptive unaccountability of the lords of tech as evidenced by behaviour such as Facebook CEO, Mark Zuckerberg, declining to accept the request of the British Parliament to appear before it. Dealing with the data-driven economy will require policy reforms across the board – policy should be technology neutral, so we need to go full horizontal. Some steps suggest themselves readily:

- Where Data/AI/ML is doing mechanical functions, ISO/private-sector/expert-led standards setting is called for.
- Where Data/AI/ML is doing human cognitive/decision functions, competence regulation would be appropriate.
- Where Data/AI/ML has societal impact (e.g., surveillance), we will need to develop tripartite consensus framework with effective democratic oversight over the executive arm of government.
- Where Data/AI/ML has military applications, cyber-security in defense of sovereignty will become essential, together with the development of international conventions on non-use and proliferation of autonomous armed robots (for example).
- Where Data/AI/ML has major distributional impacts, including on the allocation of work between humans and machines, we will need to update, and in some cases rewrite, the economic policy framework.
- Where Data/AI/ML intersect with trade and investment, new approaches to international rules will be required in areas such as competition, strategic trade and investment policy, and the role of FDI in knowledge-based and data-driven sectors

Excerpted from [Data and Digital Rights: More Questions Than Answers – But Enumerating the Questions is Essential](#)

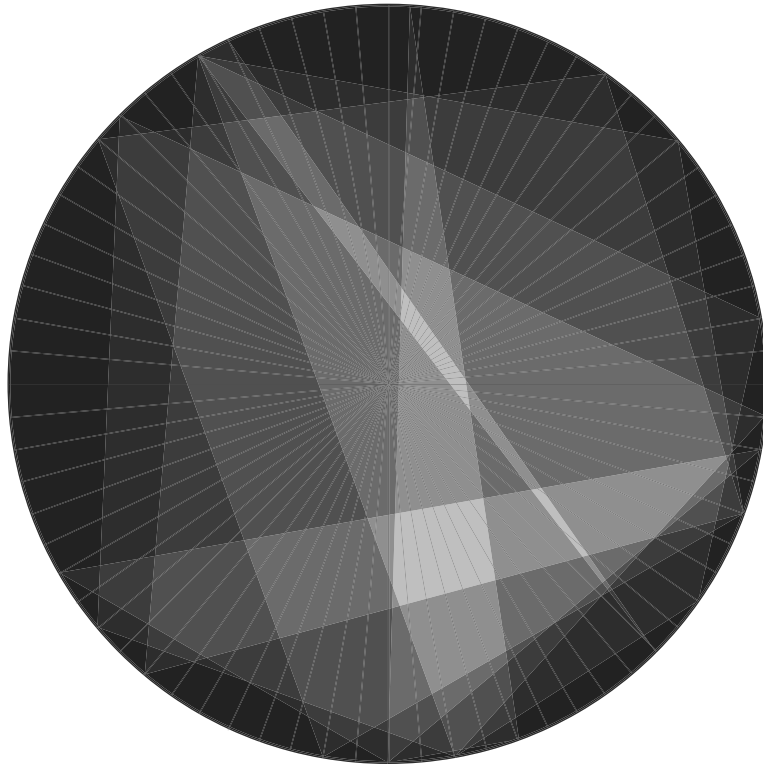
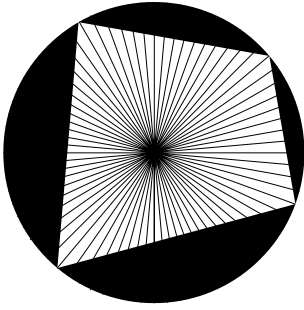


TABLE 12



SHARING SPACE

[Karen Carter](#)

I believe many cities benefit from public-private partnerships whenever they are done well. I think every city has many corporate leaders who love their homes and, if asked, would be open to finding ways to help make their cities better places.

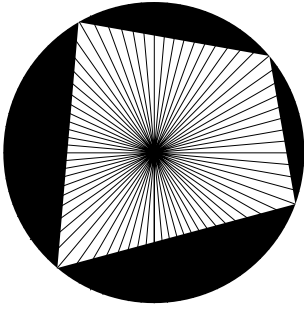
We have benefited from this type of corporate leadership at Black Artists' Networks in Dialogue (BAND). Regional leadership at Scotiabank helped BAND in 2014 when racism made it seem impossible for us to have a home for our organization.

I believe the model of corporate donation that helped BAND could be expanded on to create a loose network of creative takeovers with short, medium, and long term empty corporate spaces for arts and culture organizations and collectives, with a targeted effort to ensure that there is representation of racialized and other culturally specific people benefiting from term-based space use.

These empty corporate space donations would be coordinated through a collaboration between City Planning and the City's Economic Development and Culture divisions. We would have a lottery for arts and culture organizations and collectives, with a targeted effort to ensure that there is representation of racialized creatives and artists who are interested in having space to create experiential art and culture installations that would be showcased as a part of Nuit Blanche and/or the summer festival season annually.

This scheme would help more artists and creatives from diverse cultural communities get a taste of what we know at BAND. We know the power of place. The power of having a space to call your own. The power of not having to explain to the other what you're doing and why it is important or relevant. The power of having the ability to incubate and experiment with ideas that are only restricted by the resources you can amass.

I want to give more people from racialized communities relief from the burden of going through the process of constantly having someone who is not an ally question every detail of your creative vision. I really want more artists and creatives to not feel like they have to settle for something that is less than the vision they imagined. If they do need to settle or make changes, I want it to be truly about resources, not about someone who has the power to deny them access to the space they are using. I want them to not need to consider showing the work at all or changing it to what the other is imagining their creation to be.

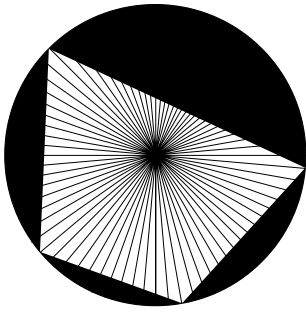


SHARING SPACE

[Karen Carter](#)

One of the things we now know at BAND is how smart Toronto's culture audiences are. The problem is not Toronto's audiences' interest in experiencing a diverse range of arts and cultural offerings, the problem is the creative gate keepers. The curators and directors with the Eurocentric sense of what "art" and "culture" is and what should be presented in Toronto. These projects would go around them and get right to the audiences.

The BAND leadership team could play a mentoring and operational support role and bring together culture leadership across the City to help mentor and support these projects and space management from concept to completion.



HOW CAN WE MAKE OUR JUSTICE SYSTEM MORE JUST?

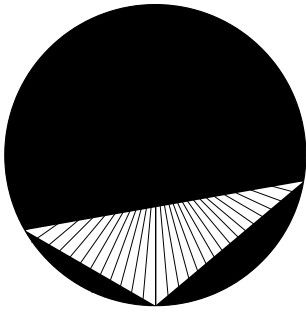
[Karen Pitre](#)

Imagine a justice system designed to address the needs of our most vulnerable populations. A justice system that recognises social issues such as poverty, mental health, disabilities and addiction, which could result in an intervention aimed at reducing recidivism and preventing incarceration.

In recent years there has been a growing commitment among the public, private, non-profit, and academic sectors to think differently about how justice and human services are organized and delivered. And yet no one has the mandate to “connect the dots”. Nobody knows who should be mandated to bring justice system participants, social services supports and those with lived experience together to find new ways of improving Canada’s justice system.

The criminal justice system works in silos. It deals with criminal behaviour but doesn’t address the root causes of that behaviour, such as homelessness, poverty, mental health and addiction. What is lacking is a holistic approach.

Despite decades of research and attempts to change how justice is administered, the justice system has been unable on its own to address those root causes. It is a complex, multi-sector problem and no one player can shift the outcome. We know there are local innovators involved at the community level that are making a difference but the system isn’t changing. This is the question – why not?



MICRO FASHION BREWERIES

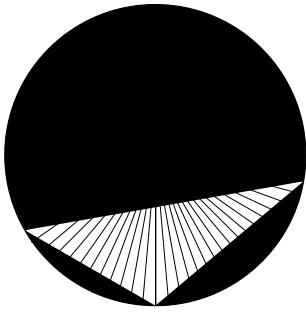
[Juan Carlos Goilo](#)

Cities are in their nature the shambolic labs in which new concepts and trends of clothing styles emerge. Amsterdam is no different. For decades the city withstood fierce competition from other fashion capitals like Antwerp, Paris, London, Copenhagen and Berlin with its unique expressions in streetwear. The city houses globally known fast fashion chains such as G-Star and Scotch & Soda. Local designers like Patta, ETO, Filling Pieces, Olaf Hussein, and Daily Paper are known worldwide. The up and coming urban creatives of The New Originals enable an adolescent generation to reinvent the city's streetwear identity. The way people adapt to the various rhythms of the city, its ever-present diversity and unpredictability of styles, form a great basis for experimentation in garments.

However, like many other cities, Amsterdam is threatened by urban sprawl in the center and is losing touch with the production process of clothing. Other than food and household utensils, clothing does not have an evident consumption cap. Overconsumption of fast fashion is easy, while the more pressing challenges related to human rights in the production processes remain opaque. That is why the city is aiming for change.

Amsterdam acknowledges the city's potential as a catalyzer for a circular clothing industry. The Dutch Circular Textile Valley named Amsterdam the Circular Brands & Business hub of the Netherlands. Not only does the city want to avoid overconsumption, it will encourage high-quality recycling and focus on long-term use of products. Amsterdam is expanding local craft centers for the repair and reuse of products as well as encouraging modular product design principles. The city is allowing a shift to take place in the manufacturing process of textiles. Also the biofabrication of textiles already taking place in Waag Society's TextileLab present a fundamentally new approach to the production of wearable materials.

