Opening Up the City of Toronto

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Building a
city that
thinks like
the web

Key Questions

How should we understand the discourse surrounding open data and open government?

How can we support open data and open government to promote transparency, participation and collaboration for the general public?

Project Methodology

- Observations from City Hall, hack-a-thons, consultations, government workshops
- "Grey Literature Review"
  - Policy Documents
  - Slide Decks
  - Conference transcriptions.
- Key informant interviews from app developers, public servants and community-based organizations.

The Agenda

- Conceptual Overview
- Toronto's Journey – From Open Data to Open Government?
- Key observations
- Concluding thoughts
- Discussion Questions

Conceptual Overview

Defining some key terminology

Open Data	Publicly available, open and machine readable data provided under a non-restrictive license.

Data download

- 311 Service Requests (2010)
- 311 Service Requests (2012/2013)
- 311 Service Requests (Dec. 21st, 2013 - Jan. 15th, 2014)

1	CREATION DATE	SERVICE REQUEST LOCATION	SERVICE REQUEST TYPE
466080	30/06/2013 22:04:22	M1H	Long Grass and Weeds
466081	30/06/2013 22:11:01	M4G	Water Service Line-Leaking
466082	30/06/2013 22:13:00	M5P	Property Standards
466083	30/06/2013 22:24:42	M1C	Residential:Recycle Bin:Exchange to Extra Large
466084	30/06/2013 22:26:37	M5P	Property Standards
466085	30/06/2013 22:47:45	M9R	Waste
466086	30/06/2013 22:53:50	M3N	Residential: Recycle Bin: Additional Medium
466087	30/06/2013 23:21:17	Victoria Park Ave/Danforth Ave, East York,Scarborough	Litter / Bin / Overflow or Missed
466088	30/06/2013 23:27:33	M4B	Residential: Recycle Bin: Exchange to Large
466089	30/06/2013 23:39:10	M5V	Road - Pot hole
466090	30/06/2013 23:59:53	M5S	Noise

Conceptual Overview

Defining some key terminology

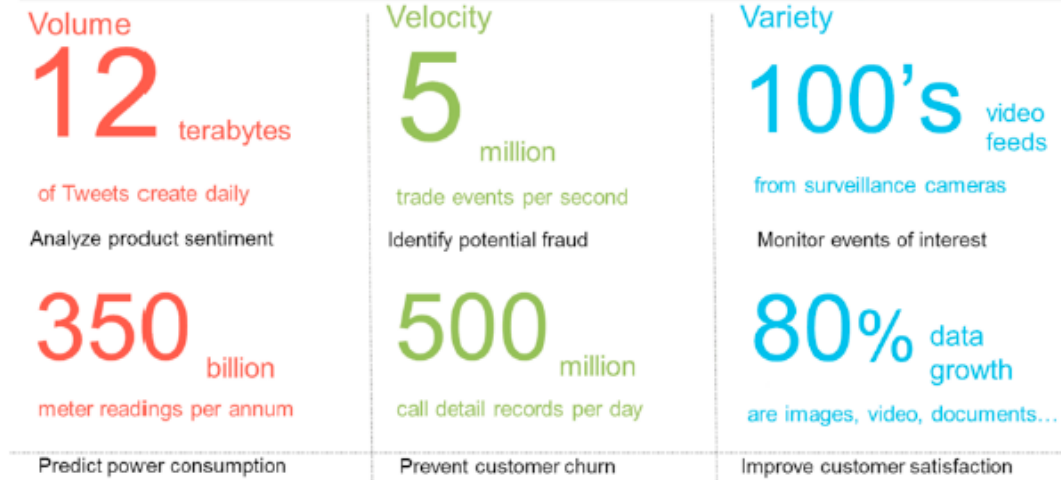| Open Government	A governing philosophy that is characterized be being "open by default." It is guided by broader principles of transparency, accountability, participation and collaboration in government that involves citizens.

Conceptual Overview

Defining some key terminology

Big Data	Large datasets with high degrees of volume, velocity and variety. Often very unstructured and very "noisy."

