

July 2019

Public Meeting on Sidewalk Labs' Proposal for Quayside

Digital Proposals

Digital Proposals: Room and Discussion Topic Guide

Volume 1: The Plans	Volume 2: Urban Innovations	Volume 3: The Partnership	Digital Innovations, Digital Governance & IP
The Quayside and River District Plans	Mobility	IDEA District	Digital Innovations
Social Infrastructure	Sustainability	Roles for SWL	Digital Governance and Privacy
Economic Development	Buildings	Transaction Economics	Intellectual Property
	Housing	Government Obligations	
	Public Realm		

Digital Proposals

- Digital Innovations
- Privacy and Digital Governance
- Intellectual Property

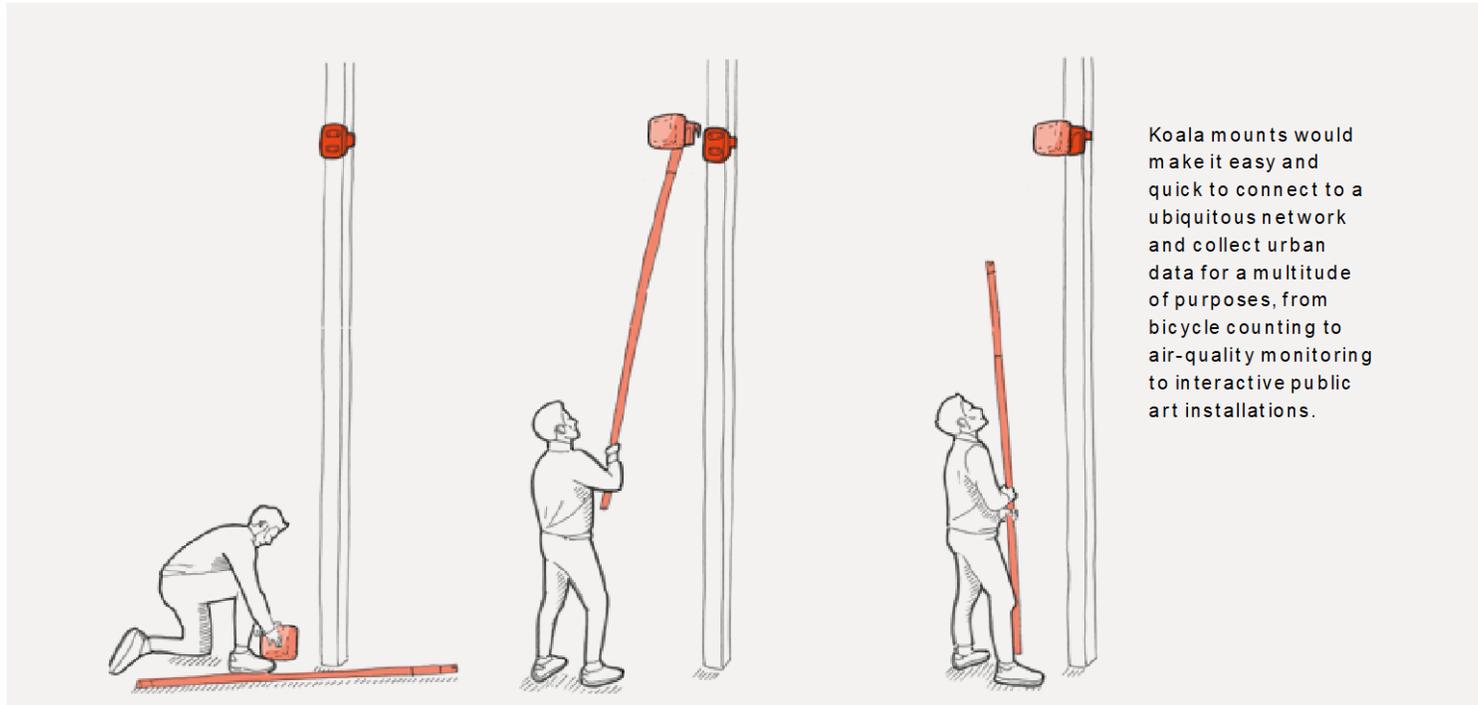
Digital Innovation: What Waterfront Toronto Asked For

- World-class digital infrastructure that advances sustainability, improved mobility, and economic development and supports data-informed decision-making.