The right balance between a strong ecological awareness, an ambitious designer community and performative city inhabitants will allow for these micro brewery-like fashion spaces to become the new normal. The creative sustainable fashion undercurrent has been active in Amsterdam for a while already. Clothing reuse hotspots such as IJHallen, Waterlooplein, Episode, WeAreVintage, Kiloshop and Zipper attract people from all over the world. Monday morning the Westerstraat and Noordermarkt transform into clothing and textile markets.



MICRO FASHION BREWERIES

[Juan Carlos Goilo](#)

The number of sustainable fashionistas are growing at a rapid pace. Bottom-up sustainable fashion platforms, such as Lena, LOOP.ALIFE and Stoere vrouwen are up and coming. At the same time, identity politics is becoming a citywide phenomenon; Hijabi, LGBTQI, black arts individuals and collectives are expressing their own life styles and fashion traits. Ruba Zai, StylesScrapebook, Hashtag By Lily, Conscious explorer, Firma Nozum, BrokeAssMillionaires and Awakati are just a few shades of this hyper diverse online pastiche. The more experimental Betty Liu's Join_Collective_Clothes and Anouk Beckers's modular garments are giving a new stylistic swing to reused clothing. Grounding, connecting and facilitating all these initiatives in urban space and linking them to distributive logistic networks will guarantee their success within the future of sustainable fashion.

In other words, hacking a global industry is not impossible. We have seen this take place in other markets. The number of micro beer breweries in Amsterdam has almost increased tenfold in the last decade, counting 45 breweries in 2017. A traditional Heineken Lager is no longer the romanticized norm of the city, these alternative local brews are. With the aim of the clothing industry to become more localized and sustainable, the same development that took place with microbreweries could take place with the clothing industry in the coming years.



FOR AN INTELLIGENT, EXCELLENT CITY

[Baruch Gottlieb](#)

A truly future-oriented Toronto will build on its strengths and develop existing local expertise, schools and practices of advanced urban tech, which already understand how all the parts of a city must cooperate to sustainably produce maximum value and sustainable prosperity for citizens.

Cities have to provide necessary services, such as clean water, power, mobility, waste management and emergency services, efficiently and effectively 24/7. Toronto has been doing that for generations, providing the basis for one of the most exciting and dynamic cities in the world. With a long term commitment to quality, efficiency and efficacy, a city can build on generations of public sector experience to affordably provide reliably excellent conditions for its citizens. No grassroots citizen group has ever requested or demanded that a Smart City system be implemented in their city. Smart Cities are always presented to the public from the top down, as inevitable and necessary. But, insistent and self-assured as it is, this is only a marketing narrative.

There is an orthodoxy in town which confidently declares that the public sector is neither efficient nor innovative. Activists of the global financial sector target governments at all levels, through every available channel. They mobilize citizen opinion through extravagant marketing campaigns, and incentivise politicians to propagate their narrative of public administration “slowness” and “waste”. They press for the defunding of publicly administered institutions like hospitals, schools and transport until these fall into disrepair and neglect. Meanwhile they lobby to open up the same services to private “competition” from international players, the quality of public services declines, making the argument more convincing that the private sector can do it better. Smart Cities is just the latest packaging for this strategy to put municipalities at the mercy of the private sector. The principal objective is to deprecate democratic institutions and locally administered services and replace these with extractive profit-driven service economies beholden to the whims of global finance.

It has become almost counter-intuitive to claim that cities, or governments of any kind, can manage essential needs of citizens better than the private sector. But this is a narrative, not fact, as Mariana Mazzucato convincingly argues in “The Entrepreneurial State” that the public sector is the most innovative, taking risks on long term improvements and fundamental engineering, while the private sector wastefully piggybacks making short term gains on the visionary investments made by public institutions. Deep innovation takes the kind of long-term planning and investment that today’s private sector cannot justify with its imperative to regularly show profits for investors.



FOR AN INTELLIGENT, EXCELLENT CITY

[Baruch Gottlieb](#)

Uber, Airbnb, Deliveroo and the rest of the platform economy extracts value from deep innovations, and long-term investment in city affordances and culture that have been produced over decades of public spending. The city we've made is the real source of value. Global IT companies in the platform economy extract shareholder value from a strong base of civic institutions built through public investment. If platform resource sharing schemes, like shared bikes and rooms are needed to encounter shortfalls in mobility or accommodation options, they should be run by the municipality so that all the benefits, from fares to data acquisition, be recouped by the citizens, and data privacy issues maintained under democratic purview. While we're at it, let's have municipal broadband! Well-funded public services can provide excellent services to all citizens cheaper than the private sector, which, on the contrary, is motivated to provide excellent services only for those who can pay the most. A privately-run city will be a pay-as-you-go city. An absentee landlord city, a city for tourists and visitors but not for residents and citizens.

As has been seen repeatedly around the world, the most fundamental services such as health care or education are notoriously unprofitable. Once firmly in the hands of private actors, faced with low returns, essential services inevitably begin to be provided in tiers, with poor quality and extractive conditions for the majority and better quality for those who can pay. Invariably the privatisation plans need to be constrained or rolled back altogether, why go through the ordeal?

Instead of accepting a short-termist city of citizen value extraction, let us advocate for improving and investing in the expertise and knowhow that got us here. We want and deserve an excellent city, an intelligently run city, not a short-termist and extractive smart city. When we hear that the TTC cannot adapt to present needs because the workers are already overworked, the intelligent response is to hire more workers and to create better conditions for those workers, so that these experienced specialists can maximise and emancipate their expertise, and so that the next generation of city transport experts can be trained in an environment of innovative and careful, long-term improvement, specialized in local challenges and responsive to local needs. A new commitment to public services requires that citizens get more involved in how the city is run, but the result will be a more efficient, more intelligent, sustainably prosperous city which works for all of its citizens.

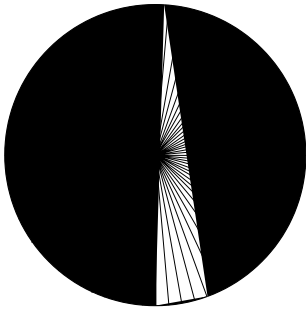
Companies can move on, cities can't

Companies get to make short term plans, cities can't

Companies win even when they fail, cities don't

Companies can hedge their bets and play clients against each other, cities can't

Companies can just disappear overnight, cities can't



THIS IS THE WORLD WE BUILT

[Ana Serrano](#)

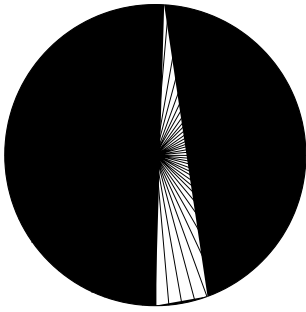
In Russell T Davies' 2019 BBC limited drama ensemble series called *Years and Years*, set in the near-future, a Manchester family grapples with a Britain powered by surveillance technologies and controlled by an authoritarian demagogue intent on keeping "Britain for the British." As the family's wealth erodes and freedom is curtailed, the matriarch played by the inimitable Anne Reid gives her last toast exclaiming that "Every single thing that's gone wrong – it's your fault." Her grandson asks, "God knows I get blamed for an awful lot but how am I responsible for the entire world?" She continues, "Because we are, every single one of us. We can sit here all day blaming other people. We blame the economy. We blame Europe. The opposition. The weather. And then we blame these vast sweeping tides of history, you know, like they're out of our control, like we're so helpless, and little and small. But it's still our fault... This is the world we built. Congratulations. Cheers all."

In that quiet moment in the last episode, the power of storytelling becomes clear. Anne Reid's toast is not just meant for her fictional family. It's meant for us -- the binge-watching, convenience-obsessed audiences whose present is unfurling at an alarming rate into a future not so unlike the bleak one painted in *Years and Years*. So what are we going to do about it?

For over 20 years I've been running the innovation arm of the Canadian Film Centre. From its inception, the CFC Media Lab was focussed on what future new entertainment and media experiences, products, services and tools would be created as a result of digital networked technology, and on accelerating the development and growth of this next generation of Canadian creators, artists and startup founders. As a part of Canada's innovation ecosystem, the CFC Media Lab is unique. Our focussed vertical – arts, culture, media and entertainment – allows us to inhabit a space where stories and technology live alongside each other, informing our understanding of the latter in ways that go beyond its typical utilitarian function. In building digital networked products, services and experiences, we know we are helping to build a world. And we know we need to ask questions typically unasked in traditional innovation spaces -- questions such as whose world, for what purpose, of what design, on whose authority...

A set of major theoretical touchstones thus informs the work we do and includes the following:

- Technology is not neutral
- Ideas, meaning, stories, user-driven problem/solution sets, emotional experience, and social impact drive technology



THIS IS THE WORLD WE BUILT

[Ana Serrano](#)

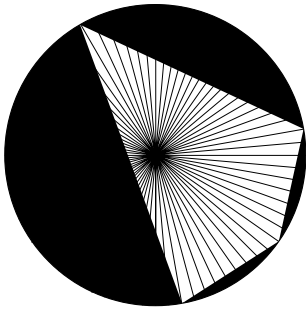
- Paradoxical program design is key: e.g, structured AND chaotic; rigorous AND soft; prescriptive AND emergent
- Collaboration rules
- Always move towards the edges

As we enter the next evolution of digital networked media and technologies, which will be the convergence of artificial intelligence , ubiquitous computing (e.g., smart city platforms), immersive media (from virtual reality to augmented reality) and cybersecurity (e.g., blockchain), we have to be even more vigilant about ensuring the challenges of previous computing platforms aren't amplified in this next phase. Today, we don't need to watch *Years and Years*, or *Black Mirror*, or read Tim Maughan's *Infinite Detail* to understand in our guts the socio-political and economic ramifications of unfettered Big Tech, Big Data, and runaway innovation for the sake of "exponential growth." Technology monopolies have too much power. Fake news is real. Algorithms are biased. Democracies are under threat. This is the world we built.

