

Open Data & Libraries

A First Tuesdays presentation of the Washington State Library
Kathleen Sullivan, Washington State Library open data literacy consultant

Who's your presenter?

- Supports library open data activities in WA: publishing, instructing, advising and more.
- Before librarianship, government and economic journalism, as well as grantwriting.



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What this webinar will cover

- What open data is
- Examples of open data portals and applications
- What libraries are doing with open data
- Resources for getting started with open data

What is Open Data?

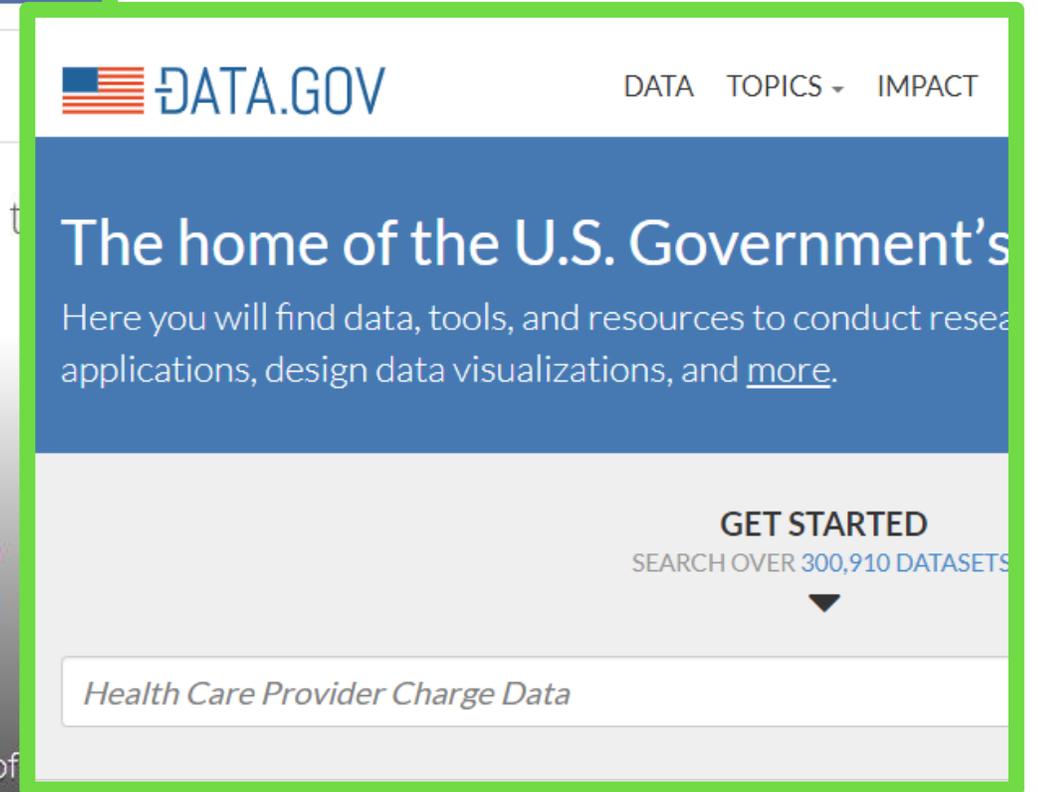
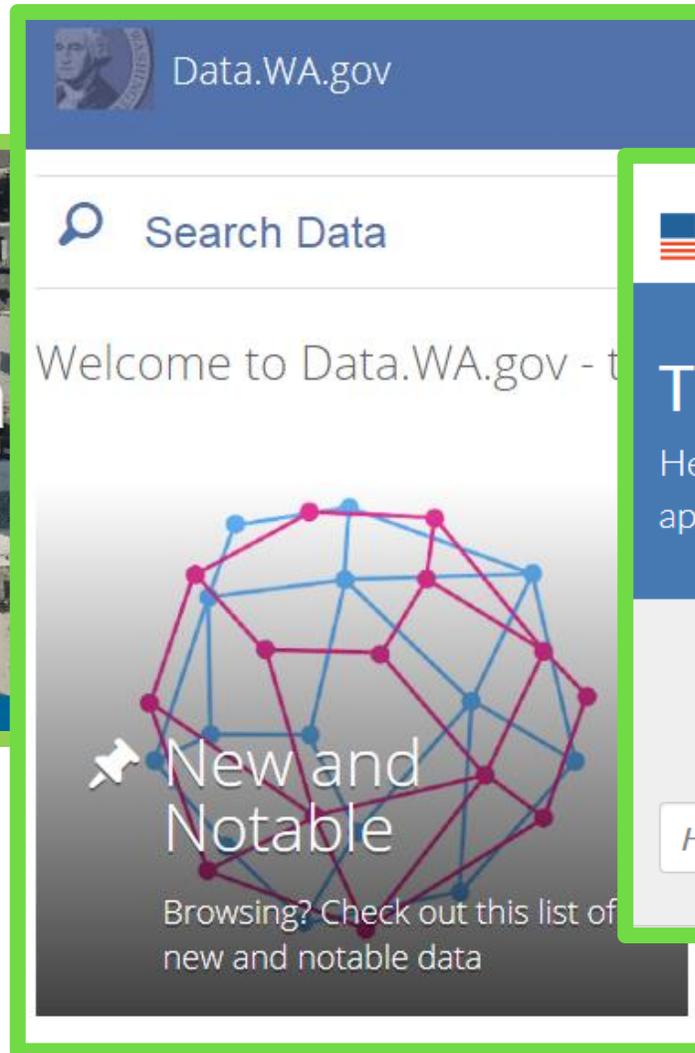
“Open data and content can be freely used, modified, and shared by anyone for any purpose.”