Lecture slides from a Big Data Class on January 6, 2014 by Professor Mark S. Fox and Enid Slack…

Volume, Velocity, Variety

Volume
12 terabytes
of Tweets create daily
Analyze product sentiment

350 billion
meter readings per annum
Predict power consumption

Velocity
5 million
trade events per second
Identify potential fraud

500 million
call detail records per day
Prevent customer churn

Variety
100's video feeds
from surveillance cameras
Monitor events of interest
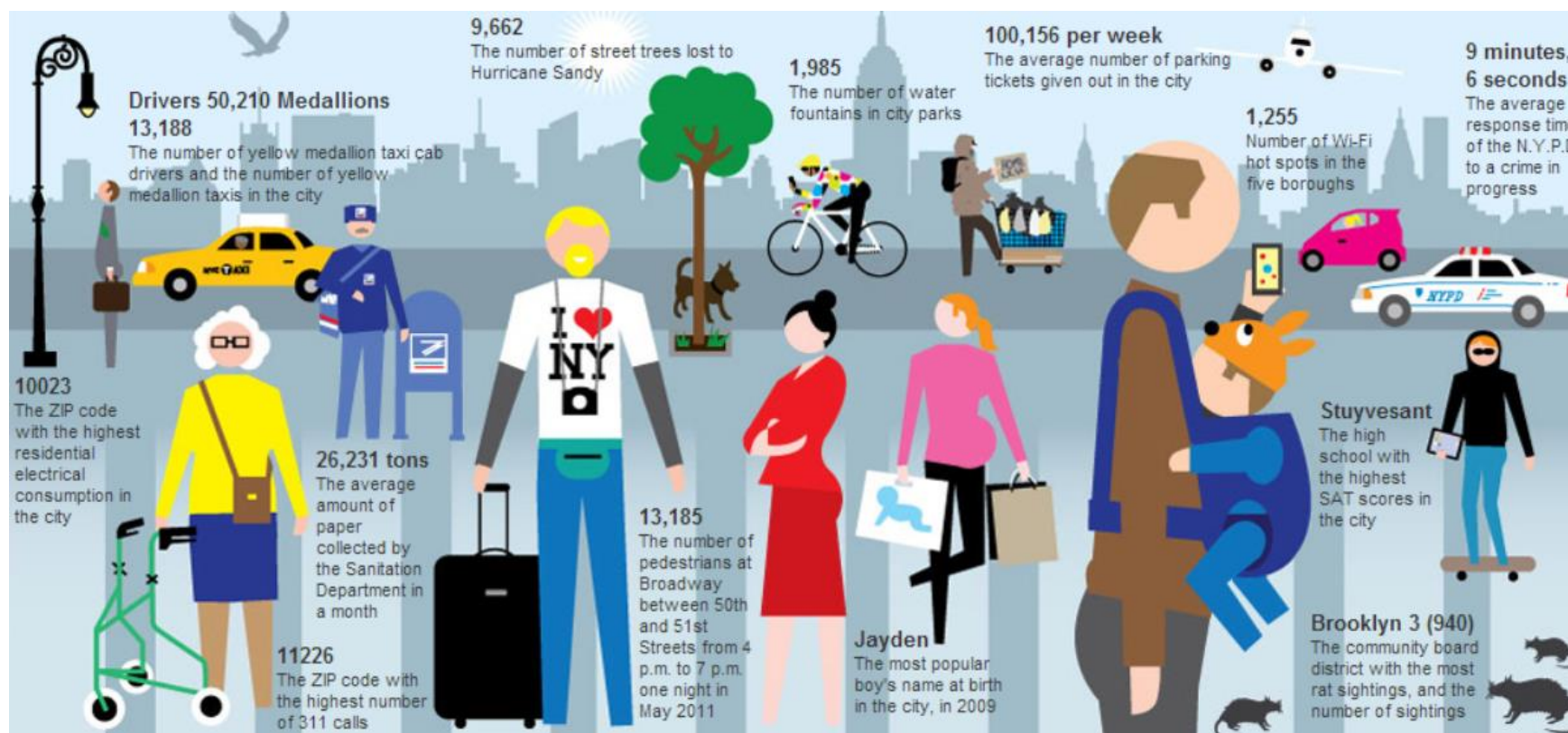
80% data growth
are images, video, documents…
Improve customer satisfaction

Conceptual Overview

Defining some key terminology

Data Analytics	Applying data science to uncover patterns embedded in datasets.

Taken from the New York Times, http://www.nytimes.com/2013/03/24/nyregion/mayor-bloombergs-geek-squad.html?pagewanted=all

Conceptual Overview

Defining some key terminology

Metadata	Data about data. Can refer to the how the data is structured or can refer to descriptions about what the data means.

Conceptual Overview

Defining some key terminology

Apps	Interactive software applications that draw on the data. The most common intermediary of raw data and the end-user. Can be web-based or mobile.

