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Credit: [Alex Proimos](#)

# DATA ENGAGEMENT FOR THE DATA-HESITANT LIBRARIAN

Or, How I Learned to Stop  
Worrying and Love the Data

# TODAY'S SESSION

(BASED ON ONE I DID FOR ICPSR)

- ❖ Data-savvy for all: Can we? Must we? Should we?
- ❖ Critical data literacy
- ❖ Empowering librarians to choose their own approaches
- ❖ Engaging data-hesitant librarians in training and other activities
- ❖ Training approaches and availability
- ❖ Creating your plan of action for future data activities



WITH THANKS TO ICPSR!!!

The ICPSR presentation:

- [https://is.gd/DataEngage\\_ICPSR](https://is.gd/DataEngage_ICPSR)

The ICPSR slides:

- [https://is.gd/DataEngage\\_Slides](https://is.gd/DataEngage_Slides)

The ICPSR collaborative notes document:

- [https://is.gd/DataEngage\\_CollabNotes](https://is.gd/DataEngage_CollabNotes)

# CRITICAL DATA LITERACY: DEFINED

*“I rarely talk now about just ‘data literacy’, and instead, I now frame it more clearly as critical data literacy.”*

The skills needed to copy and paste your spreadsheet into a great tool like [Datawrapper](#) or [RAW](#) seem far less urgent to me than being able to critically assess the limitations of your data and what it might make your viewer think; about who can access and understand that data, and [what you want them to do once they have understood](#), to name just a few of those skills.”

--Zara Rahman, “[Getting Critical with Data Literacy](#)”

Credit: [Harry McGregor](#)





# EMPOWERING LIBRARIANS: CHALLENGING THE STATUS QUO

“A challenge for any librarian in this area is intimidation, as well as data mystification. “Data” is seen as having special power in Western academic settings, and as something that can be interpreted only by experts in a given field. Although librarians work to enable access to information of all types, ***there is a growing divide between “data librarians” and “non-data librarians” in academic libraries today.***”

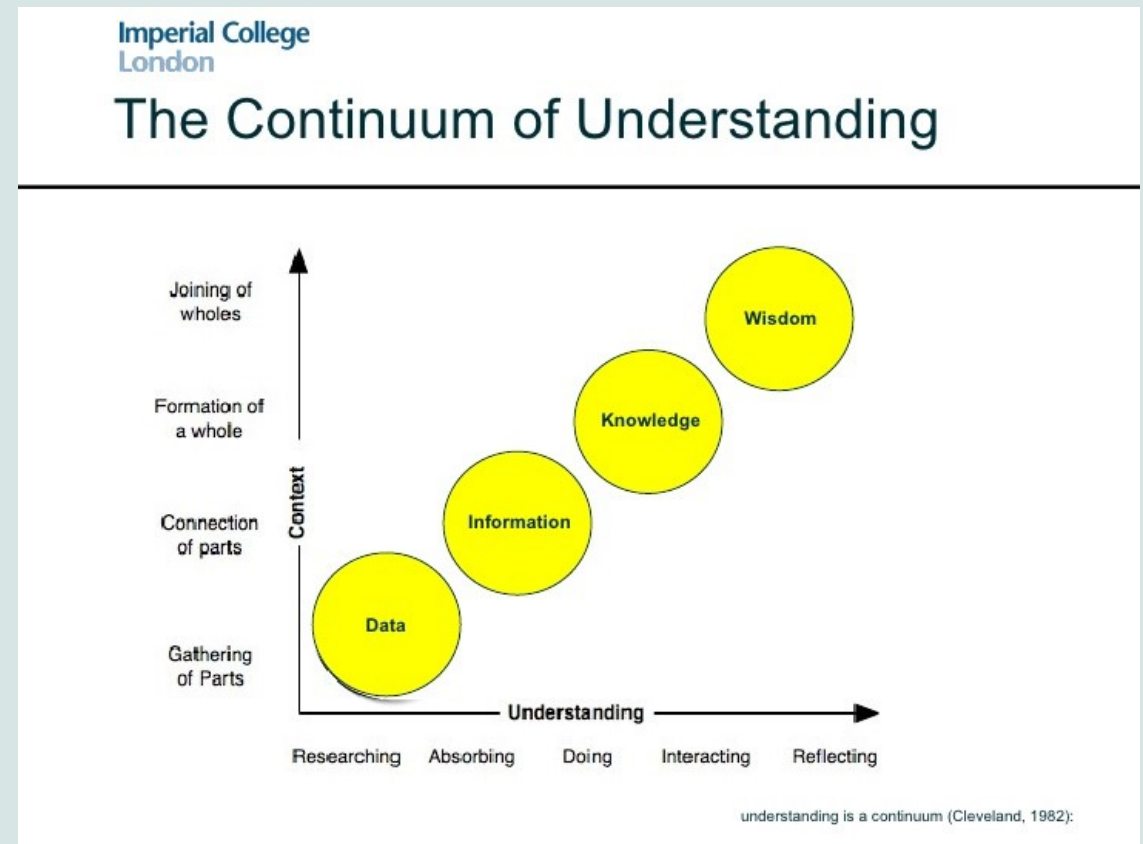
--Pappas, Emmelhainz and Seale, “[Critical Data Literacy Using Remittances](#)”