The *Open Definition* from Open Knowledge International

*Open data includes both scholarly and government data. My focus is primarily open **government data that is machine readable.***

Open data among us

Portals



Open data among us

Telling a story (region)

Northeast Washington Trends About | Contact

TRENDS

WELCOME

Thank you for visiting Northeast Washington Trends, an online community resource offering a centralized location to learn more about Ferry, Pend Oreille, and Stevens Counties. Approximately 130 indicators are highlighted, all are supported by trusted, reliable sources and are continually updated.

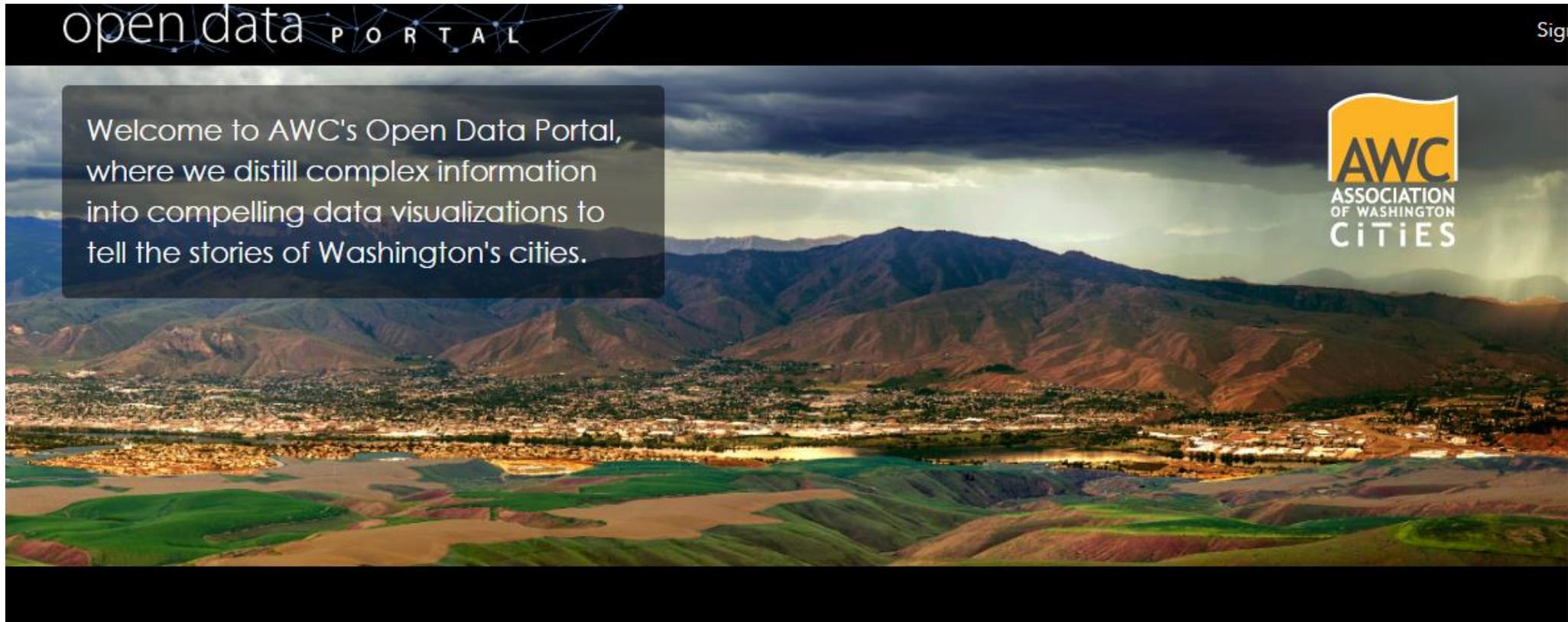
These measures were chosen by residents in the three counties through a careful process and represent the preferences of what to measure from the available data. As you begin to examine

- People
- Economic Vitality
- Education
- Environment
- Health
- Housing
- Public Safety
- Recreation & Tourism

<http://www.northeastwashingtontrends.ewu.edu/>

Open data among us

Telling a story (sector)



Featured data stories

<http://datadatadata-awcnet.opendata.arcgis.com/>

Open data among us

Efficiency & Effectiveness



CITY OF CHICAGO

Inspections

Predictions

Code



<https://chicago.github.io/food-inspections-evaluation/>

Open data among us

Efficiency & Effectiveness



<https://esri.app.box.com/s/b0ah67eraj68w7spngc5drgmb29jvobr>

Open data among us

Innovation



The screenshot shows the Walk Score website. At the top, there is a navigation bar with the "Walk Score" logo and links for "Get Scores", "Find Apartments", and "My Favorites". Below this is a search bar with a clock icon, a text input field containing "Type an address, neighborhood or city", and a blue "Go" button. The main content area features a section titled "Cities & Neighborhoods" with a paragraph explaining that Walk Score is available for any address in the United States and Canada, covering over 10,000 neighborhoods. Another paragraph states the organization's belief that walkable neighborhoods with public transit access are key to a better life. Below this is a section titled "2017 City & Neighborhood Ranking" with a featured image of New York City. The image includes a callout box that says "Walk Score #1 New York Walk Score: 89.2".