But the good news is that what we build can be re-built, re-set, re-designed, replaced. Over the next decade, we at the CFC Media Lab are interested in seeing how our unique position as storytellers and technology makers can help us catalyze a change in Canada's startup ecosystems. Can we create a community that cares as much about the ethical/moral and power structures underlying the "innovation economy" as much as responsible "growth?" Can we accelerate the development of the next generation of startup founders, creators, artists, and makers who viscerally understand that what they make has unintended consequences? Can we be intentional about the kind of world we want to build in the future?

A refrain echoes throughout all six episodes of *Years and Years* as the consequences of surveillance capitalism rocks the Lyons family – "what are we going to do now?"

What, indeed. While we, among a whole group of institutions, public sector leaders and civil society work on the answers, we also need to pay attention to lessons learned in the past 20 years. Some things when broken can never be properly mended. The days of "moving fast and breaking things" have revealed their inherent destructiveness and we can't go back to them. The public commons need to be protected, both in cyberspace and the real world. And though we may eventually need smart technology, we need smarter ways of working together if we truly want to build a world we can all be proud of.



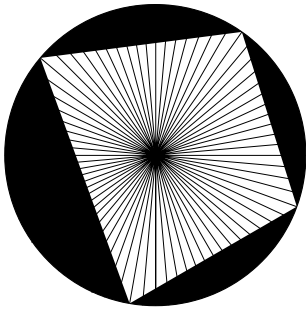
FUTURE CITIES - WHO OR WHAT DECIDES?

[Guy Baeten](#)

In the smart city, we will not change the city through thoughts and discussions, political compromises, plans, demonstrations and revolutions – democracy – but through algorithmic outcomes – technology. The very way we know the city – our epistemological relation with our urban environment – will be fundamentally altered. We no longer know the city ourselves, at first hand. We know it after the processing of big data generated by the city itself. The results will give us insights in the workings and beings of the city in ways the human brain can never deliver. The city, then, will be an algorithmic oeuvre.

There is nothing inhuman or superhuman about the algorithmic city. Big data science, in this case mobilized to build a city, is just as much an outcome of human ingenuity as engineering accomplishments, architectural aesthetics or planning restrictions. The question is not whether the city built on big data is good or bad, utopian or dystopian, but whether this is the city we want. The question is ultimately the question that has haunted urban researchers ever since Henri Lefebvre formulated it: who has the right to the city? Who owns, shapes and interrupts its rhythms and flows, its architectural beauty and everyday uses, its pasts and futures? We are now at the point to decide if and what influence the big tech corporations can have in urban development, if and what kind of algorithmic planning we want.

The case of Quayside is not the first time a big tech giant has shown a concrete interest in urban development. And it has no small ambitions: “Sidewalk’s mission is not to create a city of the future at all. It is to create the future of cities” (Sidewalk Labs, Proposal Quayside, Appendix, 2017, p.12). It has made public a wide range of documents, videos, maps and much more that reveal how big tech could conjure up an urban environment, and how they believe they can determine its best morphology. It is of crucial importance that we carefully scrutinize Sidewalk Labs’ explicit and implicit claims and aims about urban planning and everyday life in the city. Only then can we begin to decide ourselves whether we want global tech corporations to ‘decide the future of cities’.



CITY OF EXPERIENCES

[Christopher Pandolfi](#)

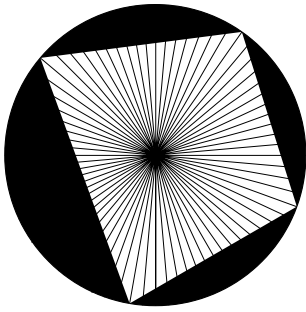
As we continue to move through the 21st century, the experience of life in the contemporary has surpassed the classic development models of the 20th century.

We are now living in a fluid presence between the virtual and physical worlds. This way of living is shaping alternative modes for how we exist, providing us with the potential to manage and create multiple realities and stories which influence how we want to be seen and understood.

The major issue we face is how to adapt and understand ideologies, structures and systems in this new way of living, modifying the definition of cities to encompass the experiences of the invisible cities that extend beyond physical infrastructure.

Emotions experienced at the personal level have created new layers of interactions in urban spaces that are often completely overlooked by planning processes because of a lack of the tools necessary to design policies that better incorporate them. As the digital landscape evolves, humans have more frequent opportunities to interact with interfaces as they navigate the city and its experiences, creating a series of micro-interactions that occur across and throughout urban spaces.

The intention of creating policy that integrates and embraces these new layers of interactions is not to enforce micro-regulation of micro-interactions, but instead to treat the city as a space of greater potential to support and facilitate new people-to-people and people-to-object interactions. Encouraging this new way of approaching interaction, policy and city building has the potential to develop more adaptive service delivery and relationships within the city in the future.



CITY OF EXPERIENCES

[Christopher Pandolfi](#)

The underlying goal for the City of Experiences project is to continue questioning how cities are constructed and who they are constructed for. The popular discussion and ideas around the smart city and tech-utopias are not new, although maybe the technology used to drive them is. What is needed now, as a society, is to stop waiting for the acceleration of technology to determine how we will live, and instead be active in creating the necessary platforms for society to imagine what experiences they see in their lives as a driving force for design. The City of Experiences is a project that, through different experiments and engagements, will continue to explore this hypothesis.

Project Goals

To engage audiences from all walks of life and illustrate how to reframe the thinking around city design. By putting emotions and feelings at the forefront.

To experiment with tools and methods that better engage residents and designers to find new methods for city design.

To create a series of systems and prototypes in order to visualize a wide variety of experiments.

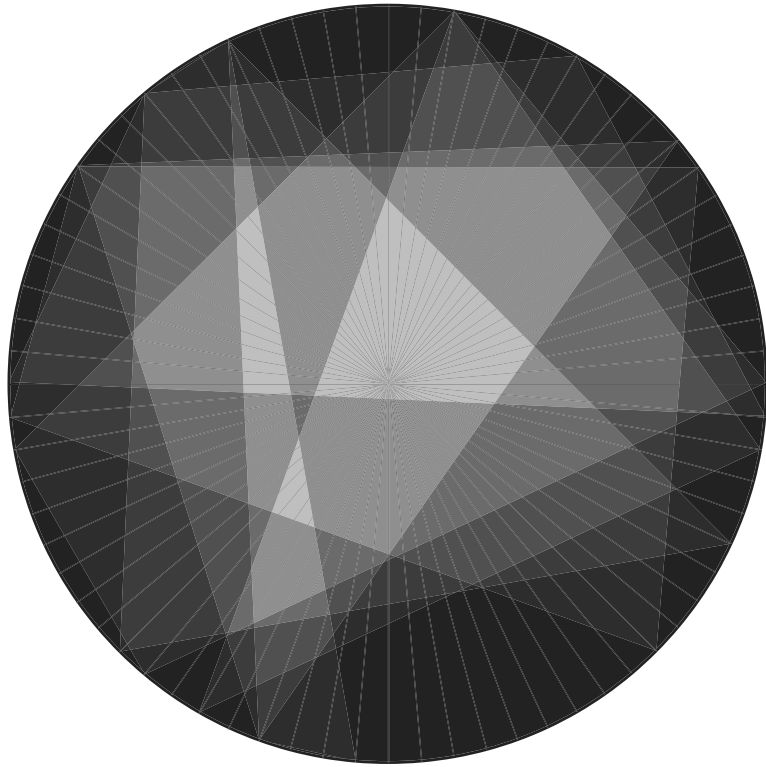
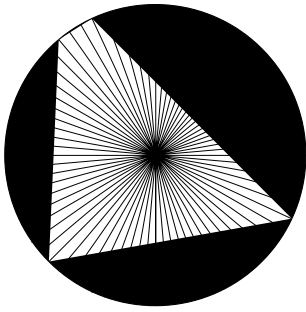


TABLE 13



MAKING A DIFFERENCE IN THE LIVES OF VULNERABLE YOUTH

[Kofi Hope](#)

Youth equity is a pressing issue in the Greater Toronto and Hamilton Area (GTHA). Youth unemployment remains entrenched; Toronto retains the dubious distinction of being Canada's child poverty capital; and Black, Indigenous, and racialized young people face significant achievement gaps.

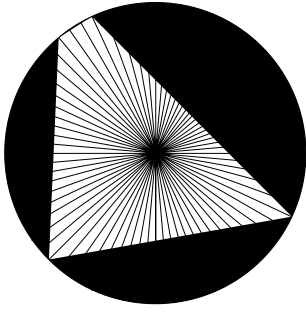
Having spent my career in the youth sector, I know there is no shortage of volunteers, non-profit organizations, and government services dedicated to supporting youth. What we lack are integrated, community-based strategies that coordinate the available services and supports to fill service gaps, eliminate duplication, and increase impact. One catchphrase to describe such an approach is "collective impact." Collective impact is now in danger of becoming one of the most overused terms in the social change world.

