

# REPORT

**Title:** EPL's Approach to Open Data

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## Executive Summary

This report was created in response to two approved recommendations from the *Digital Public Spaces Trend-spotting Report*:

8.1 That the Digital Public Spaces Intern review open data policies at other libraries and municipal institutions, consult with the City of Edmonton, and develop a set of recommendations for the Executive that will inform the development of EPL's Open Data Policy

8.2 That the Digital Public Spaces Intern works with the Data Team to investigate what EPL information is available and options for sharing it from epl.ca. They also contact the City of Edmonton to determine which library data to share in which formats via the Edmonton's Open Government Catalogue

These recommendations themselves stem from the 2014-2016 Business Plan action to "Develop an Open Data policy that includes how we will use and share our own data, participate in Edmonton's Open Data community and support data literacy initiatives." Based on this action, this report assumes that EPL intends to share more of our data and refers to our efforts to share our data as our open data initiative.

Research found that the City of Edmonton (CoE) is a national leader in the open data movement with a well-established open data catalogue. Many libraries around Canada and the United States have shared data, including catalogue, circulation and service usage information, with their local data catalogues, providing examples to inform EPL's efforts.

This report reviews relevant political context, trends in the provision of open data by public libraries in Canada and the US, and the responsibilities associated with sharing open data, in order to meaningfully inform the development of EPL's open data initiative.

**Spread the words.**

## Recommendations

1. That EPL create an open data statement that recognizes the principles of the G8 Open Data Charter.
2. That all open data shared by EPL should be shared through the CoE open data catalogue, which means complying with the City's Memorandum of Understanding, Open Government Licence and standard data formats.
3. That the Data Team be responsible for:
  - a. collaborating with the CoE to establish workflows to support the regular provision of data to the city catalogue as per the CoE MOU;
  - b. determining which datasets to prioritize sharing based on the considerations listed in the Open Knowledge Foundation's *Open Data Handbook*;
  - c. balancing the privacy concerns of the library with the public benefit of providing open data when determining which data to share; and
  - d. reviewing requests for library data received via the CoE from interested citizens.
4. That EPL's own open data page includes our statement on open data and a link to the library data available on the CoE open data catalogue.

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## Definitions

**Dataset** – “means a collection of raw, non-manipulated data usually presented in tabular form with associated metadata, and which is machine readable.

*What is a raw dataset:* a structured file format (including geospatial formats) that can be read by a machine, such as spreadsheets, comma delimited, Extensible Markup Language (XML), or JavaScript Object Notation (JSON)

*What is not a raw dataset:* a report, a flyer, some web applications, a PDF document, anything that cannot be exported or used by a machine.”<sup>1</sup>

**Library Data** – In this report, this term refers to datasets (or a dataset) about a library made available by a library in an open format.

**Open Data** - A piece of data or content is open if anyone is free to use, reuse, and redistribute it — subject only, at most, to the requirement to attribute and/or share-alike.<sup>2</sup>

## Abbreviations

API – Application Programming Interface  
 BPL – Brooklyn Public Library  
 CLA – Canadian Library Association  
 CoE – City of Edmonton  
 CSV – Comma-separated Values  
 DPLA – Digital Public Library of America  
 JSON - JavaScript Object Notation  
 MOU – Memorandum of Understanding  
 NYPL – New York Public Library  
 OKF – Open Knowledge Foundation  
 RDF - Resource Description Framework  
 RSS – Rich Site Summary  
 TPL – Toronto Public Library  
 UTB – Utah Transparency Board  
 VPL – Vancouver Public Library  
 XLS – Default Excel file format  
 XLSX – Default Excel file format (newer)  
 XML – Extensible Markup Language

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<sup>1</sup> Definition taken from the City of Toronto Open Data Policy

<sup>2</sup> Summary definition provided by the Open Knowledge Foundation. The extended definition is included in [Appendix A](#).

## Introduction

The initial purpose of this report was to inform the development of an Open Data Policy at EPL; however, of the public libraries sharing open data, those that replied to inquiries did not have internal data policies.<sup>3</sup> This raised the question of whether a formal policy was required to move forward with our open data initiative. According to the *Open Data Field Guide*, developed by open data platform provider Socrata, there are three functions of a strong open data policy:

- Establishing the goals of your open data initiative
- Identifying which datasets you will share
- Designating the roles of specific stakeholders within your open data program

While performing these three actions is fundamental to any open data initiative, developing an official open data policy to initially establish them is not a necessary first step. This report and its recommendations outline how to best complete these actions.

This report is organized according to these three actions. The first section, [Establishing Goals](#), outlines the political and theoretical context of the open data movement in order to meaningfully frame an open data initiative at EPL. Asserting our commitment to the widely accepted G8 Open Data Charter in a public statement would establish to internal and external stakeholders that the goals of EPL's open data initiative are consistent with the City of Edmonton's Open Government goals<sup>4</sup> and those of the international open data movement.

The second section, [Choosing Datasets](#), reviews recommended procedures for selecting datasets to share and provides the results of a survey of library open data shared across Canada and the US. Among other things, this survey determined that it is consistent with current trends to share our data entirely on the city open data catalogue.

The third section, [Roles & Responsibilities](#), elaborates on the responsibilities of contributors to the CoE open data catalogue and identifies EPL's Data Team as a team qualified to administer the library's open data initiative.

The fourth section, [Licences](#), reviews the standard open data terms of use licence developed and used in Canada, including the licence applicable to all data on the CoE's open data catalogue.

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<sup>3</sup> These include Vancouver Public Library (VPL), Brooklyn Public Library (BPL) and Austin Public Library. Jesse Montero, Coordinator of Information Services and Public Training at BPL, mentioned that they are in the process of developing a policy for their board's approval.

<sup>4</sup> In personal correspondence, Janelle Robb, Strategic Coordinator for the CoE's IT branch explained that the CoE Open Government Licence is based on the G8 Open Data Charter.

## I. Establishing Goals

Socrata's *Field Guide* recommends "aligning your open data strategy with the big picture opportunity for government: to improve performance, meet citizen expectations, and drive innovation" as well as aligning your open data goals with your existing mission.

### International Context

The open data movement is quickly growing and has no single leader. On an international level, the cause is advocated for by non-profits The Open Knowledge Foundation (OKF) and the Open Data Institute as well as the multilateral Open Government Partnership. The OKF provides three primary reasons that data should be open: 1) to increase government transparency 2) to release the social and commercial value of the data and 3) to increase participation and engagement in government. The United Kingdom and the United States are government leaders in the movement.

On June 18, 2013, Canada signed the G8 Open Data Charter, which sets out 5 strategic principles that the G8 countries are committed to acting on:

- Open Data by Default
- Quality and Quantity
- Usable by All
- Releasing Data for Improved Governance
- Releasing Data for Innovation

The full text of the charter, which usefully elaborates on these points, is provided in [Appendix B](#).

International Open Data Day began in 2010 on the initiative of, among others, influential Canadian open data advocates David Eaves, Edward Ocampo-Gooding and Mary Beth Baker. The event has grown every year since, and in 2014 there were 194 events held around the world in 47 different countries, including 9 events in Canada.

### National Context

Canada launched its Open Government strategy in 2011 and published *Canada's Action Plan on Open Government* in 2012.<sup>5</sup> The strategy's current leader is the President of the Treasury Board, the Hon. Tony Clement. Federal data is shared on the [data.gc.ca](http://data.gc.ca) website. The Federal Open Government Licence, which defines the terms under which government data can be used, forms the model for provincial and municipal data licences, including Edmonton's.