<https://www.walkscore.com/>



OneBusAway

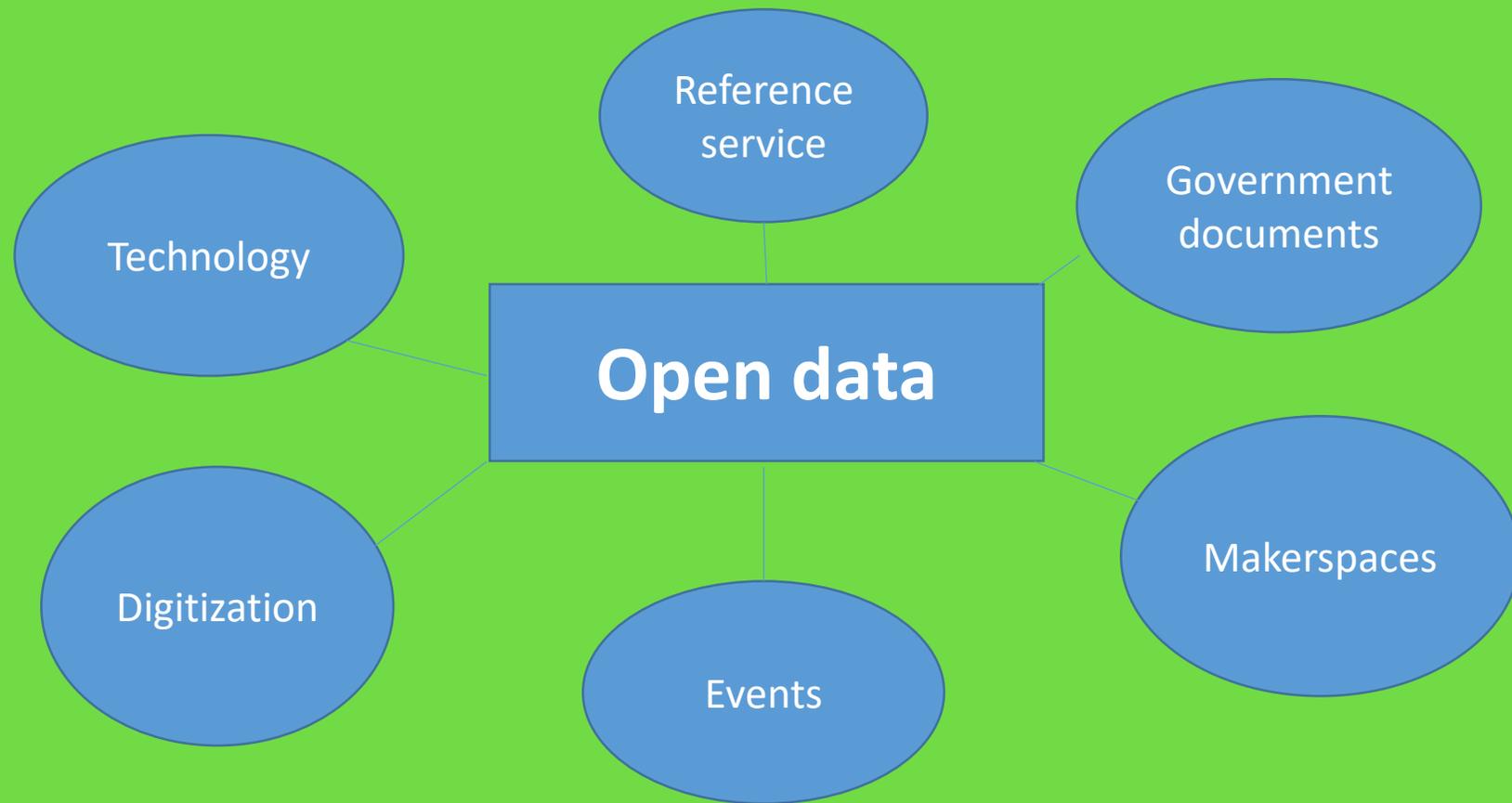
<https://onebusaway.org/>

The potential of open data

- Transparency and accountability
- Public sector efficiency
- Innovation

Borgesius, F.Z., Gray, J., & van Eechoud, M. (2015). Open data, privacy, and fair information principles: Toward a balancing framework. *Berkeley Technology Law Journal*, 30(3), 2073-2130.

Libraries & open data



Open data roles for libraries

- **Publishers** of library open data
- **Instructors** for patrons, government agencies, and other librarians
- **Partners, advisors, curators** for local government agencies publishing data

My research



- Interviewed staff and gathered other information from 22 public libraries (mostly in WA) about open data activities.
- Surveyed WA's 39 counties and the largest city in each county for local open data.