Yet in the GTHA and I daresay the Canadian context, examples of true collective impact models are rare. Everyone claims to be doing it, but no one seems to be doing it well. What is needed is this: community-based strategies, spearheaded by municipalities, to coordinate services for youth. Within these strategies we need a focus on vulnerable youth, with specific attention to transition points in these young people's lives and dedicated long-term supporters to help them navigate systems and achieve success.

Collective impact originated in the youth sector, the best-known example being the Harlem Children's Zone (HCZ) in New York City. Geoffrey Canada and his team created a "cradle to college" model for coordinating children and youth programs across Harlem to all work towards the goal of increasing post-secondary achievement in that community. The Promise Neighbourhoods initiative, championed under the Obama administration, attempted to replicate this model across the United States. It followed the same idea: get communities to identify common goals for social change then ensure that different stakeholders work towards those goals in one integrated system. Yet collective impact models like these are extremely difficult to create.

The social service sector, despite all the talk of "partnership and collaboration," is highly competitive. In a funding environment in which most agencies are under-resourced and increasingly asked to do more with less, all the incentives are to look out for your own agency and never give an inch in the service delivery space. Meanwhile, collective impact requires a huge degree of collaboration from agencies. Quite often, it's the very same funders who have created such a hyper-competitive environment who are asking for this degree of coordination.

Further, collective impact efforts are typically add-ons to existing competitive funding streams, and there is little intention to make them truly transformative.



MAKING A DIFFERENCE IN THE LIVES OF VULNERABLE YOUTH

[Kofi Hope](#)

Rarely do funders provide the additional dollars needed for the upfront, multi-year, organic work required to get a community to come together to define collective goals and coordinate services. In the GTHA, much of the push for collective impact has come from the Province. Although the Province may have the best of intentions, many ministries lack the local knowledge required to really do collective impact well.

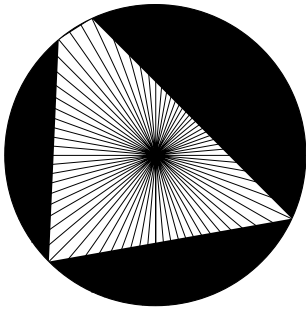
This is where municipalities come in. They may not be able to provide all the dollars, but they have the local leadership and understanding required to help create neighbourhood-based or city-region-based collective impact strategies. Cities can help identify the right communities to target for these frameworks. They know the local agencies and can help coordinate government bodies that interact with youth: schools, police services, children's aid societies, social housing providers, and youth justice institutions.

Such strategies are too costly to have in every municipality. They are most needed in communities with the largest barriers to youth success. Investing early in youth who face multiple barriers saves society millions of dollars in incarceration, lost productivity, and emergency room visits.

Within this concern for the most vulnerable, we must focus on transition points. Change is difficult for anyone. For vulnerable youth, transitions are especially hard: leaving the care of Children's Aid, leaving high school, leaving incarceration, or leaving a life-skills program. At such times I have seen youth fall through the cracks, when they move from a context in which they are getting support and access to resources to one without support or resources.

What could help is dedicated, personalized support for vulnerable youth on their journey towards maturity. We talk in the field about the benefits of individualized case management, of providing "wrap-around" social supports customized for youth. These supports do work, but are always time-limited. When a young person leaves one program or agency, the supports rarely follow.

Municipalities could provide dedicated staff, similar to provincially-funded Youth Outreach Workers, who could act as long-term supporters and system navigators for vulnerable youth. For example, when a youth gets kicked out of school, he or she could be assigned such a supporter. This individual could help refer that young person to places to get work, or a General Equivalency Diploma (GED), or other supports.



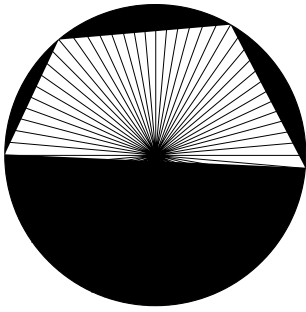
MAKING A DIFFERENCE IN THE LIVES OF VULNERABLE YOUTH

[Kofi Hope](#)

After the first referral, the supporter and the young person could keep their relationship in place, for years if necessary, helping the youth access the next level of services or supports they need. This is what the best youth workers already do, but rarely is it systematized. By making dedicated youth supporters part of a collective impact system, we would add the “glue” to make sure the young people who most need support stay connected and access the available resources.

Youth issues are complex. They overlap all levels of government and involve individuals who over two decades go through many development stages, each requiring specific services and supports. But complexity does not make the issues insurmountable. By better aligning the system we have and putting a marked focus on the most vulnerable our region, we can unlock the potential of many more young people, to the benefit of us all.

<https://munkschool.utoronto.ca/imfg/research/bold-ideas/making-a-difference-in-the-lives-of-vulnerable-youth/>



VALUING THE SACRED IN THE CITY

[Jayne Engle](#)

'The teachings of our elders are not about the past but about the future.'
Douglas Cardinal, Indigenous elder, philosopher, architect and city planner

In the twilight pre 2020s, climate and inequality crises loom. Achieving the Sustainable Development Goals by 2030 will require reassessing what we value and how we attribute value. The notion of 'sacred value' is instructive for cities, which are key sites of societal transition.

Sacred values are visceral. They are tied to humanity and all life, rather than religion. They include: freedom, health, nature, equality, trust, participation, honour, and justice. They reflect rights to voice, difference, and human flourishing; and rights of nature and future generations. Sacred values hold transcendental significance. They are often non-negotiable and protected from trade-offs with non-sacred values (e.g. money), because they tap into ethical principles. People are sometimes willing to die for sacred values. Following are four civic dimensions.

1. Space

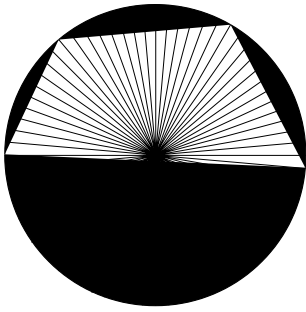
The site is to the city what the cell is to the body. Each land parcel merits care – not merely for its 'highest and best use' (non-sacred value), but for its sacred value contribution. Questions arise: Could accounting rules change to recognize rights of nature and thereby strengthen community and disaster resilience and create regenerative infrastructure and practices? Should urban street trees, aquifers and other ecosystem assets be on the balance sheets of cities?

2. Time

Manifesting past, present and future in cities means embedding wisdom of ancestors, nourishment of people living now, and rights of future generations. Regulating for 'seven generation cities' would require that we were answerable today as ancestors of the future. This would strengthen capacity to think long-term, raise expectations, reveal imaginaries of future possibilities, and write new narratives about what cities can be.

3. Agency

Agency is the power of all people to co-create society. Everyday expressions include collective cooking, making and repairing, bicycle sharing, etc. Agency extends to human-nature collaborations such as gardening, stream-daylighting and re-naturalizing formerly paved space. Agency also entails the right to escape in the city -- to be anonymous and not under surveillance. Collective agency is sometimes expressed in 'right to the city' charters.



VALUING THE SACRED IN THE CITY

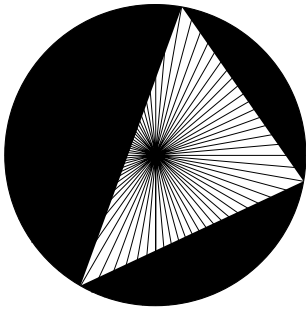
[Jayne Engle](#)

4. Togetherness

City-building is about managing our co-existence in shared space. It fosters inclusivity if we understand the city as a commons where people care for resources and each other and 'make kin' with all forms of life. By designing for practical participation – in libraries, public squares and other civic commons, we can build social infrastructure for everyday community resilience as well as times of crisis.

City-building reflects values and how we attribute and extract value. A sacred value lens begs questions like: Can 'smart' cities foster equality, public trust, regenerative design, and biophilia? What are the technologies and systems financing tools required to value what is sacred? Are we building physical, digital and social infrastructures such that children in seven generations will thrive in green and just cities? How are Indigenous wisdom, intercultural worldviews and artists inspiring and shaping visions of possibility for future cities?

If we are to be good ancestors, we must see beyond the daunting limitations of current city-building and co-create paradigms for a new sacred civics.



EVALUATING CITIES: HOW WE TREAT OUR MOST VULNERABLE CITIZENS

[Gil Penalosa](#)

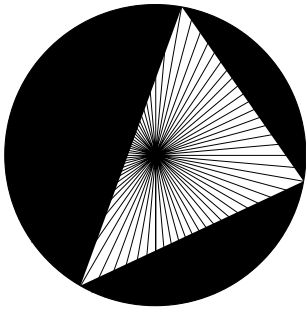
When people and organizations evaluate cities, usually the indicators are around the average per capita income, number of cars per x number of residents, how life is for senior executives of large corporations (The Economist's Most Liveable), flights in and out, etc. The real measure of a great city must be how does it treat its most vulnerable citizens: the children, the elderly, and the poor.

We created 80 Cities thirteen years ago based on a simple but powerful concept: what if everything we created in our cities, such as sidewalks, parks, crosswalks, schools, libraries, buildings, public transit, etc., all had to be great for an 8 year old and an 80 year old, as indicator species. It'd be good for all, from 0 to over 100; we must stop building cities as if everyone was 30-years-old and athletic and create cities for all.

