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Open Data – Resources for Teaching

Tara Stieglitz, MacEwan Library

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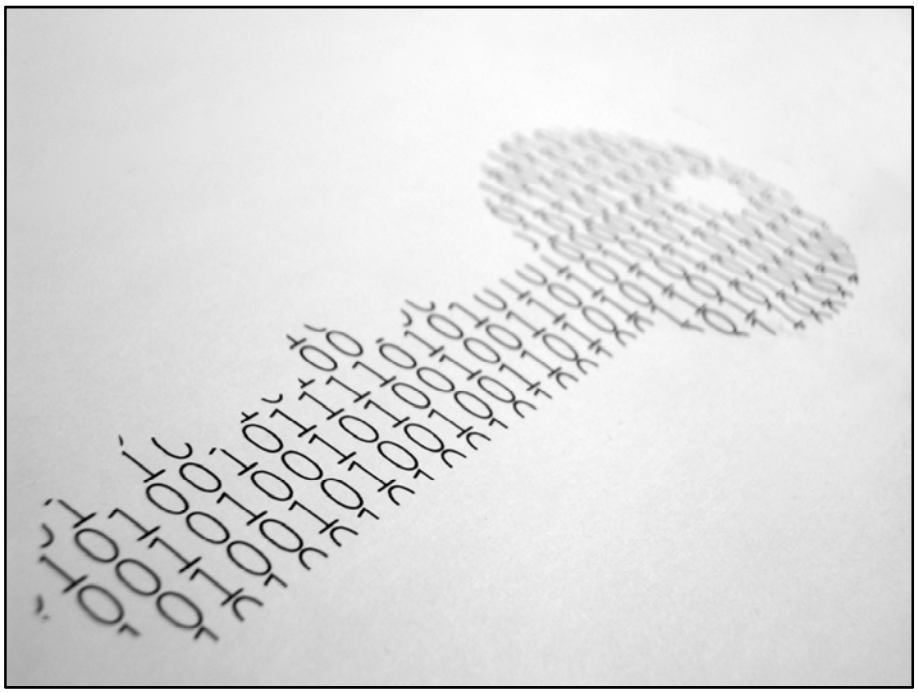
- Open data defined – open data is machine-readable data that can be freely used, reused, and redistributed by anyone. In the spirit of openness it should be provided in file types that are not propriety.

- Why is this such a big deal now? On June 18, 2013 G8 leaders signed and Open Data Charter, agreeing to a set of principles and best practices to lay the foundation for the release of government data before December 31, 2015.

- The charter lays out 5 principles

    1. Open Data by Default: Foster expectations that government data be published openly while continuing to safeguard privacy.
    2. Quality and Quantity: Release quality, timely, and well-described open data.
    3. Useable by All: Release as much data in as many open formats as possible.
    4. Releasing Data for Improved Governance: Share expertise and be transparent about data collection, standards, and publishing processes.
    5. Releasing Data for Innovation: Consult with users and empower future generations of innovators.

- Across Canada governments are creating open data catalogues.



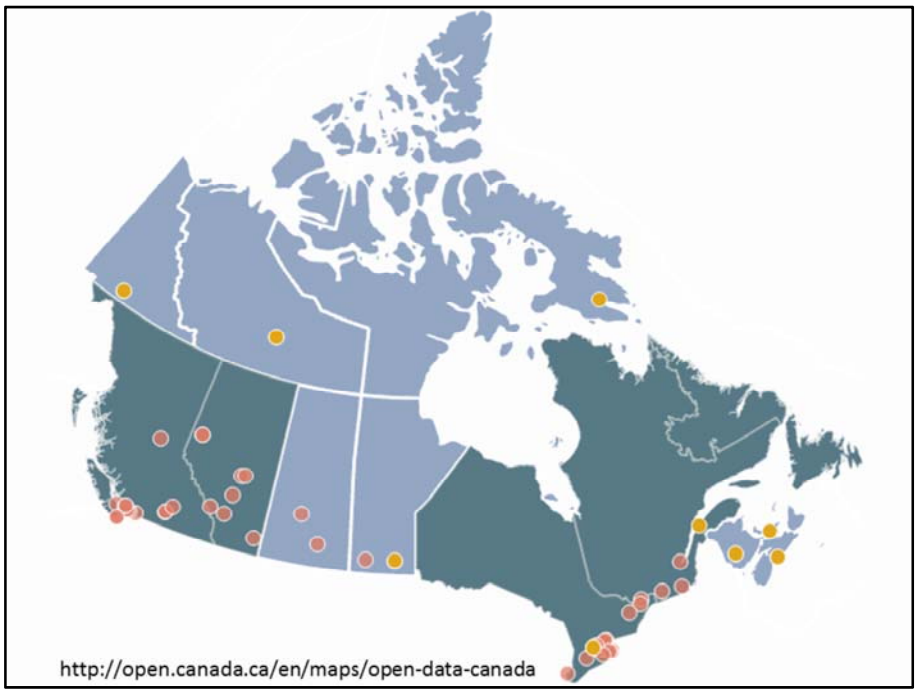
Data literacy

- ACRL Information Literacy Standards barely mention data -- Standard one mentions it, there is an outcome that states that an information literate student "Realizes that information may need to be constructed with raw data from primary sources"
- Data literacy encompasses many skills and competencies, including
    - Finding data sets
    - Evaluating their usefulness, do the data include the information you're looking for?
    - Manipulating and analyzing data
    - Interpreting data
    - Using data to solve problems, answers questions and communicate solutions.
    - Reading the documentation and metadata is key!
- Why is data literacy important?
    - Open data is a trend that is making large data sets increasingly available for anyone to use.
    - Data literacy skills are important for students to develop so that they are

able to use data in school and beyond.