Libraries as publishers

BibNumber ▼	ItemBarcode ▲	ItemType ▲	Collection ▲	CallNumber ▲	ItemTitle
2133802	0010066927244	acdvd	naIndvd	GERMAN DVD AGUIRRE	Aguirre der Zorn Gottes
2129985	0010086519880	acdvd	cadvd	DVD AMERICA	American beauty
35335	0010005502272	acbk	canf	917.9 G795P	Pacific Crest Trail

- Seattle Public Library publishes its collection inventory and check-out data on Seattle's open data portal.
- Other publishing public libraries include those in Boston, Chicago, Edmonton, San Jose, Memphis and Austin.
- State libraries publish public library statistics
- IMLS has its own open data portal of library statistics (<https://data.imls.gov/>)

What do libraries publish to open data portals?



BRANCH INFORMATION & PATRON DATA

- Branch Services
- Library Visitors / Attendance
- Program Attendance
- Library Cardholders
- Library Expenditures

CIRCULATION DATA

- Most Popular Books by Branch
- Popular Fiction Titles
- Popular Nonfiction Titles
- Popular Teen Titles
- Library Holds
- Satisfaction with Library Materials

TECHNOLOGY DATA

- Library WiFi Usage
- Library Computer Usage
- Electronic Resources

Libraries as publishers



Washington Public Library Statistics

Public library statistics including budget, collections, and usage data, are collected and compiled on an annual basis by the Washington State Library Development staff. More statistics are available from the [Institute of Museum and Library Services](#).

[Washington 2018 Map of Public Library Service](#)

[2017 CSV file of Library Administrative Data and 2017 CSV file of Branch Library Data](#)

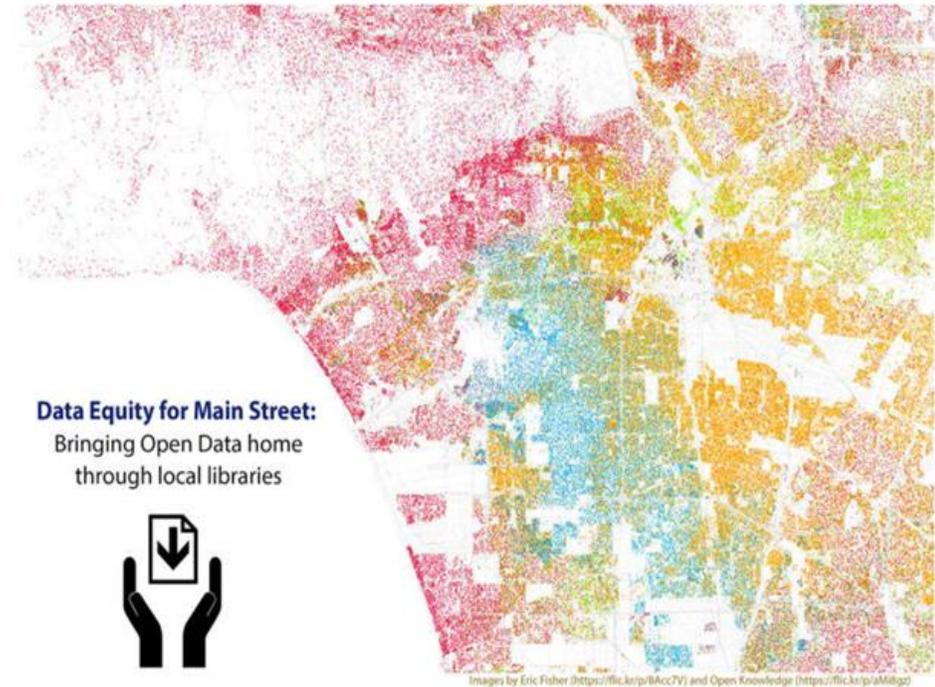
<http://www.sos.wa.gov/quicklinks/stats>

- Publishing your data helps you understand challenges any publisher faces – time constraints, privacy and security concerns, anxiety about misinterpretation.
- Publishing your data helps other libraries!