Credit: [Eye/See](#)

# EMPOWERMENT: REMINDE OURSELVES, WE ALREADY KNOW HOW TO DO THIS!

- ❖ We already answer questions using data! Many tools on the internet that deliver answers are doing data analysis behind the scenes
- ❖ We are comfortable with classification and ordering of information—this is a fundamental data skill
- ❖ The ways we attack problems can translate neatly to data questions:
  - ❖ We do a careful reference interview
  - ❖ We evaluate sources for currency, bias, authority and reliability
  - ❖ We know how to search to find out what's already been done rather than recreating the wheel



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Credit: [Marc Biarnès](#)

# EMPOWERMENT: CHOOSING OUR OWN APPROACHES



## *In our workplaces:*

- ❖ Do you feel there is a good fit between your data competencies and your position?
- ❖ If not, do you need enhanced competencies, or are you being underutilized?
- ❖ Is there flexibility and support for professional development, and collaborative projects you could use to shift focus?
- ❖ Are there data-related initiatives or processes that you would like to be part of but aren't yet?
- ❖ Could you infuse data concepts and evidence-based decision making explicitly in your work? In instruction and programming if you are involved in those?
- ❖ Are there learning opportunities you feel drawn to?
- ❖ Are there like minded colleagues who might want to have regular meetings (they can be short!)?

## *In our careers:*

- ❖ Understand yourself– how connected do and interested in data are you, really?
- ❖ Do you want to improve your data skills in your current position?
- ❖ If you aren't already, do you see yourself becoming a data-focused librarian some day? (or, even, leaving librarianship for data)
- ❖ Do you feel ready/motivated to stay abreast of changing trends which are increasingly data-driven?
- ❖ Depending on the answers to these questions, what professional development opportunities, mentors, continuing education, etc. might you want to commit to?

# ENGAGEMENT: CIVIC DATA IS A GREAT PLACE TO START

## Table Preview

[View Data](#)[Create Visualization](#)

Dataset Name	Problem Statements Rel...	Keywords	URL	api_endpoint
Appliance Large Items Permits	How are appliance large items ...	appliance large items,permits	<a href="https://data.cambridgema.gov...">https://data.cambridgema.gov...</a>	<a href="https://data.cambridgema.gov...">https://data.cambridgema.gov...</a>
Dewatering Permits	How are dewatering permits a			
Excavation Permits	How are excavation permits s			
Temporary Food Service Permits	How are business outside of C			
Catering Permits	How are businesses outside o			
Swimming Pool Permits	How are swimming pools in th			
Food Establishment Permits	Are food establishments activ			
Tobacco Licenses without Food...	How are tobacco shops geogr			
Mobile Food Truck Permits	How are food trucks geograph			
Farmer's Market Permits	How are farmer's markets dist			
Demolition Permits	What kinds of buildings are be			
Sheet Metal Permits	What can the kind of sheet me			
Solar Installation Permits	What can the dataset suggest			
Building Permits: New Constr...	Where is most of the new buil			

cambridge  open data

## Civic Innovation Challenge Inventory

General Government

Use Cambridge's open data to help our city come up with innovative solutions to its biggest challenges. This dataset lists city issues that you can help us solve by analyzing or hacking on our open data. It's certainly not an exhaustive list, but we hope it will at least point you in the right direction. Feel free to reach out at [OpenData@cambridgema.gov](mailto:OpenData@cambridgema.gov) with questions or ideas. Thanks for your help. We're glad you're on our team!