Sidewalk Labs' Proposals

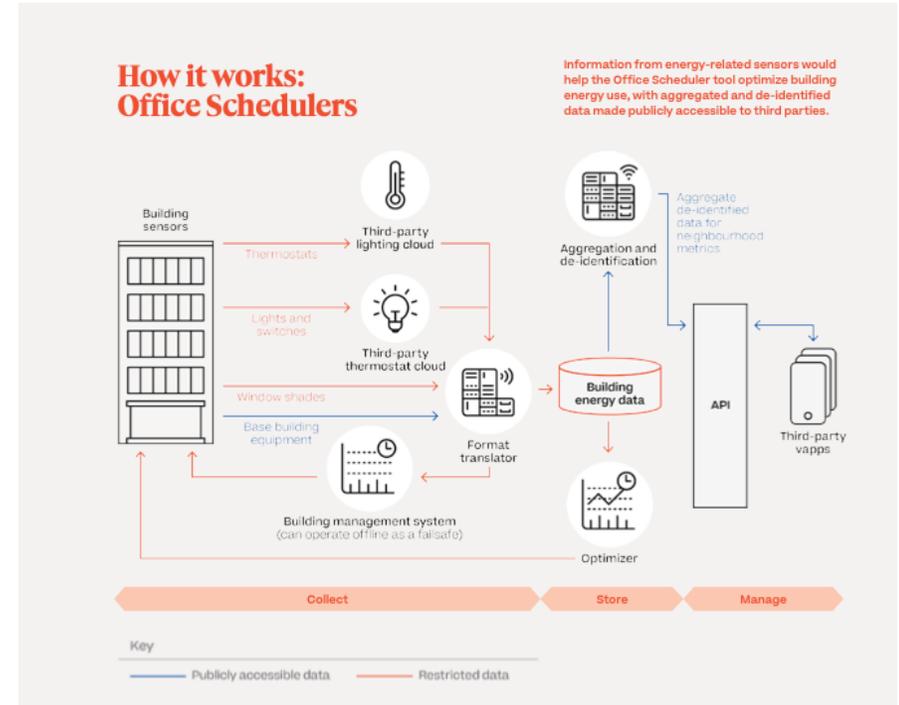
- Ubiquitous internet connectivity including WiFi access throughout the neighbourhood, and the ability for residents, workers and visitors to securely remain connected to their home or office network at any location using “software-defined networking.”
- Use of “Super-PON (Passive Optical Network)” technology to create higher fibre optic internet bandwidth.
- To deploy a standardized mount (an “urban USB”), called Koala or a Koala standardized mount, on street fixtures like light poles that would allow sensors and devices to be installed and connected to power and internet.
- A decentralized digital credential system to allow individuals to share the minimal necessary information for a digital transaction.

Sidewalk Labs' Proposals



Koala mounts would make it easy and quick to connect to a ubiquitous network and collect urban data for a multitude of purposes, from bicycle counting to air-quality monitoring to interactive public art installations.

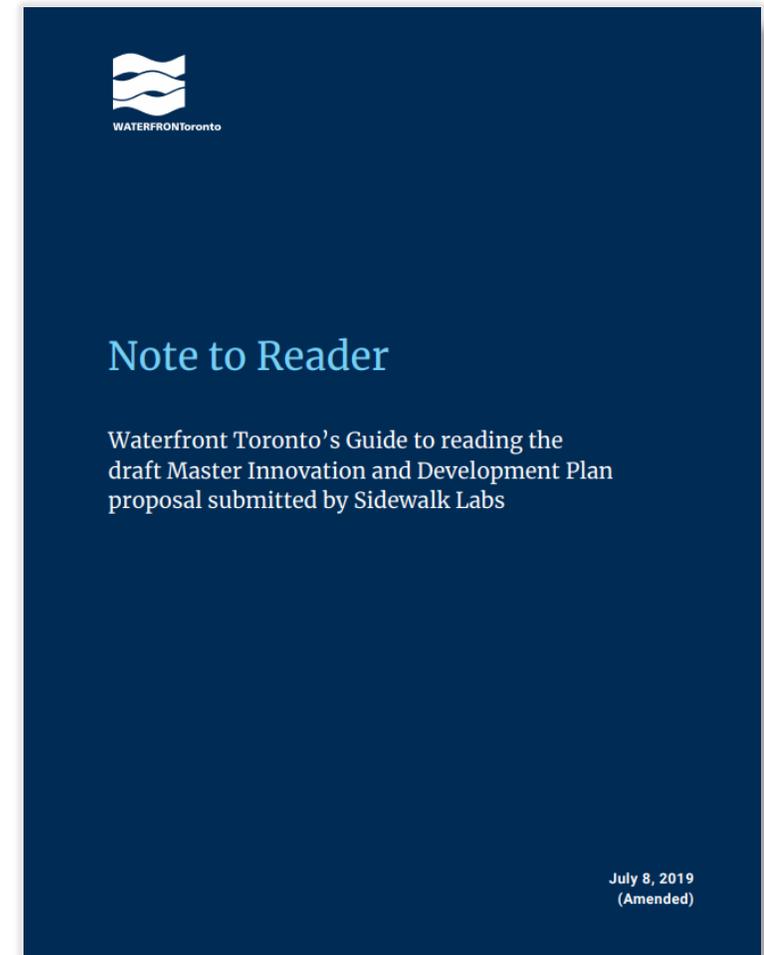
Sidewalk Lab's Illustration of a Koala Mount