Want to publish some data? The State Library will help!

Libraries as open data instructors

- Ten WA libraries participated in the Knight Foundation's [Data Equity for Main Street program](#), which developed and pilot-tested open data curriculum for the general public.
- Libraries also use the curriculum to educate other librarians and local government officials about open data.
- Other open data curricula include [Data 101](#), developed by Western Pennsylvania Regional Data Center and Carnegie Library of Pittsburgh.



What libraries like about open data classes

- Strong connection to library mission – access, literacy, critical thinking, citizenship
- Overall positive feedback from participants
- Good strategic planning: Thriving libraries explore new tools

What libraries find challenging about open data classes

- Attendance
- Meeting different skill levels and interests
- Some librarians wondered if just-in-time instruction, or subject-specific instruction (e.g., business, property, crime), might work better

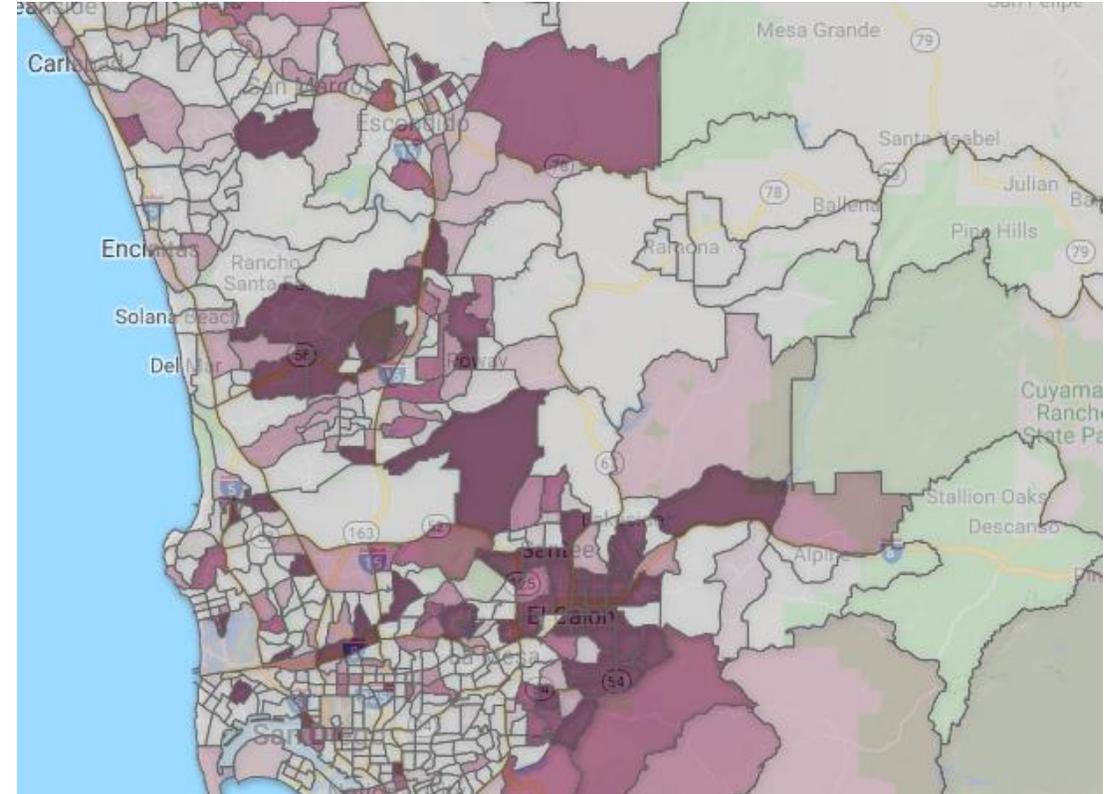
Open data as reference source

Most instructing librarians thought **reference librarians** should be familiar with open data resources. They said open data is most helpful as a source for users who want to,

