MaRS


Mars

MaRS is North America’s largest innovation hub

- 1.5 million sq. ft. of research labs and tech offices in downtown Toronto
- 1,300 high-growth ventures supported
- 150 tenants, including Facebook, PayPal, and JLABS

MaRS Data Catalyst

- Cross functional team of data scientists, socio-economic researchers, data analysts, and product developers
- Building research-driven, data-backed tools to drive positive social impact on
  - Inclusive Innovation
  - Climate Change
  - Venture Success

Sidewalk Labs Toronto

Sidewalk Labs – Urban Innovation arm of Alphabet:

- Committed more than $50 million for developing part of Toronto's waterfront
- Envisions a smart city that sets a standard for urban life in the 21st century
- Data Collection on:
  - Transportation data from cars, bikes and pedestrians
  - Data on foot traffic in retail stores
  - Weather, air quality, waste classification
- Dot neighborhood with a standardized physical mount, ("urban USB port") to make it easy and affordable for other companies to deploy additional sensors such as cameras for digital innovations.

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Criticism

1) Wide gap in technological expertise and financial resources between Alphabet and City of Toronto
2) No clear commitment to de-identification at source
3) No clear commitment to opt-in/opt-out of data collection by residents
4) Risk of ‘smart city of surveillance’

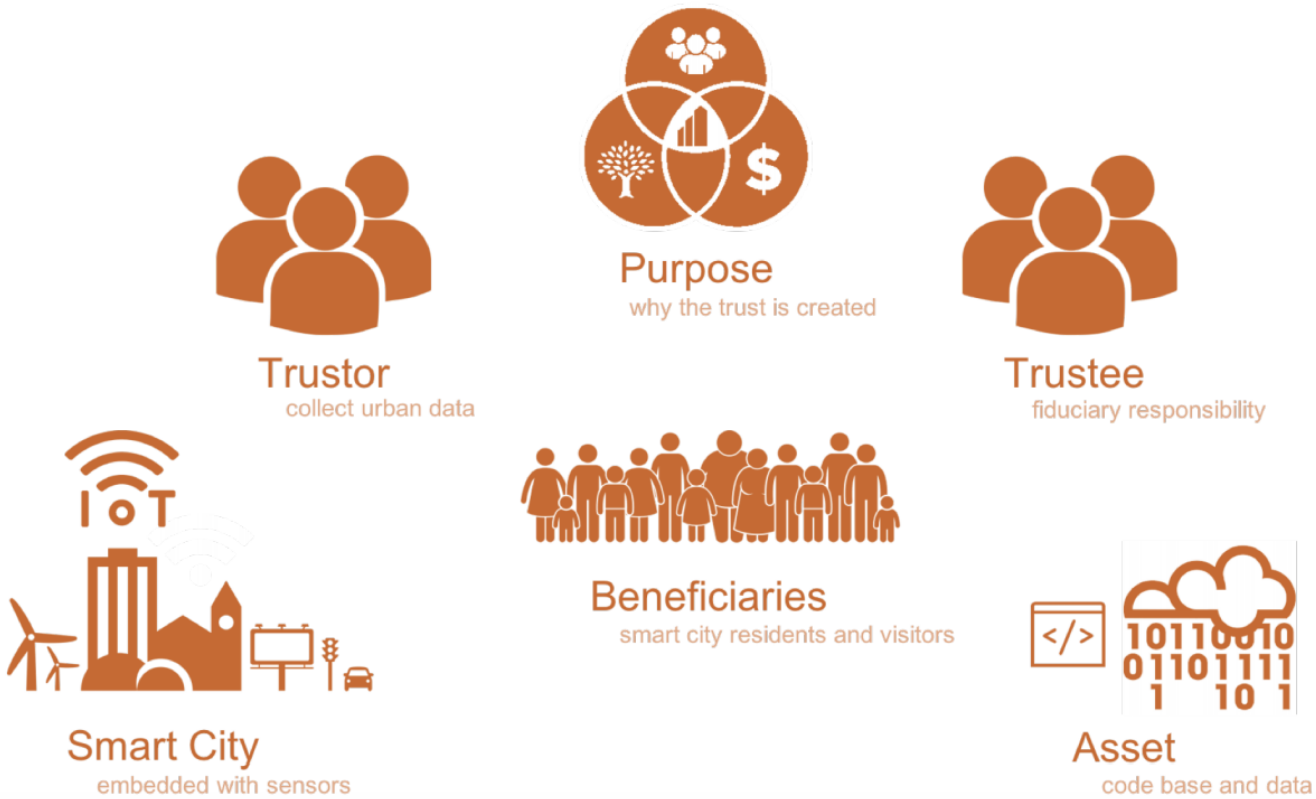
A data trust is one potential solution to the challenge of data governance