When we think of children in Toronto, we often forget that one in four live in poverty! Over 100,000 children and youth who want to register for recreational activities are turned back for lack of space. The levels of physical activity have been decreasing over the past two decades while the rates of obesity continually increase.

From the age perspective, the 0 - 5 year olds are the children most underserved. In Toronto it is less expensive to pay for a child to go to university than to daycare, when it's been known for years that the most important years in the life of a person are the initial ones. The overwhelming majority of parks have activities for children 5 - 12, but nothing for 0 - 5.

We are living longer, much longer. The life expectancy in Toronto has more than doubled in the past 150 years. However, the older citizens are seen as a cost to society when they can be a magnificent asset, people with knowledge and experience, healthy and many wealthy, people who can contribute much to society and live a happier and healthier last third of their life. The population of over 65-year olds will double and people over 80 will quadruple; it's a great opportunity.



EVALUATING CITIES: HOW WE TREAT OUR MOST VULNERABLE CITIZENS

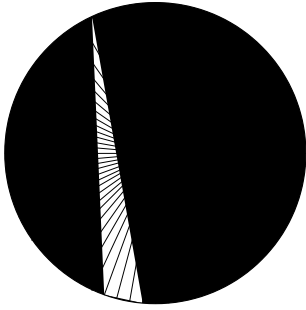
[Gil Penalosa](#)

The population of greater Toronto is probably the fastest growing urban region in the developed world, but our leaders do not seem to have a sense of urgency. It will increase by over 50% in the next 30 - 40 years, and if we analyze the communities that we have created in the past 40 years, the overwhelming majority are mediocre; they're not sustainable environmentally, financially, and not good for physical or mental health. We must do cities radically differently.

Obviously, Toronto is good, which makes many people complacent, not realizing that we are far from great and that large segments of the population are being left behind. We are the most diverse large city in the world, but not well integrated; even in the public sector, the overwhelming majority of senior positions are held by white people, while visible minorities as well as recent immigrants are mostly ignored.

The issues to create a great city for all are not technical or financial; they are about policy (not partisan politics), and everyone must participate. We must develop broad alliances including elected officials from all levels, multi-departmental public sector staff, and especially community, including activists, media, business leaders, everyone.

We are doing this, but we must do more, and faster. It's important to do things right, but even more important to do the right things. It's urgent to develop a shared vision, followed by action, action, and more action. We can and should build an equitable city for all, including all social, economic and ethnic backgrounds.



DIGITAL MASTERPLANNING: A NEW DISCIPLINE?

[Léan Doody](#)

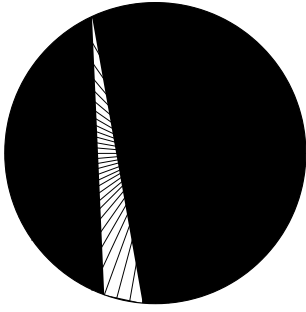
In cities, technology platforms like Airbnb, Uber and JustEat are changing land use and mobility systems and making new services possible, even while they reshape labour markets and industries. City governments are using digital technology and data to address congestion, upgrade lighting, save energy and empower communities. Citizens rely on their smartphones to navigate, pay for transport, access entertainment, shop and generally reduce friction in their urban lives.

This presents an opportunity for architects and urban designers to incorporate digital services into our urban places. But how should they consider digital technology when masterplanning city projects? Unlike other city systems (e.g. transport) the land take or space required for telecommunications equipment is small and therefore has been overlooked in masterplanning.

But yet at a city scale, the use of technology has had very real impacts on how space is organised, configured and used. For example, the impacts of online shopping include changes of use on the high street, increased need for logistics parks, as well as increased traffic from deliveries. In the UK, the retail stalwart Marks & Spencer has closed one hundred shops across the country, in response to their decreasing need for physical space-- 33% of their clothing is now sold online. As Marks & Spencer is typically an anchor for local high streets, this is leading to further challenges for town centres. How can planners and urban designers facilitate citizens' desire for convenience into new models of retail, with supporting infrastructure (logistics) as well as new models for town centres?

Another example is the growing trend for more food delivery. Some restaurant chains are now making decisions on where to locate based on how easy it is for the delivery vehicles to reach them. Pedestrianised town centres are no longer attractive. Like retail, restaurants will need to raise their game to offer better experiences and better surroundings—otherwise they're competing with people's homes (although this will have different impacts in different places—interesting links to housing stock!). The chain restaurants will probably be most affected in terms of different spatial layouts. The logical extension of this for chain restaurants in particular is that they open standalone kitchens in places with lower rental costs and good access to logistics.

As online and physical spaces converge, the impacts on cities will continue. On a more granular level, there will be more technology in the public realm as more IoT and smart cities solutions get rolled out in our cities. Our city plans will need to accommodate these spatially, but also at a technology systems, data and policy level (privacy and security frameworks).

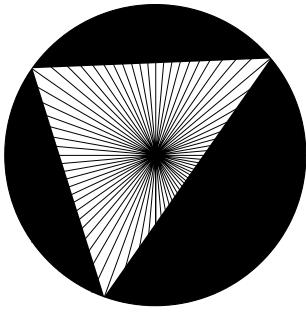


DIGITAL MASTERPLANNING: A NEW DISCIPLINE?

[Léan Doody](#)

The use of digital technology has altered our experience of places, from finding our way around to accessing food. There is more technology in the public realm. New expertise is needed. We need experience design which takes account of people, how they move and live in space, and technology to better deliver experiences to people. We should be taking new considerations into account in designing city spaces—technical, project governance, spatial, ethical.

We believe that there is a need for a new role of the digital masterplanner within the masterplanning team, working with planners, architects and urban designers to work through the possibilities for space from good use of technology, working for and with people.



WHY WE NEED POLITICAL PARTIES AT CITY HALL

[Barney Savage](#)

I vividly recall the moment I felt the warmest affection for democracy. My daughter saw federal campaign signs on yards in our neighbourhood, and asked about elections. My wife and I explained that communities and neighbourhoods across the country each select one person to represent them in a parliament in Ottawa. This group then gathers to make decisions about how our country should be run, and how we should spend our shared resources. It sounds wonderful. In fact, it is wonderful.

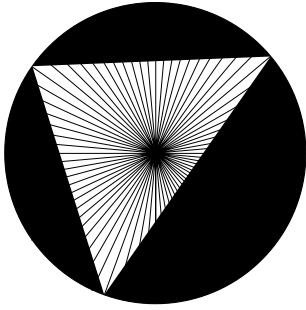
Many of us belong to other organizations that work the same way. Democracy is a fundamental principle governing our resident associations, neighbourhood associations, condominium boards, professional organizations, sports leagues and more. We elect trusted people who are able and willing to serve, and we hope that these leaders will make wise decisions.

But our federal and provincial parliaments do not operate simply as councils of trusted wise people. The candidates we select represent political parties. There is not much about political parties that gives us a warm glow, but they serve a vital function in our democracy. They require local representatives be part of a country- or province-wide plan, and to take responsibility for the trade-offs required to govern – and to vie for government.

Running a country is hard work, and it is complicated work. Our governments are elaborate, complex operations. How could 300 representatives with exclusively locally-derived mandates make decisions about national defence, taxation policy, environmental protection or international trade? Have you ever tried to organize 300 people to make a decision?

Political parties serve another very practical function. They bring together slates of candidates, teams with diverse expertise and perspectives. For most of Canada's history this has involved assembling powerful, electable white men from across the country. Today – to greater or lesser degrees – we expect parties to offer a team that can be expected to represent broad diversity of backgrounds and perspectives, including ethno-racial diversity.

At the federal or provincial level, a governing party's manifest failure to address key issues would be a political crisis. A governing party's utter failure to represent the diversity of the population would also be a major problem. By these two measures Toronto City Council is failing us, and yet most members of City Council win easy and repeated re-election.



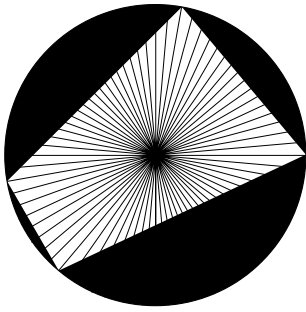
WHY WE NEED POLITICAL PARTIES AT CITY HALL

[Barney Savage](#)

Transit planning has been a disaster. Every year Council patches together a budget with duct tape, while ignoring the warnings from senior staff that our financial model is utterly unsustainable. Civic leaders trumpet cultural diversity as our crowning achievement, yet our municipal representatives are – as a group – appallingly unrepresentative of the city’s ethno-racial make-up. (Our group of city MPs and MPPs is far more diverse than our city councillors.)

Perhaps we are addicted to the warm glow that comes from electing independent-minded local representatives to City Hall. Our municipal governance model looks like the way we run many of our local associations. But our City is an extraordinarily complex organization, charged with making enormous decisions. Why would we expect someone to choose a long-term, city-wide vision when they stand a pretty good chance of having a job for life as a councillor who ministers to local needs?

We live in a city that is generally prosperous, peaceful, and successful. But our municipal government as currently structured is failing us. We need city councillors to stand for election as part of strong, diverse teams with thoughtful plans for addressing the city’s biggest challenges. That’s why we need political parties at City Hall.