Sidewalk Lab's Office Schedulers Concept

Waterfront Toronto's Note to Reader Review: Digital Innovation

- The Sidewalk Labs proposal primarily sets out potential updates and/or improvements to existing practices (for example internet access, sensor installation, proving a credential), as opposed to net-new practices. Each of these proposals is presented as being complementary to, not exclusive of, existing practices.
- Since 2008, Waterfront Toronto has had an agreement with Beanfield Metroconnect as the non-exclusive provider for connectivity in all new neighbourhoods. Beanfield is obligated to maintain the network's service among the best in the world for at least 10 years after the completion of the final building in the waterfront. Sidewalk Labs would be obligated to work with Beanfield Metroconnect in the provision of its ubiquitous network connectivity.



Early thinking on risks to consider

- Reliance on third party decisions (such to create Koala-compatible devices or integrate with a digital credential system) to achieve benefits.
- Potential creation of a preferential environment for vendors who have partnerships or capacity to create Koala-compatible devices or integrate with credential system.
- Potential that a bad actor could gain access to data flowing through Koala mounts or prevent public realm data from being shared in an open, non-discriminatory manner.
- Potential that reducing the burden of installing devices that collect personal information could lead to increased surveillance.
- Potential that Koala mounts or other Sidewalk Labs-installed technology could be a target for malicious activity that disrupts infrastructure.

Privacy and Digital Governance: What Waterfront Toronto Asked For

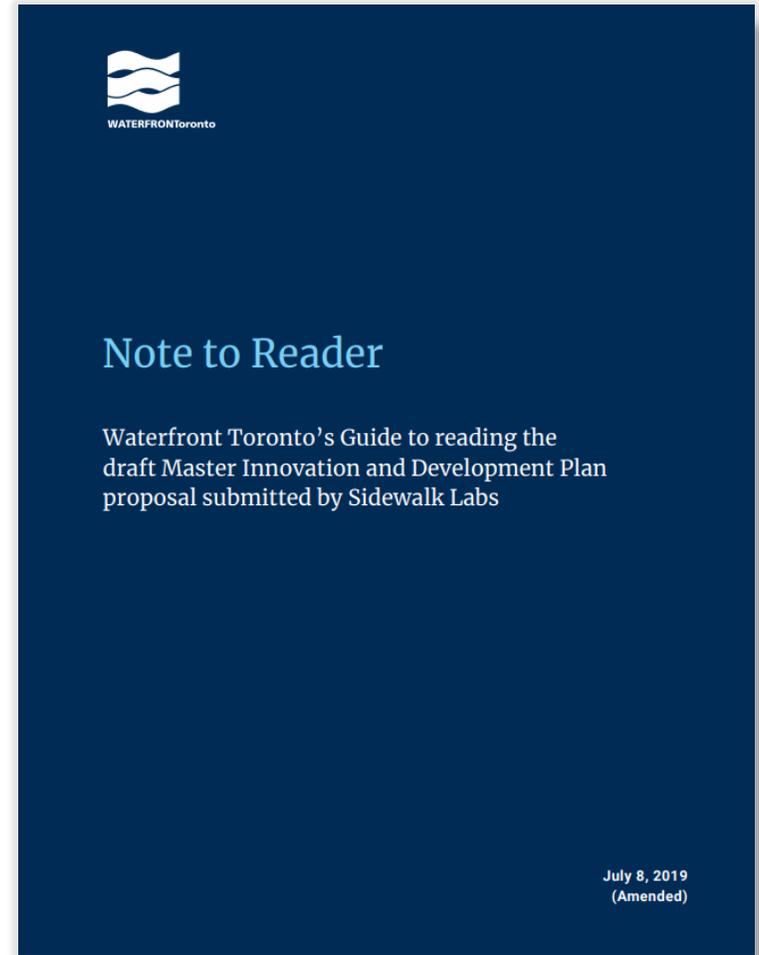
- Urban innovation, including technology-enabled, inclusive, connected communities.
- The required governance constructs to stimulate the growth of an urban innovation cluster, including legal frameworks (e.g. Intellectual Property, privacy, data sharing).