TRANSFORMS THIS…
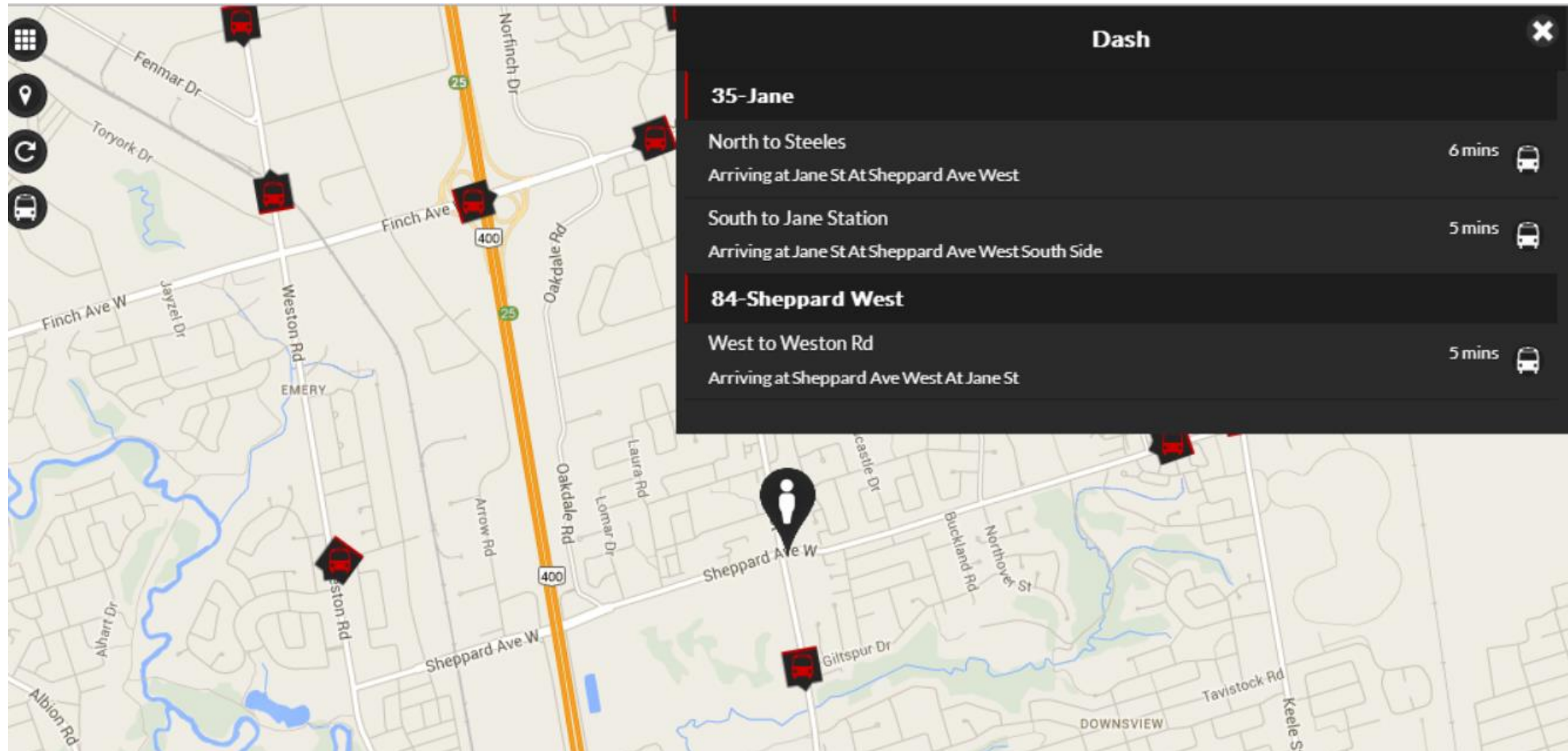
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Conceptual Overview

Into this (Local Motion web-based app)...

Conceptual Overview

Why now?

- Rapid technological changes that put pressures on governments to open up.

- It is long past the "tipping point" of acceptance.

- Unfolding as we speak. We still do not know what success looks like but many visions of it.

MOBILIZING TORONTO INGENUITY TO SOLVE TORONTO PROBLEMS

Soknacki will promote tech startup partnerships, expand Open Data

Conceptual Overview

Why Municipal Level of Government?

- Provincial legislation mandates municipalities to be open. There is openness built into the system.

- Fairly well developed routine disclosure plans.

- G4 – Toronto, Ottawa, Edmonton and Vancouver

Toronto's Journey – Open Data to Open Government?

Members of Council and Wards

Council Members

Ward profiles

Expenses

Salaries and Benefits

Constituency Services and Office Budget

Council General Expense Budget

Donations

Business Travel Expenses

Legal Expenses

Remuneration and Expense Reports

Policies

Meetings

"Open Data is the philosophy and practice of making information publicly available and accessible, without restrictions, for people to use"
-Former Mayor David Miller, 2 November 2009

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Toronto City Council and Committees
Meetings, Agendas and Minutes

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Toronto's Journey – Open Data to Open Government?

How Open Data been institutionalized?

- G4 – Toronto, Ottawa, Edmonton and Vancouver

- Launch of Open Data Portal

Toronto's Journey – Open Data to Open Government?