### Provincial Context

Alberta's Open Data Portal, launched in May 2013, is a project of Service Alberta and is led by Mark Diner, Chief Advisor for Open Government.<sup>6</sup> Alberta's data portal does not share library data at this time; however, in British Columbia the Ministry of Education

<sup>5</sup> The full text of the Action Plan is available at <http://data.gc.ca/eng/canadas-action-plan-open-government>

<sup>6</sup> The Portal is available at [data.alberta.ca](http://data.alberta.ca).

has shared extensive statistics on the circulation, registration, collection and programs of all the library systems in the province from 2002 through 2012.<sup>7</sup>

### **Municipal Context**

In 2010, Edmonton, along with Vancouver, Toronto and Ottawa, started the “G4”: a group of cities working on developing a national data strategy. Since then, Edmonton has been a leader within Canada on providing municipal open data and promoting open government.

### **Catalogue and Dashboard**

The city’s first data catalogue was operational in early 2010 and the second and most recent version of the catalogue launched in 2011. Currently, the catalogue shares 415 datasets.<sup>8</sup> In 2012, the city launched the Citizen Dashboard<sup>9</sup> “a tool that displays performance results for a variety of different City services” relating to four of the CoE’s six strategic plans, The Way We Move, Live, Green and Grow.

The CoE’s data catalogue and the citizen dashboard are powered by The Socrata Open Data Platform™ and Socrata GovStat, respectively. Socrata products power the data catalogues of many large cities, including New York, Chicago, Austin and Halifax. Socrata’s data platform has embedded data manipulation tools that make it easier for citizens to engage with and understand the available data.

### **Engaging the Community**

In 2010, Edmonton held Canada’s first ever Open Data Competition, Apps4Edmonton. In total, 86 app ideas and 36 completed apps were submitted and over \$50,000 in prizes were awarded. In 2014, the CoE and EPL co-hosted Edmonton’s first ever International Open Data Day Hackathon and an information session for beginners. The events drew 30 participants each and a great deal of interest from local media and open data enthusiasts.

### **EPL’s Existing Relationship with City Open Government**

EPL has one dataset on the City data catalogue, which contains the locations of each of our branches. The dataset was created July 6, 2011, and it has been downloaded 888 times, which averages to ~29 times a month.<sup>10</sup> We do not have more detailed analytics. EPL is referred to in a number of other datasets in the catalogue, the full list of which is available in [Appendix D](#).

On December 4, 2013, City Council unanimously carried a motion presented by Council members Andrew Knack and Mike Nickel “That Administration provide a report to

<sup>7</sup> This dataset is available at <http://www.data.gov.bc.ca/dbc/catalogue/detail.page?config=dbc&P110=recorduid:178444&recorduid=178444&title=BC%20Public%20Libraries%20Statistics,%202002-2012>

<sup>8</sup> The City of Edmonton’s data catalogue is available at <http://data.edmonton.ca>

<sup>9</sup> The Citizen Dashboard is hosted at <https://dashboard.edmonton.ca/>

<sup>10</sup> As of 25 February, 2014

Committee, outlining the plan and timeline for having the City's Budget books placed in the Open Data Catalogue" (Edmonton City Council). The due date for this report is listed as March 4, 2014. On Twitter, Councilman Knack wrote that he hopes the data will be made available by May 2014 and that in the following year, the data will be expected earlier. EPL is implicated in this motion and can expect to be required to make our budget books available in machine-readable formats in 2014.

The CoE has put together their Open Data Toolkit to assist other municipalities in developing their own open data initiatives. The toolkit provides detailed information on the relationship between the CoE and the city business units that provide data, including a copy of the Memorandum of Understanding (MOU) to be signed when a city business unit provides data to the catalogue. The MOU outlines the responsibilities of city data providers and so independently establishes the third element of an open data policy "Designating the roles of specific stakeholders within your open data program." EPL has not yet signed the MOU. For a more detailed discussion of the MOU, see [Section III. Roles and Responsibilities](#); for the full text of the MOU see [Appendix E](#).

The toolkit also contains the Open Data Service Support Agreement,<sup>11</sup> which provides further details about the roles and responsibilities of participants, outlines the business process associated with the open data catalogue, the technology architecture of the service, as well as incident reporting and escalation procedures.

## Organizational Context

EPL's 2014-2016 business plan includes an action that explicitly mandates the participation in the growing open data community. The International Open Data Day hackathon and information session were an effort towards fulfilling part of this mandate. A post-event survey will be used to assess the event and gather feedback from the open data community on which library datasets they would be most interested in seeing released.

Though EPL does not have existing policies that address sharing internal organizational data, many existing policies express values and goals consistent with the open data movement. Relevant documents include EPL's mission, "we share," as well as the library's Collection Development (C-3), Intellectual Freedom (I-2) and Privacy and Confidentiality of Customer Information (P-19) policies.

EPL's Board Policy on Collection Development states that EPL's collection will "Meet the information needs of the public ... stimulate participation in the affairs of the community, the country and the world [and] recognize and accommodate a range of education levels and abilities ..." among other goals. In light of the open government movement and the impact it has had on the ways governments share information from

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<sup>11</sup> The Open Data Service Support Agreement is available on the Toolkit site: [http://www.edmonton.ca/city\\_government/initiatives\\_innovation/open-data-toolkit.aspx](http://www.edmonton.ca/city_government/initiatives_innovation/open-data-toolkit.aspx)

the federal to the municipal level, government open data is increasingly considered an information need of the public. Thus library data could be understood as falling under the purview of the collection policy.

By taking part in this movement and providing citizens with a new way to engage with the library, making library data openly accessible stimulates participation in the affairs of the community, particularly when paired with library open data events, such as hackathons. Providing open data also acknowledges an increasingly popular and important method of accessing and utilizing knowledge. The knowledge required to creatively use and reuse raw data is held by an increasing number of Edmontonians and providing library data acknowledges their education levels and abilities as library customers.

The Intellectual Freedom Policy states that EPL endorses the Canadian Library Association's Statement on Intellectual Freedom (1985). The CLA's statement could not have been written with open data in mind, but the values it espouses are an obvious precursor to today's open government movement. The policy states that:

It is the responsibility of libraries to guarantee and facilitate access to all expressions of knowledge and intellectual activity, including those which some elements of society may consider to be unconventional, unpopular or unacceptable. To this end, libraries shall acquire and make available the widest variety of materials.

The data produced by the library itself is an example of knowledge and intellectual activity, and following this policy it is the responsibility of the library to guarantee and facilitate access to it.

The library's Privacy and Confidentiality of Customer Information Policy asserts EPL's commitment to protecting customers' personal information in accordance with the Freedom of Information and Protection of Privacy Act – Alberta (FIPPA). The library's privacy policy is consistent with the CoE's open government licence, which explicitly denies the user the right to access or use "personal information" as defined in section 1(n) of the FIPPA.

## Benefits to the Library

Open data can be understood as another medium for achieving the business plan action to "share EPL-developed successes, solutions and research." Though, providing open data is more than just sharing - it is like an open request for engagement or collaboration. A simple example of open data is the provision of library opening hours in a machine-readable format.<sup>12</sup> With a CVS file (a spreadsheet) of library opening hours a data user could easily aggregate the opening hours of all public buildings; with an API of the library opening hours a data user could integrate that data into their own app or tool, significantly expanding the reach and awareness of our service data beyond the promotional actions EPL takes itself.. Technology blogger Tom Slee (2012, May 8)

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<sup>12</sup> EPL shares our opening hours on a dataset on our own website, but not on the city data catalogue.

identifies four categories of open data users: civic hackers, civil liberties activists, data journalists and the public sector data reuse industry. These four categories of user are the potential audience of EPL's open data and our potential collaborators.

### **Civic Hacking**

In Slee's construction, "civic hackers" is a short-hand for data users with a non-commercial interest in public service delivery. In EPL's context, civic hackers could include students and LIS academics, the professional librarian community, community organizations and independent civic-minded hackers locally and around the world as well as other CoE business units. Sharing data with these users could potentially support research, advocacy, the improvement of public services, the expansion of existing collaborations and outreach activities.