How to use open data

- Open data isn't just for researchers and it doesn't need to be intimidating.
- It can be very useful, helping you answer questions that you wouldn't otherwise find information on.
- In fact, students may incidentally come across open data when looking for statistics on a topic. If you can't find statistics data is a good alternative if you have some rudimentary data analysis skills (able to calculate a mean).
- You can also point students to it because it contains very rich information from governments
- Large municipalities are making more data available. It can be a great source of local information for certain subject areas.
    - Ex. Traffic collisions or dangerous intersections.
- Using secondary data for their own research projects, this is common for students doing honours projects of other research projects in the social sciences especially.
- Statistics students can use open data to practice with

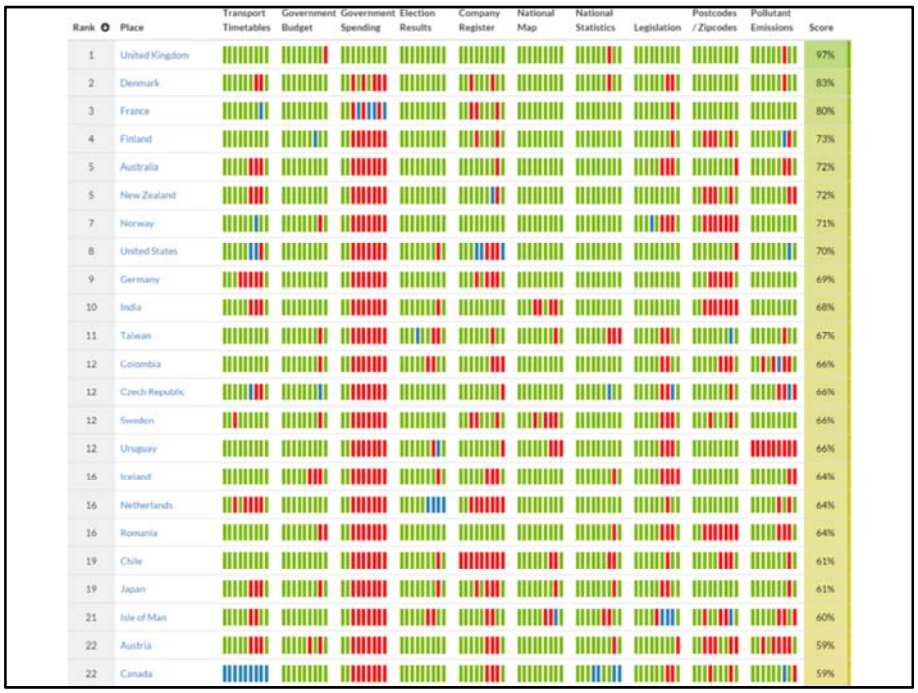


Where to find open data

Open data catalogues in Canada = map (dark blue = open provinces, pink dots = open municipalities, yellow dots = open initiatives – relate to a specific topic))

Also lists other resources and open government related events.

Canadian government open data catalogue http://open.canada.ca



Rank	Place	Transport Timetables	Government Budget	Government Spending	Election Results	Company Register	National Map	National Statistics	Legislation	Postcodes / Zipcodes	Pollutant Emissions	Score
1	United Kingdom											97%
2	Denmark											83%
3	France											80%
4	Finland											73%
5	Australia											72%
5	New Zealand											72%
7	Norway											71%
8	United States											70%
9	Germany											69%
10	India											68%
11	Taiwan											67%
12	Colombia											66%
12	Czech Republic											66%
12	Sweden											66%
12	Uruguay											66%
16	Iceland											64%
16	Netherlands											64%
16	Romania											64%
19	Chile											61%
19	Japan											61%
21	Isle of Man											60%
22	Austria											59%
22	Canada											59%

Countries around the world have open data, links can be found
http://index.okfn.org/
Worldwide = Global Open Data Index provides an overview of openness around the world and links to open data from other countries.

Canada ranks 22 out of 97 (59% open)

Ranking is based on 9 factors in a number of categories

- Does the data exist?
- Is it digital?
- Is it public?
- Is it free?
- Is it online?
- Is it machine readable?
- Is it available in bulk?
- Is it openly licensed?
- Is it up to date?

Depending on what you're looking for, it can be easier to find Canadian data here than on Canada's open government portal.