- **Answer questions** for which a ready-to-use answer doesn't exist
- **Vet assertions**, or find an additional source to support an assertion
- **Analyze, interpret**, visualize and innovate with data themselves

Open data library staff training a home run

- High attendance and enthusiasm
- Informal signs of continued use – emails, requests for more classes
- Librarians find internal uses for open data



Using U.S Census data to show numbers of Arabic speakers in San Diego Public Library service areas

Courtesy of Phil Gunderson, San Diego Public Library

Libraries as advisors

As advisors and trusted partners, libraries can help government agencies publish more and better open data.

One hope is that open data might reduce **public records requests**, which can be time-consuming and stressful for government agencies – as well as expensive, if agencies are found in compliance with the law.

Libraries as advisors

- Three Washington State public libraries are working with local governments to launch or improve open data portals.
- Altogether nearly a dozen WA library systems expressed interest in working with local government on open data, or even hosting open data portals themselves.



Libraries leading across the U.S. and Canada



Around a dozen libraries have taken leadership roles across the U.S. and Canada – putting together hack-a-thons and other data events, developing curriculum and even hosting portals themselves.

What makes libraries natural open data advisors?

- **User experience experts:** Libraries interact with the public daily and understand how real people seek and use information.
- **Friendly to both technology and humans**
- **Long experience using data** to demonstrate value
- **Open-information ambassadors**
- **Seasoned curators:** Librarians set information quality standards, and select, organize and weed information to make it discoverable and useful.

Libraries as advisors

Can libraries help expand local open data?



- Two thirds of WA counties and a few large cities publish open data of some kind
- Overwhelmingly GIS, often presented in DIY formats
- Just a few localities (*left*) were publishing anything other than GIS of things

Libraries as advisors

Improving portals

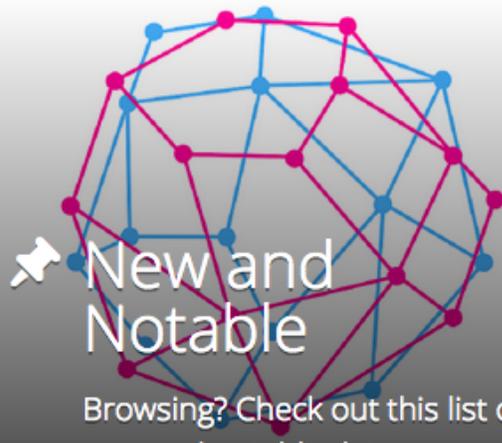


Data.WA.gov



Adams County

Welcome to Data.WA.gov - the general



New and Notable

Browsing? Check out this list of new and notable data



Interested?

What's the next right step for your library?

Next steps: Read curriculum

- Data Equity for Main Street: <https://data-equity.github.io/DataEquityForMainStreet/>
- Data 101, developed by the Carnegie Library of Pittsburgh and the Western Pennsylvania Regional Data Center: <https://www.wprdc.org/news/data-101-toolkit/>
- Search for *open data* or *GIS* courses on your favorite coding site, or search for *open data* or *GIS* in Google limiting for *.edu*.

Consider how you might use curriculum for staff, patrons or local agencies.

(If you want to teach a class in WA or CA, get in touch with Kathleen for support.)

Next steps: Create an open data collection

Pull together a **library guide** of open data relevant to your users.

- To find open data about your region:
 - Search *open data [locality name]* in a search engine
 - Search *data, GIS or maps* within localities' official websites
 - Search locality names on *data.gov, data.wa.gov* (or your statewide portal)
- Highlight online curricula or local open data learning opportunities.
- Connect patrons to local institutions that champion data, including the library itself, local colleges and community technology activists (e.g., Code for America).

Peruse logs of recent reference questions, and consider recent local issues or controversies: What questions might open data address?