< Previous Next >

Showing datasets 1 to 14 out of 52



# ENGAGEMENT: THERE'S NO PLACE LIKE HOME

2018  
OCT  
31

Ebony Magnus, Jackie Belanger and Maggie Faber

0 Comments

## TOWARDS A CRITICAL ASSESSMENT PRACTICE

*"We worry about disclosing data, but often do not consider the implications of creating data."* -Jeffrey Alan Johnson (2018, p. vi)

*"A critical assessment practice starts with mindfulness."* -Sonia DeLuca Fernández (2015, p. 5)

## THE LIBRARY ASSESSMENT COOKBOOK

edited by Aaron W. Dobbs



ALSO:

- ❖ Online learning
- ❖ Forums (fora?) and listservs
- ❖ Collaboration/[networks](#)
- ❖ [Mentors](#)
- ❖ Events
- ❖ [Love Data Week](#)
- ❖ Reading Groups
- ❖ Live Watch Sessions



# ENGAGEMENT: A THING OF BEAUTY (IN 26 ROWS)

## Data Engagement Opportunities

This document is intended to provide ideas for library and information professionals in how they MIGHT progress in data skills in specific areas. This document should not be used as a position description for any one individual. Instead, it provides areas for how research data skills MAY be implemented across an institution depending upon individual, institutional, and programmatic goals.

Transferable Skills A	Research Data Lifecycle Phase B	Data Information Literacy Competency C	Engaged D	Collaborating E	Coordinating F	Measures of Success G
1 Reference interviewing; Usability; Document storage; Knowledge management; Human resources management; Projects management; Reference services; User education; Problem solving; Scholarly communication; Understanding user demands and information needs; Research skills; Communication skills; Working in a team; Knowledge of current developments; Strategic planning; Ability to change/agility; Service orientation; Lifecycle of information perspective; Long tail of information perspective; Systems of information perspective; Power dynamics inherent in information production perspective; Social dynamic of groups perspective	Creating Data	Data Management and Organization	Have a conversation with a researcher about their research process and data.	Organize projects to address identified RDM needs for a specific faculty member or researcher.	Embed in research projects as a grant-supported data manager; review policies and protocols	Upward trend in: *collaborations with researchers *number of templates available *institutional collaborations *number of grants awarded
2 Knowledge of current developments; Reference interviewing; Understanding user information needs; Information literacy instruction; Lifecycle of information perspective; Information perspective; Participation in networks and consortia; Knowledge of subject content				Creating Data	Cultures of Practice	Identify the research data management requirements for the most common grant funders for your disciplines.
3 Reference interviewing; Information literacy instruction; User education; problem communication; Strategic planning; Understanding user demands and information needs; Communication skills; User interface; Knowledge of current developments; Digital practices; Security and privacy; Service orientation; Lifecycle of information perspective; Information perspective				Creating Data	Data Management and Organization	Speak with individuals about available tools and templates, such as DMPtool.org.
4 Knowledge of current developments; Reference interviewing; Understanding user information needs; Information literacy instruction; Lifecycle of information perspective; Information perspective; Participation in networks and consortia; ICT and emerging Systems of information perspective				Creating Data	Discovery and Acquisition of Data	Know the disciplinary repositories for your disciplines and teach them to students as likely sources for scholarly work.
5 Collection development/management; Evaluation of collections; Selection and acquisition of materials; Reference interviewing; Knowledge management; Financial resources management; Projects management; Transferring analog operations to digital operations; Reference services; Problem solving; Cataloging; Metadata; Research skills; Communication skills; Digital Archival practices; Digitization; Ability to change/ Agility; Ethics and social responsibility; Long tail of information perspective; Economics of information perspective; Knowledge of subject content				Creating Data	Discovery and Acquisition of Data	Locate existence of datasets a researcher needs and/or owns.
6 Collection development/management; Evaluation of collections; Selection and acquisition of materials; Reference interviewing; Evaluation/assessment of services; Knowledge Database design; Database management; Document storage; Preservation of materials				Creating Data	Discovery and Acquisition of Data	Locate existence of datasets a researcher needs and/or owns.