A data trust provides one promising approach to responsibly share smart city data. A data trust could:

Steward a city's digital assets and data in the best interests of residents and visitors

Empower residents and strengthen democratic decision-making processes related to digital governance

Actively protect against data breaches and misuses; assure individual and group privacy; advance equitable distribution of value; and promote regional economic competitiveness



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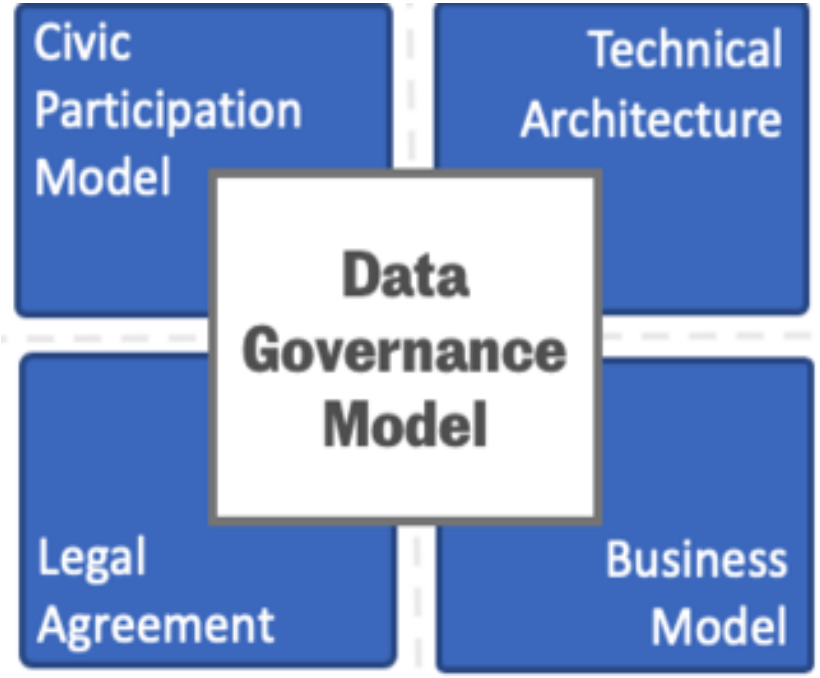
Mobility Data Trust

Purpose: Enabling the personal and goods mobility ecosystem using the digital layer in a smart city

In response to the changing nature of cities and the evolution of integrated and multi-modal mobility models that require data and business intelligence, MaRS is exploring alternative governance models for smart cities, including a civic digital trust, also known as a data trust.

A data trust has the potential to provide a framework to go beyond individual mobility providers' minimum compliance and to be able to scale trusted networks of integrated mobility solutions, optimized for the interest of customers and our cities as a whole.



Mobility Data Trust – Prototyping

MaRS is working with public and private sector partners from across the mobility industry to prototype and test how a data trust could enable new mobility networks by:

✓ Developing a primer on smart cities and data trusts: https://marsdd.gitbook.io/datatrust/

✓ Designing and delivering a workshop convening private, academic, government, and civic tech stakeholders to build shared understanding across sectors and partners so that they can jointly identify and articulate the highest priority aspects of a data trust to prototype

✓ Designing a data trust framework that can meet the needs of partners and the intended data sets and their use by incorporating the legal, technical and business models

- Testing the design with thorough simulations in the form of scenarios and a role-based games that stress tests the role of all participants and the range of possible outcomes
- Publishing a report outlining a validated data trust design framework for mobility, including templates and assets for other communities to use in Ontario

Mobility Data Trust – Opportunity to Participate

MaRS would like to engage public and private sector partners in this design exercise. In this design stage, the input sought is:

- Participation from line business owners or executives to define the business challenge and opportunity, and participate in the prototype simulations in the form of scenarios and games – approximately 1 -2 days effort

- Participation of technical data experts to describe the data, meta data and its technical qualities and limitation on its use – approximately 1 day effort