Civic hacking, in general, is app and software development done for fun or out of a sense of civic duty (or both!) to improve the functioning of government services, or improve the quality of life for citizens. See the *Digital Public Spaces Trend-spotting Report: Detailed Trends*, section 8, for examples of libraries working with this community to develop projects and host events.

### **Innovation and Creativity**

The public sector data reuse industry refers to private companies, large and small, that are able to use public data to turn a profit. An interesting subgroup of user in this category is the digital media artist. The *Digital Public Spaces Trend-spotting Report: Detailed Trends* includes descriptions of creative visualizations of library data that brought publicity and prestige upon the library providing the data.

### **Media Resource**

Open data catalogues are also a useful resource for the media and raw data can provide the foundation for a wide variety of publications. A positive example comes from Chicago, whose WBEZ radio ran some of Chicago Public Library's circulation and service usage data and reported that "the data does indicate the Chicago's libraries are not just well used, they're booming from computer use, eBook checkouts and more [sic]" (2013, June 11, Ramos). Any library data set could inform or inspire publicity for the library.

### **Positive Public Perception**

Making data available also reflects positively on public institutions that provide it. Sharing open data reveals the institution to be transparent in their practices and confident in their operations. Likewise, institutions that do not share are subject to criticism. In 2012, Eaves criticized VPL on his blog for failing to release catalogue information (January 16). Though the formality of an official policy is not necessary to work with the city on open data, a publicly available statement of our support for the open data movement would establish to internal and external stakeholders that the goals of EPL's open data initiative are consistent with the City of Edmonton's Open Government goals and those of the international open data movement.

## Critiques & Potential Risks

In a recent blog post, Eaves acknowledges critiques of the open data movement that he finds to be the most substantial. These include the concern that providing open data only benefits people and companies that are already empowered to make use of the data and that open data can and is being used for particular political reasons, specifically privatising public services and subsidising private industry. Eaves' solution to the first critique is to support data literacy, which EPL has committed to doing in our business plan.

### Political Bias and Privatization

There are currently no publicized examples of libraries facing de-funding or privatization as a result of providing open data; however, critiquing the efficiency of public institutions is one of the stated goals of the movement, so it would be prudent for EPL to anticipate and prepare for such a critique.

The government open data licence developed by the federal government and adopted by the CoE does not limit private industry's right to profit from open government data. There are no publicized examples of private companies profiting from library open data, but any data shared on this licence has the potential to be adapted for private purposes by the library's competitors. Although we discourage copyright infringement and theft of materials, the library does not and has never limited customers' abilities to profit from the information contained in the collection we provide.

## II. Choosing Datasets

To simplify the process of determining which datasets to share, Socrata recommends the "open by default" mandate, which is championed in the G8 Charter. The Charter asserts:

**We will establish an expectation that all government data be published openly by default** ... while recognising that there are legitimate reasons why some data cannot be released (source's emphasis).

This ambitious policy would be quite challenging to initiate all at once, as such it necessary to have a method for prioritizing datasets to release. The OKF's *Open Data Handbook* outlines five points to consider when selecting data to share:

1. Privacy
2. Community priorities
3. Cost
4. Ease of release
5. Peer choices

The Sunlight Foundation's *Open Data Policy Guidelines*<sup>13</sup> recommend adopting the language of the Utah Transparency Board (UTB) when determining which data to share. The UTB are responsible for “balancing factors in favor of excluding public information from an information website against the public interest in having the information accessible on an information website.”

## Library Datasets

To identify trends in library data provision, 38 cities and their data catalogues were reviewed. The review considered 19 Canadian cities, including the national and provincial capitals as well as other large urban centres, and 19 American urban centres that were identified by the US Federal Data Portal as providers of local open data. In total, 60% (n=23) of these cities host library data on their data catalogues. There were 10 distinct types of library data shared on city catalogues, as shown in Figure 1. The most common type of data shared was branch locations, which was shared by 78% (n=18) of reviewed libraries. 30% (n=7) of libraries shared only one type of data on their city catalogue, including EPL.

Public libraries are more likely to share their data through city catalogues rather than through their own sites. Of the libraries reviewed that share their data, only 4 provide library data on both their own website and on city data catalogues.<sup>14</sup> Benefits to sharing data through a city catalogue exclusively include receiving free expert IT and administrative support for the initiative, outsourcing responsibility and expenses for promotion and keeping the data catalogue infrastructure up to date, and increasing the accessibility of datasets by placing them in a centralized repository. EPL should take advantage of these benefits by sharing our data exclusively through the CoE open data catalogue.

See [Appendix F](#) for a detailed list of the specific datasets and data formats provided by Canadian and American public libraries as well as links to these datasets.

### Catalogue Data

Of the six libraries that provide catalogue data, only three provide their catalogue in its entirety with detailed metadata: Montreal, Quebec City and Brooklyn. In an interview, Librarian Jesse Montero at BPL explained that they provided catalogue data to the city because the city specifically requested it. The library's lawyers agreed that the catalogue metadata fell within fair use law and they were free to make it publicly available for reuse.

<sup>13</sup> The Sunlight Foundation is an American nonpartisan non-profit that has been advocating for greater transparency in government since 2006. Their *Open Data Policy Guidelines* is a “living document” that includes 32 recommendations as of January 8, 2014.

<sup>14</sup> These libraries include VPL, EPL, Toronto (TPL) and New York Public Library (NYPL). TPL shares branch locations and VPL shares detailed circulation and service usage statistics from every year dating back to 2003. NYPL shares catalogue data as described below.

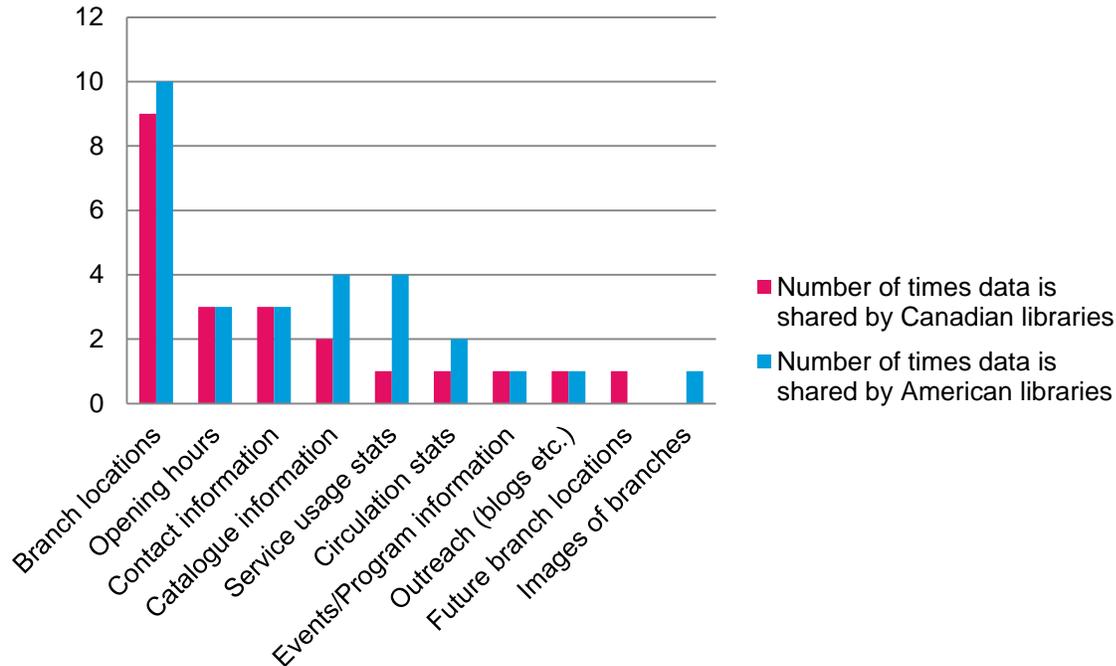


Figure 1. Types of library data shared on city open data catalogues

The provision of some form of catalogue data is a notable trend. Chicago Public Library provides lists of the most popular fiction and non-fiction titles across their system from the previous month. The Free Library of Philadelphia provides access to digital collections and Santa Cruz Public Library provides their “Catalog Web Search Interface” in XML. NYPL Labs provides an API to the metadata and transcribed content of their digitized menu collection and performs regular spreadsheet exports. The Digital Public Library of America (DPLA) provides an API to their collection as well as support and promotion for developers who use their data. By providing this data, these libraries make it possible for developers to create innovative new ways of engaging the catalogue and its content. For examples, see the DPLA’s app page: <http://dp.la/apps>

### Data Formats

Providing data in truly open formats is an integral part of the definition of “open data.” On the CoE’s data catalogue, “every dataset is automatically provided with a simple API” (Socrata, n.d.). This API supports a number of different data formats, specifically JSON, XML, CSV, and RDF. Socrata also consistently makes data available as PDF, XLS and XLSX files as well as through RSS feeds.