Publish some data!

Public libraries in Washington State can publish data on *data.wa.gov*, at no cost to the library and with **support from the State Library.**

Contact Kathleen to get started.

kathleen.sullivan@sos.wa.gov

Talk to local agencies about open data

- Are agencies feeling burdened with public records requests?
- Has an event (a storm) or public issue (homelessness) demonstrated that local services could work together more effectively?
- Does local government want to showcase outcomes to the public?

The State Library can support a conversation and connect you to other advising libraries.

More open data resources

Open government data portals

- U.S. federal government: <https://www.data.gov/>
- Washington State: <https://data.wa.gov/>
- Local open data portals in Washington (WA State Library scan, Summer 2018):
<https://osos.maps.arcgis.com/apps/MapSeries/index.html?appid=f121140a2a7c4d259518900d133d3bef>

Open data about libraries

- Washington state public library statistics:
<https://www.sos.wa.gov/library/libraries/libdev/publications.aspx#WAStats>
- Institute of Museum and Library Services portal: <https://data.imls.gov/>

Library-hosted open data portals

- Chapel Hill, NC open data portal: <https://www.chapelhillopendata.org/page/home1/>
- Chattanooga, TN open data portal: <https://data.chattlibrary.org/>

More open data resources

Public libraries publishing current open data in U.S., Canada

- Boston Public Library: <https://data.boston.gov/dataset?q=library>
- Chicago Public Library: https://data.cityofchicago.org/browse?q=library&sortBy=last_modified&utf8=%E2%9C%93
- Edmonton (Alberta, Canada) Public Library: <https://data.edmonton.ca/browse?q=library&sortBy=relevance>
- San Jose Public Library: <https://data.sanjoseca.gov/datasets/165194/library-data-california-room/>
- Seattle Public Library: <https://data.seattle.gov/browse?q=library>

More open data resources

Publishing your data, training sites

- Getting started with data.wa.gov: <https://ocio.wa.gov/open-data/getting-started-datawagov>
- Socrata training site (Washington State publishers, contact Kathleen for access code): <http://learn.socrata.com/>
- ArcGIS training site (You can sign up for a free account, if your organization doesn't have an account): <https://learn.arcgis.com/en/>. This Esri video provides a solid brief introduction: <https://www.youtube.com/watch?v=N-5FCICaMyM>

Open data curriculum

- Data Equity for Main Street: <https://data-equity.github.io/DataEquityForMainStreet/>
- Data 101, developed by the Carnegie Library of Pittsburgh and the Western Pennsylvania Regional Data Center: <https://www.wprdc.org/news/data-101-toolkit/>

More open data resources

Helping local agencies launch open data:

- Guidance from WA OCIO on data selection: <https://ocio.wa.gov/programs/open-data/guidance-what-data-publish>
- Eastern Washington University's *Community Indicators* "About" pages provide succinct guidelines and summaries of their community-centered data selection process: <https://sites.ewu.edu/ciprojects/>
- Western Pennsylvania Regional Data Center documentation on portal development, data selection and continued user feedback: https://docs.google.com/document/d/1RL-RrjdycJfmVGxHU05DX4bJmmCEWjy6vbw4Xe_LYVI/edit
- Sunlight Foundation's Open Data Policy Hub, including best practices and sample policies: https://docs.google.com/document/d/1RL-RrjdycJfmVGxHU05DX4bJmmCEWjy6vbw4Xe_LYVI/edit

More open data resources

Open data sources to keep you up-to-date

- Bloomberg's *What Works Cities* project: <https://whatworkscities.bloomberg.org/>
- Civic Switchboard's resources, including its blog, the National Neighborhood Indicators Partnership and Digital Library Federation: <https://civic-switchboard.github.io/>
- Code for America blog: <https://medium.com/code-for-America>
- Socrata blog: <https://socrata.com/blog/>

Next steps: Get in touch, join up

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