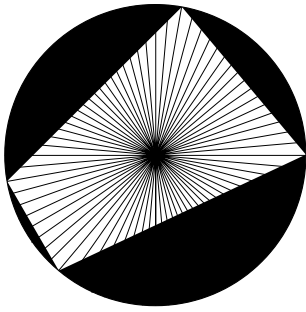


A DIGITAL LAYER FOR ALL TORONTONIANS

[Andrew Clement](#)

Sidewalk Labs' original vision for Toronto's Quayside neighbourhood helpfully drew attention to the importance of the 'digital layer' as an essential feature of contemporary city building. This concept incorporates the foundational elements of digital infrastructure – an integrated network of fibre optic cabling, access points, databases and software that enables the wide range of social, economic and cultural activities of today's vibrant cities. While the digital layer obviously offers significant new capabilities that transcend more familiar urban network infrastructures, such as roads, sewers, water mains and the electrical grid, there are crucial similarities that should not be over-looked amid the rhetorical dazzle of 'smart city' imaginings. Like earlier urban infrastructures, the digital layer needs to be useful, ubiquitous, reliable, adaptable, accessible and affordable for all. But the most important similarity is around ownership, control and governance, for these are fundamental in determining who shapes the infrastructure and whose interests it ultimately serves.

Strong city governments, drawing on existing public governance and ownership models, can take the lead in ensuring that their digital infrastructures inclusively address a wide array of social and economic interests, more so than typically on offer from commercial providers. Developed and operated as a public utility, a metropolitan or even neighbourhood wide digital layer could be an important boost to city departments and other civic services that have growing needs for networking, such as civic governance, schools, libraries, police, firefighting and emergency services, traffic management, parking enforcement, parks and recreation, and health and building inspection to name a few. Not only would the city's major institutions be better served if linked via a city-controlled digital network, but the schools and libraries scattered across the city could further function as 'anchor tenants' that would then make connecting residences and businesses in their vicinity much cheaper. Structuring the network with open architectures and access policies, where ISPs or businesses with networking needs could purchase bandwidth from the city at wholesale rates, would also help foster competition among commercial providers and stimulate a variety of innovative services and entrepreneurial ventures.



A DIGITAL LAYER FOR ALL TORONTONIANS

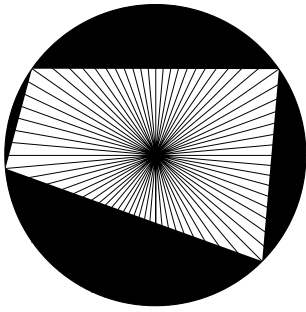
[Andrew Clement](#)

On the other hand, relying mainly on 'market actors' to drive the provisioning of urban infrastructures is short-sighted. One major risk with this approach, especially when dealing with large corporations, is that it inadequately addresses existing power asymmetries. In particular, once vendors become entrenched they have few incentives to invest in their infrastructure rather than maximizing economic returns by raising prices on essential services and keeping competitors out of the market. This results in offerings mainly targeted at and priced for those with the ability to pay, while further depriving the already marginalized of the services they depend on in their daily lives. Such has been the bitter experience in many jurisdictions that have privatized their water and electricity supplies - a pattern likely to be repeated even more starkly where cities allow private actors to develop urban digital layers from the beginning.

In effect, cities have the opportunity to craft much better digital services in the long term by designing them with and acquiring them on behalf of their citizens, much as Canadian governments now do with health care. This will lead to better outcomes than what will occur if residents are left on their own as individuals to face large commercial providers. Such leadership will take political will, particularly in the face of expected stiff resistance from incumbent telecom companies and rampant high-tech platforms, but it is of crucial importance for Canadians' ability to participate fully in the social and economic life of their cities well into the future.

The rise and fall of City-owned Toronto Hydro Telecom (THT) provides a cautionary tale in this vein. In the mid-2000's THT, a subsidiary of the City's public electricity provider, embarked on an ambitious program to provide affordable internet access throughout Toronto. THT already operated a 450-kilometre fiber-optic network, the largest in the city providing data services to many of Toronto's major businesses. THT launched the first phase in 2006 with its One Zone wireless service coverage of downtown core. It was a resounding technical success, with promising return on investment prospects for extending it across the entire city. However, facing various financial and political pressures, undoubtedly including resistance from the telecommunications providers whose business was threatened, the City of Toronto abruptly sold off THT to Cogeco.

This selling off of its crown jewels represented an enormous missed opportunity at a critical time for the City to shape its digital future. Revitalizing Toronto's eastern waterfront with a close eye on the digital layer provides a rare and invaluable opportunity for the City to reclaim the initiative in contemporary urban infrastructure building for the benefit of all.



SMART CITY DIGITAL ARCHITECTURE MUST PUT CITIES FIRST

[Andy Best](#)

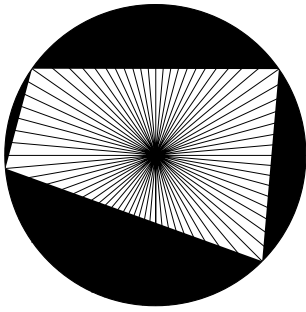
Technology has collided with democracy in Canada, outpacing the ability of our cities to put strong policy and governance around it. The current smart city approach in Canada lacks a systematic emphasis on open architecture, interoperability, and on protecting the value of public data. As cities increasingly deploy connected, data-gathering infrastructure, they risk outsourcing the public domain to large vendors, selling closed systems that encroach on public control of that infrastructure and the data it generates.

The risk is not that we'll stop having local elections. Rather, it's that we'll see a slow erosion of the capacity, effectiveness and moral authority of our cities to fulfil the mandate we've given them, while inserting private sector actors as an ungovernable layer within city operations.

To avoid this future, we need to build and maintain aspects of the digital infrastructure for smart cities in the public interest. We can protect city institutions, create new data-driven forms of economic development, drive government innovation and nurture a vibrant Canadian technology ecosystem, all with a city-first approach:

First, the technology that underpins smart cities must be open, interoperable and not dominated by any one actor. Code is law, and the development of digital architecture, standards and protocols cannot be left to technologists alone. The public sector must lead collaborations with the private sector and civil society to build and maintain digital public infrastructure for smart cities. Doing so will drive government innovation and unlock new forms of economic, social and democratic good for Canada.

Second, we need to fill the governance vacuum in which smart cities are currently taking shape. Local councils and public servants must be able to exercise real control and oversight over complex technology projects, up to and including firing vendors. Regulatory modernization is also required: while we know what technology can do, we're overdue for many decisions about what it should do in cities. Then we must hardcode those guardrails into our policy and regulations locally, provincially and federally.



SMART CITY DIGITAL ARCHITECTURE MUST PUT CITIES FIRST

[Andy Best](#)

Third, the value of public data must stay in public hands. With the falling costs of sensors and network access, there will soon be an explosion in the amount of data generated by public infrastructure, including about how you and I move through public spaces. That data has almost incalculable value to the private sector. While there is not yet consensus on if or how we could safely harness that in the public interest, we must ensure other actors don't scoop it out from under our feet as our public institutions figure that out.

Finally, we need sustained investments in the digital and cultural transformation of Canada's cities. We can't layer technology on top of old process and expect big results. Buying fancy new tech is the easy part -- what's hard is nurturing within city institutions what Alex Osterwalder calls the "tools, processes, rituals and incentives" for innovation to thrive. We often underestimate how much work is required for government transformation. The scale of this challenge requires equivalent investment and attention.

Our cities are the front lines and most vulnerable order of Canada's democracy. The moment we are in is urgent, as Canada's cities seek to evolve to meet the many challenges of the coming century. A city-first approach will ensure Canada's cities emerge stronger, not weaker, from this "smart city" moment.

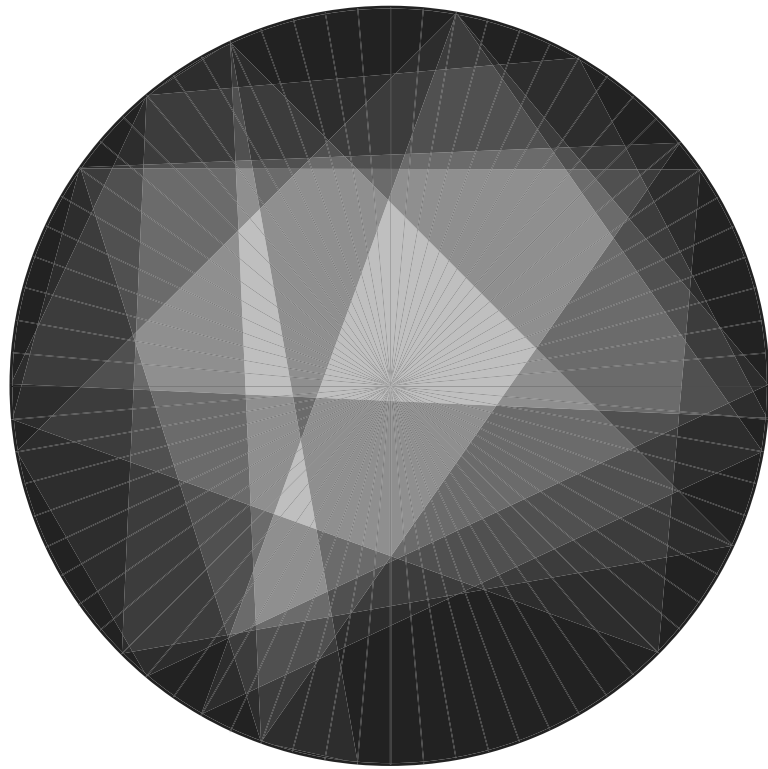
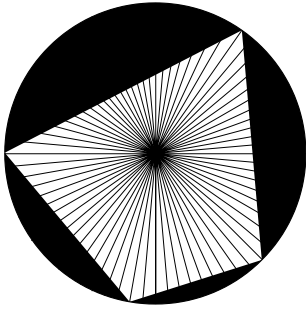


TABLE 14



THE SILVER ROOM

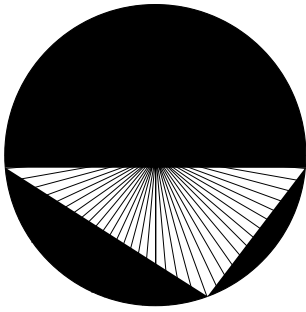
[Eric Williams](#)

The Silver Room (TSR) is an independent retail and community art space in Chicago. Established 20 years ago, The Silver Room has developed into a dynamic, multi-functional retail space and community hub that has served two prominent Chicago neighborhoods. Offering language and dance classes, financial and artist talks, the store educates and promotes wellness. The open mic storytelling series, Grown Folks Stories, started at TSR 10 years ago, developed an audience that has carried it on to performances across the city and to its new home at a permanent theatre space. The Silver Room serves as an incubator for artists and entrepreneurs of many practices.