Socrata’s existing standards make the library’s choice of which data formats to provide to the CoE catalogue quite simple.

### III. Roles & Responsibilities

#### Memorandum of Understanding

The CoE's MOU establishes the responsibilities of the participating institution and the City IT branch; see [Appendix E](#) for the full text of the MOU. By signing the MOU, EPL would take responsibility for providing digital data in an agreed upon machine-readable format, generating datasets, working with the City Open Data Team to create metadata for each dataset, following incident resolution procedures established by the city, and keeping the datasets current. The agreement has no expiration date, a 10-business day advanced notice must be provided to the City Open Data Team in order to terminate the agreement, and the agreement would not preclude EPL from publicly sharing our data through other means. EPL would agree to administer the agreement or delegate representatives to administer the agreement on behalf of the institution.

#### G8 Open Data Charter

The G8 Open Data Charter includes commitments tied to actions. By recognizing the principles of the G8 Charter EPL would be recognizing our responsibility work towards sharing all of our data by default, “while recognising that there are legitimate reasons why some data cannot be released.” The charter asserts that released open data should be high-quality, timely, comprehensive, accurate, provided in plain clear language with thorough metadata, and available in formats readable by both machines and people. Additionally, Charter signatories accept responsibility for sharing their technical expertise and experience with other governments and organizations, documenting their open data standards and publishing practices online in the interest of transparency, working to increase open data literacy and encouraging people to unlock the value of open data.

#### EPL's Data Team

EPL's Data Team is chaired by the Manager, Research and Assessment and includes the Manager, Information Technology, Manager, Collection Management and Access, and the Administrative Assistant, Stanley A. Milner Library. This team is responsible for, among other things, identifying, collecting and reporting on data as well as determining how to efficiently share datasets to meet the identified needs of internal stakeholders and “professional groups.” Many team members already have the skills and authority required to take on the responsibilities established by the MOU and the G8 Charter, and as such, this report recommends that this team take on the responsibility for the open data initiative.

### IV. Licences

Open Data Licences, also referred to as Terms of Use, establish the terms and conditions under which a dataset may be used. The development of the Federal Open Government Licence has been controversial over the last few years, but the licence's most recent incarnation has largely satisfied critics and has begun to influence the

development of data licences across the country. In fact, both Alberta's<sup>15</sup> and Edmonton's<sup>16</sup> Open Government Licences are almost identical to the federal licence in all but a few sections that are adapted to local laws. This similarity is considered practical because it makes it easier to integrate and compare datasets from different levels of government.

### Standard Licence Summary

The content of this common licence can be summarized as follows: use of the dataset is freely available to anyone. A dataset user is given a “worldwide, royalty-free, perpetual, non-exclusive licence to use the Information, including for commercial purposes.” With this right they can “Copy, modify, publish, translate, adapt, distribute or otherwise use the Information in any medium, mode or format for any lawful purpose.” Use of the data must be attributed to its source or identified as subject to the terms of the licence. The data provider does not guarantee the accuracy of the data or endorse any particular usage of the data. The licence respects relevant privacy laws.

### Library Open Data Licenses

As in Alberta, British Columbia's Open Government Licence<sup>17</sup> is an adaptation of the federal licence, and the City of Vancouver's licence<sup>18</sup> is an adaptation of the provincial licence. VPL is the only library found to have published its own open data licence and it is entirely consistent with the City of Vancouver's licence.<sup>19</sup>

Currently, EPL hosts a small amount of our own data on our open data page: [www.epl.ca/opendata](http://www.epl.ca/opendata). This data is provided without a licence. Although a Creative Commons 0 licence is currently attributed to EPL's data on the CoE data catalogue, the data is in fact subject to the CoE's Open Government licence. Any additional data EPL shares through the city catalogue will also be subject to this licence.

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<sup>15</sup> The Open Government Licence – Alberta is available at <http://data.alberta.ca/licence>

<sup>16</sup> The Open Government Licence – Edmonton is available in [Appendix C](#)

<sup>17</sup> The Open Government Licence – BC is available at <http://www.data.gov.bc.ca/local/dbc/docs/license/OGL-vbc2.0.pdf>

<sup>18</sup> The Open Government Licence – Vancouver is available at <http://vancouver.ca/your-government/open-data-catalogue.aspx>

<sup>19</sup> The VPL Data Terms of Use are available at [https://www.vpl.ca/opendata/terms\\_of\\_use/](https://www.vpl.ca/opendata/terms_of_use/)

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## Appendix A - Extended Open Definition – Version 1.1

### Terminology

The term **knowledge** is taken to include:

1. Content such as music, films, books
2. Data be it scientific, historical, geographic or otherwise
3. Government and other administrative information

Software is excluded despite its obvious centrality because it is already adequately addressed by previous work.

The term **work** will be used to denote the item or piece of knowledge which is being transferred.

The term **package** may also be used to denote a collection of works. Of course such a package may be considered a work in itself.

The term **license** refers to the legal license under which the work is made available. Where no license has been made this should be interpreted as referring to the resulting default legal conditions under which the work is available (for example copyright).

The Definition<sup>20</sup>

A work is open if its manner of distribution satisfies the following conditions:

#### 1. Access

The work shall be available as a whole and at no more than a reasonable reproduction cost, preferably downloading via the Internet without charge. The work must also be available in a convenient and modifiable form.

#### 2. Redistribution

The license shall not restrict any party from selling or giving away the work either on its own or as part of a package made from works from many different sources. The license shall not require a royalty or other fee for such sale or distribution.

#### 3. Reuse

The license must allow for modifications and derivative works and must allow them to be distributed under the terms of the original work.

#### 4. Absence of Technological Restriction

The work must be provided in such a form that there are no technological obstacles to the performance of the above activities. This can be achieved by the provision of the

<sup>20</sup> Annotations have been removed from this definition, but are available online at <http://opendefinition.org/od/>

work in an open data format, i.e. one whose specification is publicly and freely available and which places no restrictions monetary or otherwise upon its use.

#### 5. Attribution

The license may require as a condition for redistribution and re-use the attribution of the contributors and creators to the work. If this condition is imposed it must not be onerous. For example if attribution is required a list of those requiring attribution should accompany the work.

#### 6. Integrity

The license may require as a condition for the work being distributed in modified form that the resulting work carry a different name or version number from the original work.

#### 7. No Discrimination Against Persons or Groups

The license must not discriminate against any person or group of persons.

#### 8. No Discrimination Against Fields of Endeavor

The license must not restrict anyone from making use of the work in a specific field of endeavor. For example, it may not restrict the work from being used in a business, or from being used for genetic research.

#### 9. Distribution of License

The rights attached to the work must apply to all to whom it is redistributed without the need for execution of an additional license by those parties.