Credit: Megan Sapp Nelson and Abigail Gobin,  
[ACRL RDM Road Show](#)

# TRAINING: A TEMPLATE



Credit: Alex P.

<https://is.gd/GluskerIASSIST2021>

## HOW ARE DATA CREATED? CASE STUDY: BIRTH

### GETTING STARTED WITH DATA

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A basic one-hour workshop to use with librarians who want to get started but are hesitant...

**Washington State Birth Filing Form**

Child's Information		
1. Child's Name First	2. Date of Birth (MM/DD/YYYY)	3. Time of Birth (24 Hrs)
Middle	Suffix (Sr., Jr., II, III, etc.)	
LAST	4a. Type of Birthplace (Specify Type) <input type="checkbox"/> Hospital <input type="checkbox"/> Clinic/Doctor's Office <input type="checkbox"/> Enroute <input type="checkbox"/> Freestanding Birth Center <input type="checkbox"/> Other (Specify)	
4b. Planned Birth Place, if different Specify:		5. Sex
6. Name of Facility (if not		
Mother's Statistical Information		
34. Mother's Medical Record Number	35. Mother's Prepregnancy Weight (Pounds)	36. Mother's Weight at Delivery (Pounds)
37. Mother's height Feet: _____ Inches: _____	38. Did Mother get WIC food for herself during pregnancy? <input type="checkbox"/> Yes <input type="checkbox"/> No	39. Cigarette Smoking Before and During Pregnancy If none enter "0" Average number of cigarettes or packs per day: Three months before pregnancy _____ OR _____ First three months of pregnancy _____ OR _____ Second three months of pregnancy _____ OR _____ Last three months of pregnancy _____ OR _____
40a. Number of Previous Live Births (Do not include this child) Number Now Living _____ <input type="checkbox"/> None Number Now Dead _____ <input type="checkbox"/> None	41a. Number of Other Pregnancy Outcomes (Spontaneous or induced losses or ectopic pregnancies) Number of Other Outcomes _____ <input type="checkbox"/> None	# of cigarettes # of packs
13. Mother's Current Legal	40b. Date of Last Live Birth (MM/YYYY) (Do not include this child)	41b. Date of Last Other Pregnancy Outcome (MM/YYYY)
15. Is Mother Married to the	42a. Date of First Prenatal Care Visit (MM/DD/YYYY) <input type="checkbox"/> No Prenatal Care	42b. Date of Last Prenatal Care Visit (MM/DD/YYYY)
16a. Residence: Number and	44. Date Last Normal Menses Began (MM/DD/YYYY)	45. Was mother transferred to higher level care for maternal medical or fetal indications for delivery? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, name of facility/mother was transferred from: _____)
16c. County	17. Telephone Number	46. Principal Source of Payment for this Delivery <input type="checkbox"/> Medicaid <input type="checkbox"/> Self Pay <input type="checkbox"/> Private Insurance <input type="checkbox"/> Indian Health <input type="checkbox"/> CHAMPUS <input type="checkbox"/> Other Gov't <input type="checkbox"/> Other (Specify)
19. Mother's Mailing Address City or Town	43. Total Number of Prenatal Visits for this Pregnancy (If none, enter 0)	

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# MORE TRAINING FOR THE DATA BEGINNER

- ❖ Data Equity for Main Street <https://data-equity.org/>
- ❖ Coursera, edX and other MOOCs (the levels may vary!)
- ❖ Lynda.com if available through your library (or local public library)
- ❖ May work best to find basic statistics or even numeracy/math courses rather than starting with data, such as [https://onlinecourses.science.psu.edu/statprogram/review\\_of\\_basic\\_statistics](https://onlinecourses.science.psu.edu/statprogram/review_of_basic_statistics) or <https://www.ipracticemath.com/learn/basicmath>
- ❖ Or look for resources for specific topic areas, such as Basic Data Analysis for Health Programs <https://www.measureevaluation.org/resources/training/capacity-building-resources/basic-data-analysis-for-health-programs>