Toronto's Journey – Open Data to Open Government?

Information Management Framework…

Themes	Accountable Government	Accessible Government	Responsible Government	Trustworthy Government
Principles	**ACCOUNTABILITY** All employees are responsible for the proper management of information.	**OPENNESS** Information is open and accessible.	**LIFECYCLE** Information is managed through all stages of usefulness in coordination with business planning.	**TRUST & RELIABILITY** Information is current, accurate, relevant and easy to use.
Goals	Integrity and Privacy Protection	Your local government anytime, anywhere.	Managing Information is Everybody's Business	Improved customer service and civic participation

Legislation

Information Management Policies, Strategies & Standards

Enterprise Architecture & Technology

Toronto's Journey – Open Data to Open Government?

Open Data Policy…
Guiding Principles to Manage City Datasets

1	Completeness Datasets will be as complete as possible while complying with legislative obligations regarding the release of personal information, proprietary, or other confidential information.
2	Primacy Datasets will be primary source data with data collection methods documented.
3	Timeliness Datasets will be available to the public in a timely fashion to maintain the business value of the data.
4	Accessibility Datasets will be as accessible as possible, with accessibility defined as the ease with which information can be obtained.
5	Machine Readable Datasets will be machine readable so that the public can create applications that can use the data for new services, research, or analysis.
6	Non-discrimination Datasets are available to anyone, with no requirement for registration.
7	Non-proprietary No entity has exclusive control over the datasets.
8	Licence Free Datasets are not subject to any copyright, patent, trademark or trade secret regulation.
9	Long Term Preservation of Datasets Datasets made available online should remain online, with appropriate version-tracking and archiving over time where applicable and available.
10	Usage Costs Datasets are free-of-charge.

Toronto's Journey – Open Data to Open Government?

WellbeingToronto

"Wellbeing Toronto supports decision making and engages citizens and businesses in understanding the challenges and opportunities of creating and maintaining healthy neighbourhoods through an online, publicly accessible data portal and web tool about neighbourhoods."

Toronto's Journey – Open Data to Open Government?

- Open Government Committee.

- Open Government Partnership.

- Open Government by Design.

- City Manager awarded the open data project at the City Clerk's office and I & T division in 2011 in the Cross-Corporate Award.

Toronto's Journey – Open Data to Open Government?

- Opportunities for internal staff engagement through lunch n' learns, internal consultations and dedicated staff training courses.

- External staff engagement through hack-a-thons, conferences, "speed-data-ing" and talks.

- There is even an open data song…
(performed by Keith McDonald, City of Toronto I&T Open Data Lead).

Key Observations

- **Open data ≠ open government. Most stakeholders recognize this.**

- **The discourse is broadening and shifting. It now includes a wider audience rather than simply the data proficient.**

- **"Open Analysis." Interpreting data to make it more easily understandable. "It is the linking of open data with open tools that allows users to freely access and analyze data to suit their needs. (Low)**

- **Clarity in communications. Terminology is prone to mix-ups and is still poorly understood.**

Key Observations

- Institutionalizing culture change? A mix of a piecemeal and centralized approach.

- Intergovernmental Relations. Data-sharing agreements and provincial legislation.

- Is the low-hanging fruit fully exhausted? I think there is still some left...

Key Observations

- The value proposition of open data. For whom?

- There is a cost to providing data. There are resource constraints. Furthermore, there must be a balance between benefits and cost.

- How do we mobilize open data for the public good? Data is just one tool.

- Collaboration between the public sector and the community. The public sector provides the data. Should the community feed the value-added to the data back?

Key Observations

- Privacy? Always a concern but there are disclosure processes in place to balance between privacy and the public interest.

- The need for "translators" to be usable by the general public. App developers the main translators. Also builds on the increasing demand for "open analysis."

- Data provided by open data must be put into context. Raw data by itself may not tell an accurate story.

Concluding Thoughts

- We must be clear in our terminology, what they mean and how they relate to each other.

- The social questions and how open data can be used to solve them is where we can derive public value.

- We should aim to make data more accessible to accommodate the growing audience. "Open analysis" with open data is a useful way forward.

- We still do not really know what success looks like.

Thank You!

Discussion Questions

- How critical is it to get the audience to understand the concepts to advance the open data and open government agenda? Where does "open analysis" fit into this?

- What does success in open data and open government look like?

- Should open data and open government be a key political priority for the City of Toronto?

- Is the City of Toronto's current approach to positioning open data and open government the right approach?

- Is there still a value for charging for publicly owned data? Should there be business cases built into the process of releasing public data for open data?

- What are the roles and responsibilities of each party with respect to open data and open government?

- What is the next frontier in open data?