

The background of the slide is split diagonally from the top-left to the bottom-right. The upper-left portion is white, and the lower-right portion is a teal color with a repeating pattern of lighter teal circles. A solid teal vertical bar is positioned to the left of the title.

OPEN DATA

Marianne, Marie-Ève & Michael

DEFINITION FROM THE OPEN DATA HANDBOOK

“Open data is data that can be freely used, reused and redistributed by anyone - subject only, at most, to the requirement to attribute and share alike.”

MORE ON THE DEFINITION OF OPEN DATA

→ ***Available to access, analyze and inform***

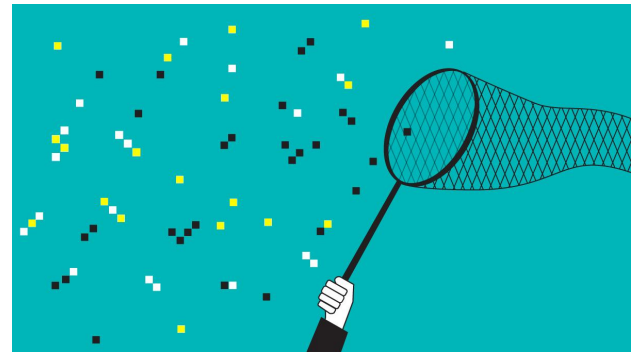
- We can use this data/info and learn from them together

→ ***Degree of openness***

- Open: Data sets may be made public and accessible to all users
- Restricted: access to Data sets is restricted to certain administrative units or partner organizations that are clearly identified.
- Closed: access to Data sets is limited to the administrative unit that is responsible for them.

→ ***Open Data is info gathered by...***

- Government
- Business
- Organizations



WHAT WE ALREADY KNOW OPEN DATA AS

→ ***Geospatial Data***

- Geographic coordinates (Google Maps)

→ ***Weather Data***

- The Weather Network
- OpenWeatherMap API

→ ***It Is NOT Open Data When...***

- it is only available for a fee/charge
- it has a copyright or patent refraining you to reuse the data

THREE COMMON REASONS WHY DATA IS OPEN

→ ***Transparency***

- Freely available and accessible data
- Able to use, reuse and redistribute the data

→ ***Participation & Engagement***

- We are more informed and involved in decision-making with open data
- Being able to know the data and also being able to contribute to it

→ ***Social & Commercial Value***

- Open data is essential for social and commercial activities
- Data/info can be managed to achieve social and economic benefits

→ ***Development***

- Allows developers to make projects based on open data
- Development through APIs

APPLICATION PROGRAMMING INTERFACES (APIs)



APPLICATION PROGRAMMING INTERFACES (APIs)

- ***APIs allow for the seamless exchange between the user and open data***
 - This allows for developers to create applications and tools to deliver open data that is important to the user
- ***APIs are treated like products more so than code***
 - APIs are designed for consumption by a specific audience
- ***Good APIs are usually thoroughly documented and continually maintained***
- ***Since APIs provide a direct connection to data, they usually:***
 - Contain one or several layers of security and authentication
 - Monitored and governed for performance and scale

TYPES OF APIS

- *Web Service APIs*
- *REST*
- *Class-based APIs (object oriented) - a special type of library-based API*
- *Library-based APIs*
- *SOAP (Simple Object Access Protocol)*
- *XML-RPC*
- *JSON-RPC*

THERE ARE MUCH MORE...

WEB SERVICE APIS

- ***Web service APIs allow us to use and retrieve data in online environments and projects on the web***
- ***Using a Web service API:***
 - Application sends an HTTP request to the web service
 - The web service then authenticates the request
 - If the request is accepted, the web service will send data back to the user/application
- ***Web service APIs usually store API information in the URL and/or as URL parameters***

`http://maps.googleapis.com/maps/api/staticmap?center=Sydney,NSW&zoom=14&size=400x400&sensor=false`

POPULAR/USEFUL WEB SERVICE APIs

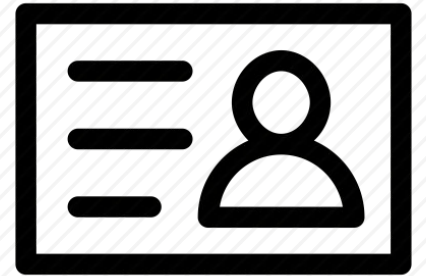
- *Facebook API*
- *Instagram API*
- *Google Maps API*
- *Pinterest API*
- *FlightStats API*
- *Skywatch API*

There are an infinite amount of APIs available to us online because of open data

WHAT TYPE OF "DATA" ARE WE TALKING ABOUT?

→ NON-PERSONAL DATA

Data that does not relate to an identified or identifiable individual



3 KEY RULES FOR OPEN DATA

→ ***“Keep it simple”***

- Start out small, simple and fast
- Your collections of data do not have to be open right away; one by one but fast

→ ***“Engage early and engage often”***

- Interact with real users and re-users

→ ***“Address common fears and misunderstandings”***

- Identify the most important questions and fears
- Address the most important questions and fears asap

HOW TO OPEN DATA

→ ***Choose your datasets (collections of data)***

- Quick process
- Identify which datasets can be made open
- Ask your online community for their interest in your dataset

→ ***Apply an open license (legal openness)***

- Important for open data

→ ***Make the data available***

- The open data should be machine-readable and as a complete set

→ ***Make it discoverable***

- Be sure that people can find it, ex: DataHub (catalog for datasets around the world)

WHAT DO YOU DO AFTER OPENING UP SOME DATA

→ ***TELL EVERYONE!!!***

- Encourage people to make use of your open data
- Understand your audience
- Third-party sites
- Make your communications more social-media friendly

MONTREAL'S OPEN DATA POLICY

→ ***Policy's objectives***

- Inform citizens of their rights regarding access to open data
- Inform its administrative units of their duty
- Provide the orientations and guiding principles that govern open data in the city

→ ***Orientations***

- Providing open access to the data it owns entails benefits from the standpoint of public administration transparency, democratic and social life, economic development, and organizational efficiency.
- The city undertakes to make data available online gradually and continuously in accordance with cost considerations, effort requirements, and available resources.
- The city undertakes to consult citizens and data users and take their needs into consideration when making data publicly accessible.
- The city undertakes to develop good practices and technologies designed to facilitate the sharing of data internally and with citizens and to ensure high-quality data.

MONTREAL'S OPEN DATA POLICY

→ *Guiding principles*

- Naturally, **Open by default**: all data collected or acquired by the city are considered to be open unless there is reason for restricting access, but also;
- Completeness;
- Primacy;
- Timeliness;
- Ease of Physical and Electronic Access;
- Machine readability;
- Non-discrimination;
- Use of Commonly-Owned Standards;
- Licensing;
- Permanence;
- Usage Costs;

MONTREAL'S OPEN DATA POLICY

→ *Data exceptions*

For Data sets whose Degree of openness is not Open, **justification must be provided.**

- Protection of privacy and personal information;
- Public safety and protection of property;
- Montréal does not hold intellectual property or the right to republish the data.
- Protection of third-party trade secrets;
- All relevant laws and regulations.*

*This policy and its principles are subject to the **Act Respecting Access to Documents Held by Public Bodies and the Protection of Personal Information**, CQLR c A-2.1.

Source <http://donnees.ville.montreal.qc.ca/portail/city-of-montreal-open-data-policy/>

OPEN DATA POTENTIAL

- **Mostly Untapped**
 - *Only a fraction has been opened*
- **New Perspectives**
 - *More Open Data opens our world up to be more technologically advanced*
- **Endless Possibilities**