#### 10. License Must Not Be Specific to a Package

The rights attached to the work must not depend on the work being part of a particular package. If the work is extracted from that package and used or distributed within the terms of the work's license, all parties to whom the work is redistributed should have the same rights as those that are granted in conjunction with the original package.

#### 11. License Must Not Restrict the Distribution of Other Works

The license must not place restrictions on other works that are distributed along with the licensed work. For example, the license must not insist that all other works distributed on the same medium are open.

## Appendix B – G8 Open Data Charter

1. The world is witnessing the growth of a global movement facilitated by technology and social media and fuelled by information – one that contains enormous potential to create more accountable, efficient, responsive, and effective governments and businesses, and to spur economic growth.
2. **Open data sit at the heart of this global movement.**
3. Access to data allows individuals and organisations to develop new insights and innovations that can improve the lives of others and help to improve the flow of information within and between countries. While governments and businesses collect a wide range of data, they do not always share these data in ways that are easily discoverable, useable, or understandable by the public.
4. **This is a missed opportunity.**
5. Today, people expect to be able to access information and services electronically when and how they want. Increasingly, this is true of government data as well. We have arrived at a tipping point, heralding a new era in which people can use open data to generate insights, ideas, and services to create a better world for all.
6. Open data can increase transparency about what government and business are doing. Open data also increase awareness about how countries' natural resources are used, how extractives revenues are spent, and how land is transacted and managed. All of which promotes accountability and good governance, enhances public debate, and helps to combat corruption. Transparent data on G8 development assistance are also essential for accountability.
7. Providing access to government data can empower individuals, the media, civil society, and business to fuel better outcomes in public services such as health, education, public safety, environmental protection, and governance. Open data can do this by:
  - showing how and where public money is spent, providing strong incentives for that money to be used most effectively;
  - enabling people to make better informed choices about the services they receive and the standards they should expect.
8. Freely-available government data can be used in innovative ways to create useful tools and products that help people navigate modern life more easily. Used in this way, open data are a catalyst for innovation in the private sector, supporting the creation of new markets, businesses, and jobs. Beyond government, these benefits can multiply as more businesses adopt open data practices modelled by government and share their own data with the public.
9. We, the G8, agree that open data are an untapped resource with huge potential to encourage the building of stronger, more interconnected societies that better meet the needs of our citizens and allow innovation and prosperity to flourish.
10. We therefore agree to follow a set of **principles** that will be the foundation for access to, and the release and re-use of, data made available by G8 governments. They are:

- **Open Data by Default**
  - **Quality and Quantity**
  - **Useable by All**
  - **Releasing Data for Improved Governance**
  - **Releasing Data for Innovation**
11. While working within our national political and legal frameworks, we will implement these principles in accordance with the technical best practises and timeframes set out in our national action plans. G8 members will, by the end of this year, develop action plans, with a view to implementation of the Charter and technical annex by the end of 2015 at the latest. We will review progress at our next meeting in 2014.
12. **We also recognise the benefits of open data can and should be enjoyed by citizens of all nations.** In the spirit of openness we offer this Open Data Charter for consideration by other countries, multinational organisations and initiatives.

### ***Principle 1: Open Data by Default***

1. We recognise that free access to, and subsequent re-use of, open data are of significant value to society and the economy.
2. We agree to orient our governments towards open data by default.
3. We recognise that the term *government data* is meant in the widest sense possible. This could apply to data owned by national, federal, local, or international government bodies, or by the wider public sector.
4. We recognise that there is national and international legislation, in particular pertaining to intellectual property, personally-identifiable and sensitive information, which must be observed.
5. **We will:**
  - **establish an expectation that all government data be published openly by default**, as outlined in this Charter, while recognising that there are legitimate reasons why some data cannot be released.

### ***Principle 2: Quality and Quantity***

6. We recognise that governments and the public sector hold vast amounts of information that may be of interest to citizens.
7. We also recognise that it may take time to prepare high-quality data, and the importance of consulting with each other and with national, and wider, open data users to identify which data to prioritise for release or improvement.
8. **We will:**
  - **release high-quality open data that are timely, comprehensive, and accurate.** To the extent possible, data will be in their original, unmodified form and at the finest level of granularity available;
  - **ensure that information in the data is written in plain, clear language**, so that it can be understood by all, though this Charter does not require translation into other languages;

- **make sure that data are fully described**, so that consumers have sufficient information to understand their strengths, weaknesses, analytical limitations, and security requirements, as well as how to process the data; and
- **release data as early as possible**, allow users to provide feedback, and then continue to make revisions to ensure the highest standards of open data quality are met.

### ***Principle 3: Usable by All***

1. We agree to release data in a way that helps all people to obtain and re-use it.
2. We recognise that open data should be available free of charge in order to encourage their most widespread use.
3. We agree that when open data are released, it should be done without bureaucratic or administrative barriers, such as registration requirements, which can deter people from accessing the data.
4. **We will:**
  - **release data in open formats wherever possible**, ensuring that the data are available to the widest range of users for the widest range of purposes; and
  - **release as much data as possible**, and where it is not possible to offer free access at present, promote the benefits and encourage the allowance of free access to data. In many cases this will include providing data in multiple formats, so that they can be processed by computers and understood by people.

### ***Principle 4: Releasing Data for Improved Governance***

1. We recognise that the release of open data strengthens our democratic institutions and encourages better policy-making to meet the needs of our citizens. This is true not only in our own countries but across the world.
2. We also recognise that interest in open data is growing in other multilateral organisations and initiatives.
3. **We will:**
  - **share technical expertise and experience** with each other and with other countries across the world so that everyone can reap the benefits of open data; and
  - **be transparent about our own data collection, standards, and publishing processes**, by documenting all of these related processes online.

### ***Principle 5: Releasing Data for Innovation***

1. Recognising the importance of diversity in stimulating creativity and innovation, we agree that the more people and organisations that use our data, the greater

the social and economic benefits that will be generated. This is true for both commercial and non-commercial uses.

2. **We will:**

- **work to increase open data literacy and encourage people**, such as developers of applications and civil society organisations that work in the field of open data promotion, to unlock the value of open data;
- **empower a future generation of data innovators** by providing data in machine-readable formats.

## Appendix C – Edmonton Open Government Licence

This license is based on version 2.0 of the Open Government License – Alberta, which was developed through public consultation and a collaborative effort by the provincial and federal government. The only substantive changes in this license are to replace direct references to the Province of Alberta with the City of Edmonton.

You are encouraged to use the Information that is available under this license with only a few conditions. The complete text of this licence is provided below.

### Using Information under this licence

Use of any Information indicates your acceptance of the terms below.

The Information Provider grants you a worldwide, royalty-free, perpetual, non-exclusive licence to use the Information, including for commercial purposes, subject to the terms below.

#### You are free to:

Copy, modify, publish, translate, adapt, distribute or otherwise use the Information in any medium, mode or format for any lawful purpose.

#### You must, where you do any of the above:

Acknowledge the source of the Information by including any attribution statement specified by the Information Provider and, where possible, provide a link to this licence.

If the Information Provider does not provide a specific attribution statement, or if you are using information from several information providers and multiple attributions are not practical for your product or application, you must use the following attribution statement:

Contains information licensed under the Open Government Licence – Alberta.

The terms of this licence are important, and if you fail to comply with any of them, the rights granted to you under this licence, or any similar licence granted by the Information Provider, will end automatically.

## **Exemptions**

This licence does not grant you any right to use:

- Personal Information;
- Information or Records that are not accessible under applicable laws;
- Third party rights the Information Provider is not authorized to license;
- The names, crests, logos, or other official symbols of the Information Provider; and
- Information subject to other intellectual property rights, including patents, trademarks and official marks.

## **Non-endorsement**

This licence does not grant you any right to use the Information in a way that suggests any official status or that the Information Provider endorses you or your use of the Information.

## **No warranty**

The Information is licensed “as is”, and the Information Provider excludes all representations, warranties, obligations, and liabilities, whether express or implied, to the maximum extent permitted by law.