Sidewalk Labs' Proposal



- A digital governance framework that would be incorporated into the development plan for the project and applied – in addition to all existing legislative requirements – to all parties proposing to collect and use "urban data" (before the collection and use of data can begin)
 - Includes creation of an Urban Data Trust: a “steward of urban data and the public interest without stifling innovation”, which would oversee a responsible data use process.
- To adopt, promote, and/or develop “clear standards that make data publicly accessible, secure, and resilient” in order to:
 - allow individuals, researchers, and organizations to more easily access properly protected open data from Quayside;
 - inform decision-making;
 - promote use of this data in the creation of new or competing services; and
 - increase security and resiliency for critical infrastructure.

- There is no concept of “urban data” in Canadian privacy law.
- The responsible data use process would be similar to a “privacy impact assessment” mandated for many public sector entities
- Sidewalk Labs has initial proposals relating to data collection, data use and digital governance and it is proposing a framework that would apply to any proposals to collect and use data in the project area. **It would be premature to make any evaluation of the proposed innovations as they are still under development and not yet at a stage that can be assessed for full compliance with Waterfront Toronto’s principles and the governing legislative and regulatory frameworks.**
- Work is ongoing at all levels of government, among academia and in civil society to address digital governance concerns. Waterfront Toronto is monitoring these developments.



Intellectual Property: What Waterfront Toronto Asked For

- As a Priority Outcome, economic development through establishment of an innovation cluster on Toronto's waterfront, enabling Canadian firms to achieve scale.
- A preliminary framework for a potential management approach for Intellectual Property introduced to or developed through the project, and any revenue sharing between Waterfront Toronto and the Partner.

Sidewalk Labs' Proposal

- Co-created Technologies
 - Sidewalk asserts that co-created technology (for which there would be co-owned Intellectual Property) is not likely to arise.
- Testbed-Enabled Technologies
 - Technologies first deployed at scale in the project area, subject to a number of conditions.
 - For such technologies, the public sector would receive 10% of Sidewalk Labs' global profits for a period of 10 years, starting when each technology is sold to a second customer.
- Patent Pledge
 - Sidewalk Labs will pledge to not assert any granted patents in Canada which cover the software or hardware that enable digital innovations related to the project, so long as companies using those patents do not assert their own patent rights against Sidewalk Labs or its affiliated companies.

Waterfront Toronto's Note to Reader Review: Intellectual Property

- Waterfront Toronto has given significant preparatory consideration to the issue of Intellectual Property and how value can be appropriately captured.
- Waterfront Toronto does not accept that we have not, and will not in the future, participate in the co-creation of technology.
- Early thinking on risks to consider:
 - Will the project area be sufficient to meet the scale requirement for a “Testbed-Enabled Technology”?
 - A profit-sharing model creates challenges related to calculation or audit, as opposed to a revenue-sharing model.
 - While the Patent Pledge is useful, it does not obviate the need for other technology companies, including Canadian companies, operating in Quayside to obtain appropriate intellectual property protection when they sell into markets outside of Canada.
 - What will the impact of the Patent Pledge be in helping to create a competitive innovation environment in Quayside, particularly for those suppliers who choose to take advantage of the patent pledge for their own Intellectual Property strategy?