The Silver Room Sound System Block Party developed with the intent to bring people together and promote neighboring businesses. What started as a quaint gathering of a few friends is now 16 years old and has grown to a capacity of 50,000 people. This one-day celebration of culture features three concert stages, over 50 diverse musical acts, children's programming, pop-up roller-skating, a fashion show and more. The event generates \$2 million dollars for its Southside community. Economic benefits are far reaching but are particularly meaningful for the small food and craft vendors who are traditionally priced out of brick & mortar retail spaces. Beyond the financial impact, TSRSSBP incorporates non-profit entities, promotes wellness, meets an underserved audience, and is programmed to meet all demographics of the community.

For those outside the community, seeing 50,000 of Chicago's Southside come together year after year for a peaceful celebration adds complexity to the traditional narrative of Southside violence. For those within the community, when they see the Block Party team that looks like them, closing off major streets for celebration, it lets future generations know what is possible and that they will build on what The Silver Room Block Party started.

Utilizing home-grown retail as a place of connection has made for a more integrated community that responds personally and quickly to community needs.



FROM “VALUE FOR MONEY” TO “CAPACITY OVER TIME”

[Sam McGarva](#)

Toronto is a city bursting at the seams with potential. Just two years ago, we had the opportunity to reflect on this potential in the Toronto Global bid for Amazon’s HQ2, detailing our diverse, highly educated, and comparatively cheap labour force.

Toronto is also a city full of dreams. We dream of faster, cheaper, more enjoyable, and more equitable ways of experiencing the city. We must also dream about who will be entrusted to implement the new products, services, and infrastructure to enable these experiences.

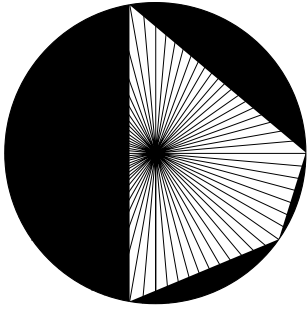
Public-private partnerships (P3s) are a potential delivery method for these development and infrastructure projects. Historically, a key argument for P3s has been that they offer an increase in efficiency by allowing the public sector access to private industry knowledge and experience in successfully managing and delivering these projects. The value of these partnerships can be measured by comparing total project cost between different delivery models, a Value for Money assessment. This purely economic perspective is based on the assumption that the primary value of these partnerships is monetary.

As the public sector now pursues P3s for unprecedented, untested products and services—innovation projects—the efficiencies of industry experience are less justifiable. While a private organization might have more experience with innovation processes (or more experience selling the term “innovation”), this may not translate into an economic benefit in implementation. As public organizations write proposals for partners with “innovation in their culture,” we must understand that the value add of these partnerships is hardly economic—it’s one of culture.

In our Amazon bid, Toronto Global emphasized that “we are progressive, we are diverse, we are inclusive, and we are stable,” but we’re hardly a monolithic city. For these innovation projects, public organisations should be considering how partnerships within and across the city could capture and build on our existing potential.

We shouldn’t be looking to global corporations to bring their culture to Toronto, we should be reaching out to, and enabling, the people and organizations that know this city. This might look like smaller innovation RFPs, proposals from partnered Toronto firms, or another kind of partnership altogether.

It’s time to view public investment on a longer timeframe—we can no longer simply invest in infrastructure and development, we must invest in the reputation, knowledge, and capacity of the people of Toronto.



RE-GROUND URBAN DEVELOPMENT

[Ari Marteinson](#)

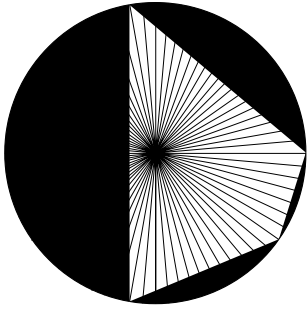
Insights from one place don't necessarily apply to others. Local governments should therefore focus on site-specific initiatives that work for issues, areas and people.

Behavioral economics have found that context is key to changing behaviour, not information. And the implications of this are that people don't act based on the best information, they act based on their surroundings, situations, time of day, etc. For this reason projects and solutions cannot be scaled, and they cannot be copied 1:1 to other places.

Many local governments spend more time and effort on copying solutions and sending their staff to conferences than on developing locally based initiatives in their own cities and neighborhoods. These city development projects and liveability conferences often showcase successful projects, and focus too little on the methods and processes used to achieve results: the underlying methods and insights gained by watching and listening, empathising. The only thing we can really learn from a successful urban project is that an initiative worked once, in one place, for a certain group of people. Cases from other places should act as inspiration, not as copy/paste solutions.

Like any positive change, the best results come from understanding stakeholders, which you can only do by interacting with them, learning about their behaviour, studying their lives and uncovering their needs. The key to better cities is empathy, and a soft, flexible, human-scale approach to development.

In developing cities we need to be humble. We have to adopt the mindset that we only know that we know nothing. City developers should engage in each project not as experts, but as empathic designers, who ask a lot of obvious questions, uncover context, create relationships and, most important of all, spend time in a given locality. We need to build the capacity to truly understand a place before we act on it. And we need to build flexibility into city planning, so we let citizens develop initiatives and create change in their neighborhoods without being stifled by bureaucracy and skepticism.

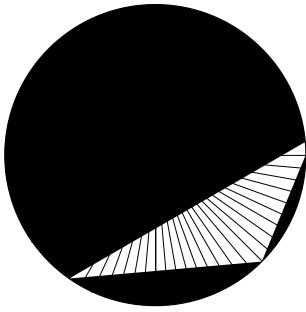


RE-GROUND URBAN DEVELOPMENT

[Ari Marteinson](#)

By listening to and observing citizens we gain valuable insights, which can form the basis of small scale initiatives and interventions that use local insights and seek to create strong communities. These projects, or experiments, should seek to validate assumptions, and feed more insights into the overall aim of creating urban change – living walkable neighborhoods. This soft, iterative, experimental process yields more relevant urban development and the bottom up approach secures greater ownership from the civic stakeholders.

Empathy coupled with urban flexibility and an experimental, project-based, approach to testing, validating and iterating, can re-ground urban development. The real needs of every civic stakeholder can be reflected in our cities.



BUILDING LIVABLE COMMUNITIES

[Gail Lord](#)

Most of our cities and towns have become more “live-able” in the past 30 years in that people genuinely want to live here. However, these increasingly dense places must be sustained as livable communities. For this purpose, urban planners, museums and cultural organizations (my specialism) need to engage with the organizations and institutions that build communities through health and well-being initiatives, affordable housing, education, senior living, welcoming immigrants and job creation. These partnerships are explored in my recent book, *Cities, Museums and Soft Power*[1]

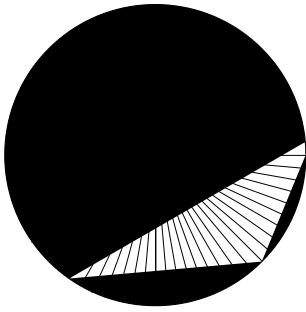
“Soft power” is a concept that was developed by Professor Joseph Nye in the early 1990s to explain how influence can flow from persuasion, attraction and agenda-setting rather than the hard power of military and economic means. In the past four years “soft power” has been increasingly discussed as part of global cultural diplomacy. However our book focused on the application of “soft power” to communities and especially to how museums, heritage and culture can help build society-minded networks that accelerate cultural change and empower citizens to create more livable communities. We identified 32 ways for cities and cultural organizations to co-activate their soft power. Here are four of them --

1. Learning for a Lifetime

This is especially important because people change jobs and move more often than previous generations. Continual upskilling is important for everyone. And the liveable community is one where people learn together – in public schools, libraries, community spaces and museums.

2. Bridging and Bonding

Sociologist Robert Putnam[2] identifies these two behaviours that build social capital, by which is meant the ability of people to solve problems together: bridging occurs when people of different backgrounds share ideas; while bonding is when people from similar backgrounds (or with similar ideas) come together to support one another. We have seen how in the past 20 years, digital technology has tended to reinforce bonding of homogenous groups even when society has become more heterogenous. Cultural organizations too often bond people who have similar education or cultural values – just look at our cultural boards! Sustainable communities create opportunities to connect people of different backgrounds making space for new ideas -- and that's what cities need.