The Information Provider is not liable for any errors or omissions in the Information, and will not under any circumstances be liable for any direct, indirect, special, incidental, consequential, or other loss, injury or damage caused by its use or otherwise arising in connection with this licence or the Information, even if specifically advised of the possibility of such loss, injury or damage.

## **Governing Law**

This licence is governed by the laws of the province of Alberta and the applicable laws of Canada.

Legal proceedings related to this licence may only be brought in the courts of Alberta.

## **Definitions**

In this licence, the terms below have the following meanings:

- "Information" means information resources or Records protected by copyright or other information or Records that are offered for use under the terms of this licence.
- "Information Provider" means Her Majesty the Queen in right of Alberta.
- "Personal Information" has the meaning set out in section 1(n) of the Freedom of Information and Protection of Privacy Act (Alberta)
- "Records" has the meaning set out in section 1(q) of the Freedom of Information and Protection of Privacy Act (Alberta)

- "You" means the natural or legal person, or body of persons corporate or incorporate, acquiring rights under this licence.

### **Versioning**

This is Version 1.0 of the Open Government Licence – Edmonton. The Information Provider may make changes to the terms of this licence from time to time and issue a new version of the licence. Your use of the Information will be governed by the terms of the licence in force as of the date you accessed the information.

## **Appendix D – Data about EPL in the CoE Data Catalogue**

- Proposed Shaw Wi-Fi Locations in Edmonton
- 2011-2012 Fringe Festival Venues and Performance Schedules
- Historical Buildings in Edmonton
- 2013-2017 Council and Committee Meetings – Agenda Items
- Bus Stops by Landmark
- Youth Services Directory
- Outline Agreements over \$10,000 – 2012
- 2012 Budget Consultation Survey – Satisfaction with City Services
- Voting Subdivision Boundaries and Voting Stations
- 2011-2013 Council and Committee Meetings – Agenda Items
- 2011-2013 Council and Committee Meetings – Motions
- 2012 Budget Consultation Survey – City Goals and Outcomes
- Purchase Orders Over \$10,000 – 2012
- 2013-2017 Council and Committee Meetings – Motions
- Recycling Directory
- Recreational Facility – Programs, Courses and Camps

## **Appendix E – Memorandum of Understanding – Open Data Sets**

### **Purpose**

This Memorandum of Understanding provides the guidelines for participating group(s) or organization(s) (known as participants) to make available digital data for the City of Edmonton's Open Data Catalogue.

### **Objective**

A memorandum of understanding is a document describing either a bilateral or a multilateral agreement between various participants. This document:

- clarifies key points of the agreement
- identifies various roles and responsibilities for signatories to the agreement

**Benefits**

This agreement will increase the availability of public datasets. It will generate a standardized format for various data sets. The agreement also promotes the exchange of information and foster communication between the public and various business units and organizations.

**Definitions****Participants**

Participants can be either City business units, public and private organizations that are parties to this Memorandum of Understanding.

**Open Data**

Open data is machine-readable data that is freely available to everyone to use and republish, without restrictions from copyright, patents or other mechanisms of control.

**Policy**

This agreement will be available for use when there is a need to create and upload a new dataset(s). By signing this agreement, each participant agrees to

- identify the required datasets
- provide the necessary meta data for each data set
- ensure that the data set is properly maintained

**Participant Responsibilities****1. Data Sets**

1. The participants agree to share data for mutual benefit, in order to minimize duplication of efforts and expenditures, and to enhance intergovernmental cooperation.
2. The participants will provide digital data in an agreed machine-readable format
3. The participants will provide electronic data in an agreed upon format
4. The participants or their representatives will generate the necessary dataset
5. The participants will assist to create the necessary metadata for each dataset
6. The Open Data Group will coordinate data collection and a standard dealing with attributes, accuracy, correctness, completeness, and other data elements
7. The participants shall follow the required procedures for the Service Support Incident Resolution Process as identified in the Service Support Agreement document

**2. Data Catalogue**

1. The Information Technology Branch will administer and maintain the Edmonton Open Data Catalogue to provide a repository of data sets generated or produced by the participating group(s) or organization(s).
2. The participating group or organization will provide updates to keep the data sets at its most current level or create links to locally maintained data sets.
3. The Data Catalogue will be available over the Internet

4. The Data Catalogue will reside in an external data centre
5. The Data Catalogue will be available seven days a week, 24 hours per day with exception for scheduled maintenance work

## **Terms of Agreement**

### **Expiration Date**

Upon all participants signing this Letter of Understanding, this agreement comes into effect. There is no expiration date for this agreement. At any time, this agreement can be subject to review, renewal, or expiration. Additional agencies can become participants by signing.

### **Termination**

The Open data Catalogue Group requests that the participant(s) provide a 10-business day notice before terminating their complete or partial involvement in this agreement. The participant must request such termination in writing.

### **Participation in Similar Activities**

This agreement does not restrict any of the participants from participating in similar activities with other public or private agencies, organizations, and individuals.

### **Confidentiality Statement**

All data sets shall contain public information and adhere to all provisions to Alberta's Freedom of Information Act.

### **Cost Recovery**

All digital data sets in the Open Data Catalogue shall be without cost. Costs may occur only if a requesting individual or organization wants a data set in a non-standard digital format or hard copy form. If cost recovery is determined to be necessary for such a request, the Information Technology Branch will issue a separate procurement document. Existing cost recovery rules and rates will apply. One needs written permission from all participants before one can sell such an item to the public.

### **Modification**

A participant may request changes be made to the Letter of Understanding by issuing written notification to all participants of this agreement. All parties to this agreement must sign the written modification to implement the required changes to the agreement.

### **Administration**

The participants or their representatives to this agreement shall administer this agreement. The Information Technology Branch will coordinate this administration.

### **Signed Copies**

Each participant shall receive a copy of this signed Memorandum of Understanding.

## Appendix F – Review of Municipal and Library Open Data

The given table identifies which Canadian and American public libraries share data independently or in a government data catalogue. The chart does not represent which cities host open data platforms; instead it identifies which cities host library data and lists the data they host. Data about libraries included in larger data sets is identified, but not included in final tallies.

Library	Data Host	Web Address	Data	File types	Terms of Use
<b>Calgary</b>	City of Calgary Open Data Catalogue	<a href="https://data.calgary.ca/OpenData/Pages/DatasetDetails.aspx?DatasetID=PD-C0-99999-99999-00202-P%28CITYonlineDefault%29">https://data.calgary.ca/OpenData/Pages/DatasetDetails.aspx?DatasetID=PD-C0-99999-99999-00202-P%28CITYonlineDefault%29</a>	Branch locations (part of a larger data set locating other city services)	CSV, DWG, KML, SHP	<a href="https://data.calgary.ca/OpenData/Pages/TermsOfUse.aspx">https://data.calgary.ca/OpenData/Pages/TermsOfUse.aspx</a>
<b>Charlotte-town</b> <sup>21</sup>			No library data available		
<b>Edmonton</b>	Edmonton Open Data Catalogue	<a href="https://data.edmonton.ca/Facilities-and-Structures/Public-Libraries/in25-zspi">https://data.edmonton.ca/Facilities-and-Structures/Public-Libraries/in25-zspi</a>	Branch locations	CSV, JSON, PDF, RDP, RSS, XLS, XLSX, XML & and an API	<a href="http://edmonton.ca/city-government/initiatives_innovation/open-gov-licence.aspx">http://edmonton.ca/city-government/initiatives_innovation/open-gov-licence.aspx</a>
	EPL Open Data Page	<a href="http://www.epl.ca/opendata">http://www.epl.ca/opendata</a>	Branch locations, hours, and events listings	XML, CSV & APIs	
<b>Fredericton</b>			No library data available		
<b>Halifax</b>			No library data available		
<b>Hamilton</b>	City of Hamilton Open and Accessible Data Catalogue	<a href="http://www.hamilton.ca/ProjectsInitiatives/OpenData/">http://www.hamilton.ca/ProjectsInitiatives/OpenData/</a>	Branch locations	KML, SHP	<a href="http://www.hamilton.ca/NR/rdonlyres/C58984A4-FE11-40B9-A231-8572EB922AAA/0/OpenDataTermsAndConditions_Final.htm">http://www.hamilton.ca/NR/rdonlyres/C58984A4-FE11-40B9-A231-8572EB922AAA/0/OpenDataTermsAndConditions_Final.htm</a>
<b>Kitchener</b>	Region of Waterloo Open Data	<a href="http://www.regionofwaterloo.ca/en/regionalGovernment/RegionalLibraries.aspx">http://www.regionofwaterloo.ca/en/regionalGovernment/RegionalLibraries.aspx</a>	Branch locations, contact info	SHP, KML	<a href="http://www.regionofwaterloo.ca/en/regionalGovernment/OpenDataLicence.aspx">http://www.regionofwaterloo.ca/en/regionalGovernment/OpenDataLicence.aspx</a>

<sup>21</sup> There is no municipal data portal in Charlottetown. The public library system in PEI is provincial, but there is no library data available on the PEI provincial data portal.

Library	Data Host	Web Address	Data	File types	Terms of Use
<b>London</b>			No library data available		
<b>Montreal</b>	Montreal Ouverts	<a href="http://donnees.ville.montreal.qc.ca/dataset?q=bibliotheque">http://donnees.ville.montreal.qc.ca/dataset?q=bibliotheque</a>	Catalogue information: District (description), Location (Description), Creation date of the record copy of the document, Total number of loans for inclusion in the system, Total loans this year, Status of the document (description), Type of document, Call # ("odds"?), title, Varying form of title (see MARC 21 standard), author, collaboration, editor, place, country, year, Number of pages, language, Collection, ISN, URL of cover image & branch locations and hours (translated with Google)	TSV (texte délimité par tabulation), CSV, ODS, XLS	<a href="http://donnees.ville.montreal.qc.ca/licence/licence-texte-complet/">http://donnees.ville.montreal.qc.ca/licence/licence-texte-complet/</a>
<b>Ottawa</b>	Ottawa Open Data Catalogue	<a href="http://data.ottawa.ca/groupe/ottawa-public-library">http://data.ottawa.ca/groupe/ottawa-public-library</a>	Branch locations and hours, library programs by branch and category, blog posts by category and media releases. Available in both French and English.	XML, RSS	<a href="http://ottawa.ca/en/mobile-apps-and-open-data/open-data-terms-use">http://ottawa.ca/en/mobile-apps-and-open-data/open-data-terms-use</a>
<b>Quebec City</b>	Quebec City Catalogue de Données Ouvertes	<a href="http://donnees.ville.quebec.qc.ca/catalogue.aspx">http://donnees.ville.quebec.qc.ca/catalogue.aspx</a>	Catalogue Info: ISBN, editor, description, subject, type, title, author & branch locations, contact, hours	CSV, XLS, XML	<a href="http://donnees.ville.quebec.qc.ca/licence.aspx">http://donnees.ville.quebec.qc.ca/licence.aspx</a>
<b>Regina</b>	City of Regina Datasets	<a href="http://openregina.cloudapp.net:8080/v1/OpenRegina/PointOfInterest/">http://openregina.cloudapp.net:8080/v1/OpenRegina/PointOfInterest/</a>	Branch locations (part of a larger city dataset)	XLS, CSV, DAISY, SHP	
<b>Saskatoon</b>			No library data available		
<b>St. Catherines</b>	Open Data Niagara Region	<a href="http://www.niagararegion.ca/government/opendata/dataset.aspx?id=15&amp;tab=data_table&amp;f=xmI&amp;r=25&amp;p=1">http://www.niagararegion.ca/government/opendata/dataset.aspx?id=15&amp;tab=data_table&amp;f=xmI&amp;r=25&amp;p=1</a>	Branch locations and contact info	XML, CSV, JSON, KML, DAISY, SHP	<a href="http://www.niagararegion.ca/government/opendata/terms-of-use.aspx">http://www.niagararegion.ca/government/opendata/terms-of-use.aspx</a>

Library	Data Host	Web Address	Data	File types	Terms of Use
<b>St. John's</b> <sup>22</sup>			No library data available		
<b>Toronto</b>	Toronto Open Data Catalogue	<a href="http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=a7ae0ea14b661310VgnVCM1000003dd60f89RCRD&amp;vgnextchannel=1a66e03bb8d1e310VgnVCM10000071d60f89RCRD">http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=a7ae0ea14b661310VgnVCM1000003dd60f89RCRD&amp;vgnextchannel=1a66e03bb8d1e310VgnVCM10000071d60f89RCRD</a>	Branch locations and future branch locations	KML	<a href="http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=4a37e03bb8d1e310VgnVCM10000071d60f89RCRD">http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=4a37e03bb8d1e310VgnVCM10000071d60f89RCRD</a>
	TPL Website	<a href="http://www.torontopubliclibrary.ca/feeds/">http://www.torontopubliclibrary.ca/feeds/</a>	Branch locations	KML	n/a
<b>Vancouver</b>	Vancouver City Open Data Catalogue	<a href="http://data.vancouver.ca/datacatalogue/libraries.htm">http://data.vancouver.ca/datacatalogue/libraries.htm</a>	Branch locations; Detailed circulation and year end statistics from every year dating back to 2003 <sup>23</sup>	CSV, XLS, KML, SHP, DWG	<a href="http://vancouver.ca/your-government/open-data-catalogue.aspx">http://vancouver.ca/your-government/open-data-catalogue.aspx</a>
	VPL Open Data Catalogue	<a href="https://www.vpl.ca/opendata">https://www.vpl.ca/opendata</a>	Detailed circulation and year end statistics from every year dating back to 2003	XLSX	<a href="https://www.vpl.ca/open-data/terms_of_use/">https://www.vpl.ca/open-data/terms_of_use/</a>
<b>Victoria</b>			No library data available		
<b>Winnipeg</b>			No library data available		
<b>Atlanta</b> <sup>24</sup>					
<b>Austin</b>	data.austintexas.gov	<a href="https://data.austintexas.gov/dataset/Austin-Public-Library-Materials-Customers-Internet/xcd2-xf2f">https://data.austintexas.gov/dataset/Austin-Public-Library-Materials-Customers-Internet/xcd2-xf2f</a>	Branch locations, materials checked out, customers using services, public internet station users,	CSV, JSON, PDF, RDP, RSS, XLS, XLSX, XML & API	<a href="http://www.austintexas.gov/page/legal-notice">http://www.austintexas.gov/page/legal-notice</a> <sup>25</sup>
<b>Baltimore</b>	Open Baltimore	<a href="https://data.baltimorecity.gov/browse?tags=library">https://data.baltimorecity.gov/browse?tags=library</a>	Branch locations	CSV, JSON, PDF, RDP, RSS, XLS, XLSX, XML, KMZ, & API	<a href="http://www.baltimorecity.gov/TermsOfUse.aspx">http://www.baltimorecity.gov/TermsOfUse.aspx</a>

<sup>22</sup> There is no municipal data portal in St. John's and the provincial data portal contains no library data.

<sup>23</sup> As of January 6, 2014 the detailed circulation data is not available on the city portal, but this is an accidental oversight that my inquiry brought to their attention. All of VPL's data will be included as city data in these statistics.

<sup>24</sup> Atlanta Open Data requires a Socrata Login ID, so I can't tell what data they have.

<sup>25</sup> The policy link is to a "Legal Notices" page which covers all of austintexas.gov. It is the only data policy I could find.