BUILDING LIVABLE COMMUNITIES

[Gail Lord](#)

3. Power Diffusion

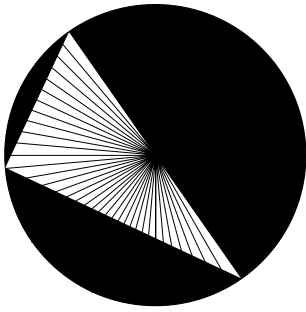
Civil society institutions have the greatest capacity for soft power because they share power. Power diffusion is to soft power what power concentration is to hard power. Successful civil society cultural institutions have diverse networked boards, advisory councils, outward looking policies, opportunities for hiring and advancement reflecting the diversity of the community, and meaningful volunteer and internship programmes.

4. Cultural Commons

Cities are recognizing the value in their histories as a way to attract creative industries, investment, new residents and tourists through heritage and arts districts, adaptive re-use of heritage buildings and cultural tourism. These special districts provide a sense of place, linking past, present and future in a complex changing community. A heritage building will have a meaning for newcomers that is quite different from the meanings ascribed by historically minded preservationists which is different again from the meanings of indigenous people. Celebrating the diversity of stories in a place creates a “cultural commons” rather than an “attraction”.

[1] Gail Lord and Ngaire Blankenberg, “Cities, Museums and Soft Power,” The AAM Press, 2015.

[2] Robert Putnam, “Bowling Alone” Toronto, 2000



LIVING IN THE MESSINESS OF CHANGE

[Marc De Pape](#)

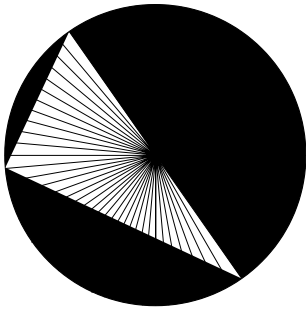
I have often heard it said that a software product is never finished until the last person stops using it, and that releasing is not the end, but rather the beginning. Both apply to cities and their citizens, yet it is often hard to see this wisdom in the master plans.

When I think about messiness, I don't think about clutter. Rather, I think about the process of transitioning from one state to another. And that experience of messiness is born out of a discomfort with the slower processes of realizing change.

When we talk about innovation at the scale of a city, we default to a view where to avoid messiness, change has to happen at a scale so profound that only a top-down masterplan can contain it. By controlling the change, it is made comfortable and orderly. As a result, we seem to gravitate towards projects that promise transformational change, just so we can avoid being uncomfortable in that in-between state. So controlled is that change, the solution is frequently parametrically simulated and modelled to bring order to the chaos in the form of a few sliders in a dashboard; the optimized end state is there, it just needs some tweaking.

I recently joked to a colleague of mine, not without seriousness, that most buzzy innovation frameworks are just rebranded scientific methods. He nodded, but rather astutely observed that the big difference was that instead of trying to understand how the world works, how it changes, how it evolves, the application of these rebranded methods tries to understand whether or not the world will accept the change we wish to impose on it.

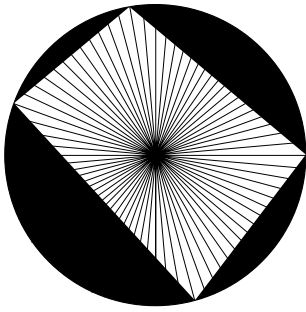
So all the research and thinking that goes into understanding the problem, the people, the context, all the building, measuring, learning, all the pivoting to find fit, is not about understanding how to realize change and have it flourish, but to impose the most accommodated solution with minimal mess.



LIVING IN THE MESSINESS OF CHANGE

[Marc De Pape](#)

And based on our current definition of technology driven success—the ubiquitous “change the world” refrain—the above certainly delivers. Though I can’t help but wonder what it would look like if we focused more on understanding the change we desire, than racing to engender it. What would it look like if we were not so afraid of the messiness that lay between the map (or plan) and its territory? If I look at Toronto, it looks more like the multi-phased transformation of the new Regent Park and less like plot by plot maximization of Liberty Village. So when we transform large parts of the city on the promise of a masterplan, consider not the static proposed end state, but the uncomfortable change that will contribute the right kind messiness for it to take hold.



GOVERNMENT PROCUREMENT REFORM

[Bianca Wylie](#)

As the workforce evolves and matures, there will be numerous digital natives joining the public service. Space should be protected for current and future public service technologists to design and develop the next generation of public sector tech, in particular in critical areas of government operations.

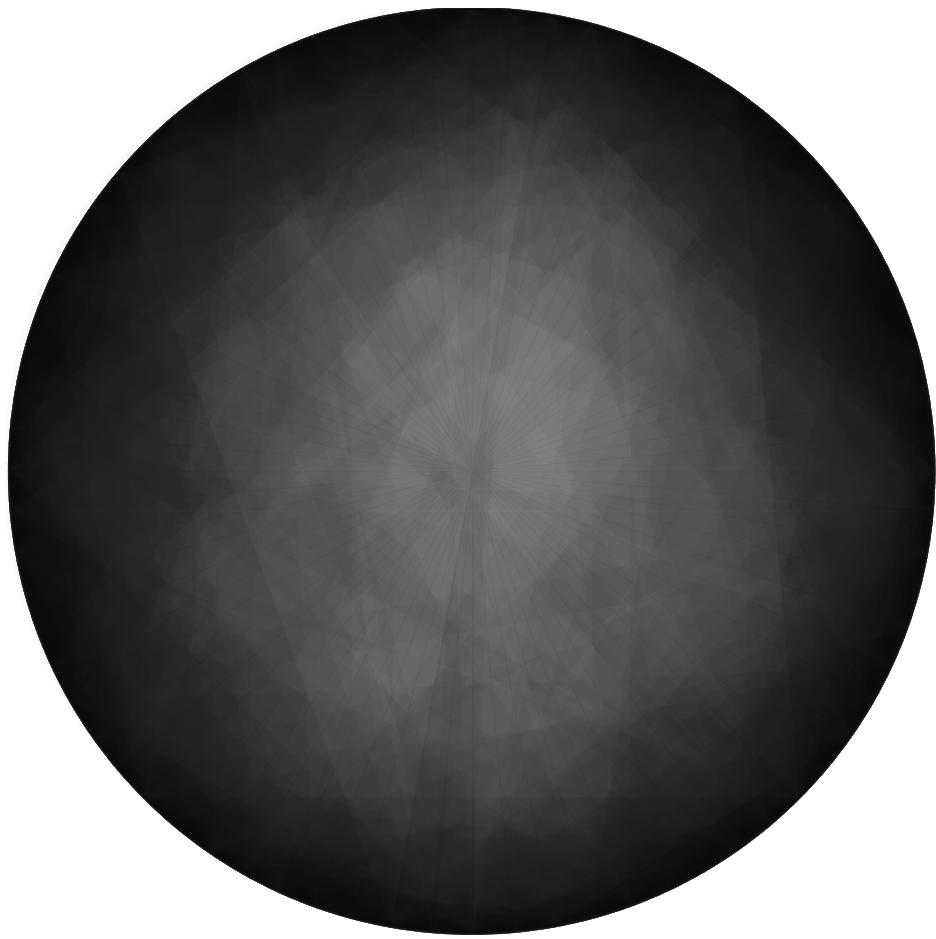
This will involve revisiting buy versus build conversations. Some solutions should be purchased, others should be built in-house and some cases will be a mix of the two options. Different licensing agreements and open source software should be explored to enable efficiencies of scale and shared code among governments.

There has been severe underinvestment in technical capacity within government over the past two decades. Government tech debt and the state of legacy information technology in government is troubling. Beyond the varied impacts of not building some tech solutions in-house, a lack of technology capacity is also impeding the government's ability to properly manage technology procurement as a customer.

The new software products for sale in every public sector vertical market will increasingly leverage automated decision making, machine learning and AI. As such, this is the right time to put a moratorium on the purchase of non-critical software related to public service delivery and even more importantly, the gift of free software or systems. Borrowing from context provided for those working in bioethics, consider the idea of *primum non nocere* (first, do no harm). This idea that sometimes doing nothing is better or safer than doing something is appropriate for our time. The stakes are too high to be making purchasing decisions or tech system use decisions without thoughtful guidance.

A related theme to be considered in this work is the growing and troubling unchecked global consensus around the merits of technocratic governance and data-driven decision making, an approach that informs the creation of government software. This consensus threatens to normalize an efficiency obsession and entrench governance that dilutes and misunderstands the power of political decision making. Some processes and policies are inherently inefficient. Values-based leadership and decision making must be protected.

This is an excerpt from [Governance Vacuums and How Code is Becoming Law](#)



PARTING
THOUGHTS...

WĪSAHKÊCÂHK AWAKES TO THE CITY

After a long sleep, wĭsahkêcâhk woke. “Things weren’t the same,” they thought. The air didn’t feel the way it used to, things didn’t sound like before, but they placed their hand on the land and could still feel the beat of mother earth’s heart so they weren’t too worried. As they emerged from the cave where they slept, they were struck by what they saw on the horizon. wĭsahkêcâhk noticed nistes kihew perched above, and yelled “What are those things over there? They are like no mountains I have ever seen” as they pointed to the horizon with their lips. nistes kihew turned to the horizon and then back to wĭsahkêcâhk laughing he said, “Where have you been? People pay a lot to live in those concrete boxes now, and sometimes they pay a lot more to not live in them.” Puzzled, wĭsahkêcâhk asked, “Why would anyone want to live there? You can’t even feel the land beneath your feet when you’re so high up in the air! What do our relatives call those things?” Still laughing, nistes kihew responded, “condos” and with that word he flew off. Perplexed, wĭsahkêcâhk transformed from a maskwa into a human form, and began walking to the city to see what they’d been missing out on.

Justin Wiebe