Library	Data Host	Web Address	Data	File types	Terms of Use
<b>Boston</b>			No library data available		
<b>Brooklyn /New York /Queens</b> <sup>26</sup>	Open NYC	<a href="https://data.cityofnewyork.us/data?browseSearch=%22public+library%22">https://data.cityofnewyork.us/data?browseSearch=%22public+library%22</a>	Catalogue: Call #, Author, Title, Edition, Pub Info, Standard #; Branch Locations; NYPL branch services from July 2010 to June 2011, by borough, network, program, attendance, and more. Queens library branch locations and hours	CSV, JSON, PDF, RDP, RSS, XLS, XLSX, XML & an API	<a href="https://data.cityofnewyork.us/">https://data.cityofnewyork.us/</a> <sup>27</sup>
	What's on the Menu and NYPL site.	<a href="http://api.repo.nypl.org/">http://api.repo.nypl.org/</a> & <a href="http://menus.nypl.org/data">http://menus.nypl.org/data</a>	Significant portions of the Library's digitized collections are available as machine-readable data: over 1 million objects	API, CSV	<a href="http://api.repo.nypl.org/terms_conditions">http://api.repo.nypl.org/terms_conditions</a> <sup>28</sup>
<b>Chattanooga</b> <sup>29</sup>					
<b>Chicago</b>	Chicago Data Portal	<a href="https://data.cityofchicago.org/browse?q=librar*&amp;sortBy=relevance&amp;utf8=%E2%9C%93">https://data.cityofchicago.org/browse?q=librar*&amp;sortBy=relevance&amp;utf8=%E2%9C%93</a>	branch locations, contact information, and hours of operation. Circulation by location, circulation by location, visitors by location, SRC stats by age group, computer usage by location, holds placed by location; holds filled by location; popular fiction titles; popular non-fiction titles <sup>30</sup>	CSV, JSON, PDF, RDP, RSS, XLS, XLSX, XML & APIs	<a href="http://www.cityofchicago.org/city/en/narr/foia/data_disclaimer.html">http://www.cityofchicago.org/city/en/narr/foia/data_disclaimer.html</a>

<sup>26</sup> The public libraries in Brooklyn, New York and Queens are all hosted on the Open NYC Data Platform and are considered together here.

<sup>27</sup> Terms of use accessible behind the ? Symbol in the top navigation bar

<sup>28</sup> Terms of Use from the What's on the Menu site: "No known copyright restrictions on this material. We ask that you credit The New York Public Library as source on any applications or publications."

<sup>29</sup> Chattanooga PL is responsible for developing the open data catalogue for the city, but the project is in its early stages.

<sup>30</sup> Searching for "public library" in the data portal returns 149 results. Data sets that refer to Chicago Public Library but haven't been provided by the library include detailed budget information, current employee names, salaries and position titles, and crime statistics

Library	Data Host	Web Address	Data	File types	Terms of Use
<b>Denver</b>	Denver Open Data Catalogue	<a href="http://data.denvergov.org/dataset/city-and-county-of-denver-libraries">http://data.denvergov.org/dataset/city-and-county-of-denver-libraries</a>	Branch locations. The data includes patronage and circulation for the previous calendar year.	SHP, DWG, KML, CSV, XML, GDB	<a href="http://data.denvergov.org/termsfuse">http://data.denvergov.org/termsfuse</a>
<b>Kansas City</b>			No library data available		
<b>Los Angeles</b> <sup>31</sup>			No library data available		
<b>Madison</b>	City of Madison Data	<a href="https://data.cityofmadison.com/Library/Madison-Public-Library-Locations/hb5z-buaz">https://data.cityofmadison.com/Library/Madison-Public-Library-Locations/hb5z-buaz</a>	Branch locations, images, contact info	CSV, JSON, PDF, RDP, RSS, XLS, XLSX, XML & an API	<a href="http://www.cityofmadison.com/data.cfm">http://www.cityofmadison.com/data.cfm</a>
<b>New Orleans</b>	Data.NOLA.gov	<a href="https://data.nola.gov/City-Assets/New-Orleans-Public-Libraries/4uek-d54m">https://data.nola.gov/City-Assets/New-Orleans-Public-Libraries/4uek-d54m</a>	Branch locations, hours, contact info	CSV, JSON, PDF, RDP, RSS, XLS, XLSX, XML & an API	CC0 (according to page); the whole site has: <a href="http://www.nola.gov/site/">http://www.nola.gov/site/</a>
<b>Philadelphia</b>	Open Data Philly <sup>32</sup>	<a href="http://opendataphilly.org/pendata/resource/223/free-library-of-philadelphia-rss-feeds/">http://opendataphilly.org/pendata/resource/223/free-library-of-philadelphia-rss-feeds/</a>	The library maintains several RSS feeds: Author Events, Free Library Blog, Free Library Podcast, Book Reviews, and Digital Collections.	RSS	<a href="http://opendataphilly.org/terms/">http://opendataphilly.org/terms/</a>
<b>Portland, OR</b>			No library data available		
<b>Raleigh</b>	WakeGov GIS map services	<a href="http://www.wakegov.com/gis/services/Pages/data.aspx">http://www.wakegov.com/gis/services/Pages/data.aspx</a>	Branch locations	SHX, DBF, PRJ, SBN, SBX, SHP, XML	<a href="http://www.wakegov.com/gis/services/Pages/metadata.aspx">http://www.wakegov.com/gis/services/Pages/metadata.aspx</a> <sup>33</sup>
<b>San Francisco</b>	San Francisco Data	<a href="https://data.sfgov.org/Public-Health/Public-Libraries-San-Francisco-CA/gkws-iwmu">https://data.sfgov.org/Public-Health/Public-Libraries-San-Francisco-CA/gkws-iwmu</a>	Branch locations	SHP	Attribution Share Alike; <a href="http://www6.sfgov.org/in dex.aspx?page=220">http://www6.sfgov.org/in dex.aspx?page=220</a>

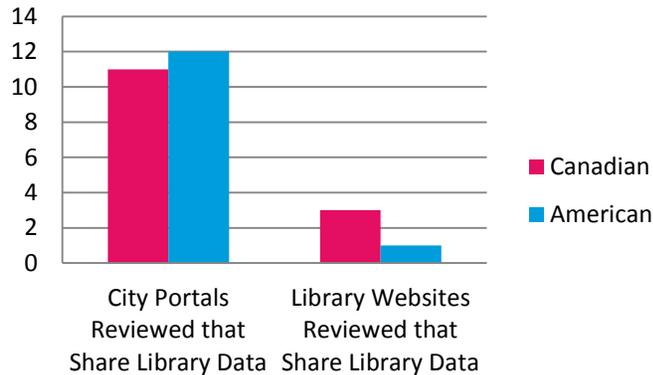
<sup>31</sup> There is a city of Los Angeles open data portal. Search results from "library" included library payroll details and city audit information.

<sup>32</sup> Linked to from the library website (in a blog post)

<sup>33</sup> This is called a "Disclaimer"; the library site is attached to the government site

Library	Data Host	Web Address	Data Shared	File types	Terms of Use
Santa Cruz	City of Santa Cruz Open Data	<a href="http://data.cityofsantacruz.com/dataset/library-catalog-search">http://data.cityofsantacruz.com/dataset/library-catalog-search</a>	Catalog Web Search Interface	XML	<a href="http://opendefinition.org/okd/">http://opendefinition.org/okd/</a>
Scottsdale			No library data available		
Seattle	Data.Seattle.Gov	<a href="https://data.seattle.gov/Community/Libraries/usk4-ujha">https://data.seattle.gov/Community/Libraries/usk4-ujha</a>	Branch locations	CSV, JSON, PDF, RDP, RSS, XLS, XLSX, XML & an API	<a href="https://data.seattle.gov/page/data-policy">https://data.seattle.gov/page/data-policy</a>

### Locations of Library Data



### File Formats Used on City Data Portals