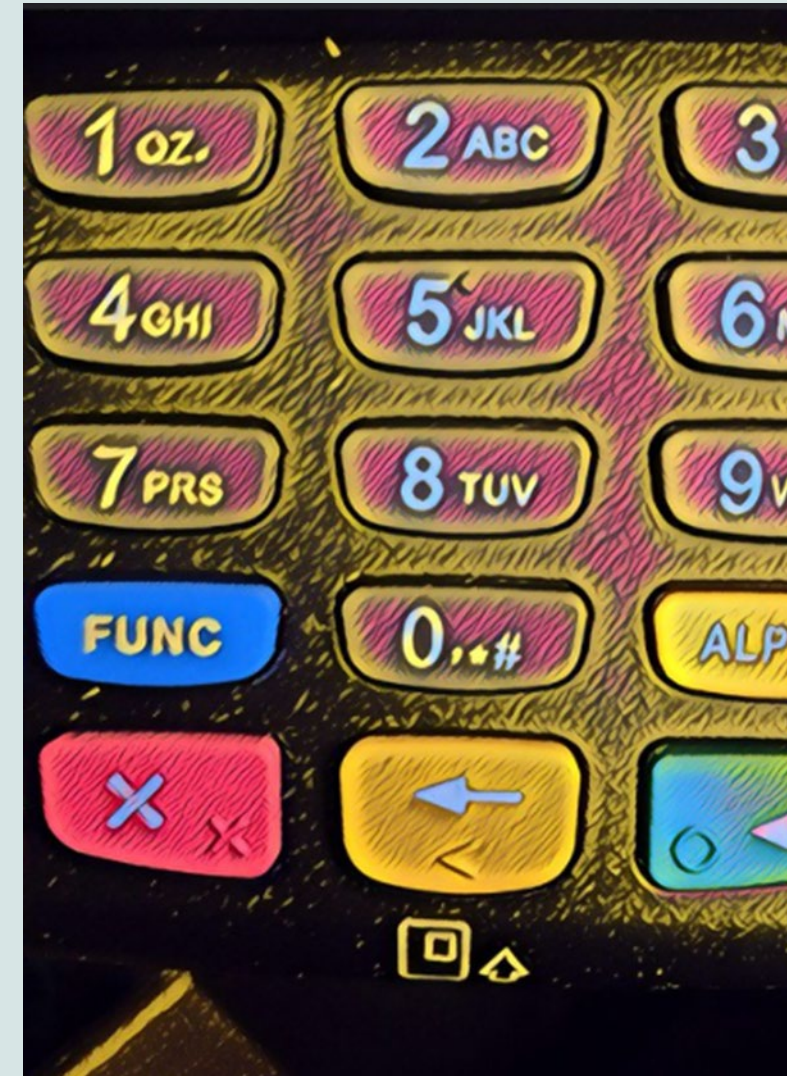


Credit: [Andy Roberts](#)



# TRAINING FOR THE DATA-SAVVIER

- ❖ School of Data <https://schoolofdata.org/>
- ❖ Data Journalism Handbook  
<http://datajournalismhandbook.org/1.0/en/index.html>
- ❖ Open Data Institute <https://theodi.org/courses>
- ❖ Open Data Handbook <http://opendatahandbook.org/resources/>
- ❖ Data 101 <https://www.neighborhoodindicators.org/data-tech/course-catalog/data-101-data-visualization-data-literacy-and-storytelling>
- ❖ Also, check out offerings on your own campus! **AND ICPSR!!**
- ❖ And, there are many online courses related to research data management—contact me if you want to know more



Credit: [Damian Gadal](#)



# CREATING A PLAN OF ACTION

- ❖ Ideas for implementing inclusive data initiatives in your settings: 1) Refer to the engagement grid; 2) encourage individual approaches! That said----
- ❖ An individual not making a data engagement plan is a valid choice! But...if you want to encourage data confidence...
- ❖ Ask librarians in your setting to consider:
  - ❖ What is realistic for your setting and job, and/or personal life?
  - ❖ Who would be natural collaborators?
  - ❖ What appeals to you? (at work or not)
- ❖ Then— if they want to engage, set goals! 1, 3 and 6 months...???



Credit: [Zilupe](#)

## **MINE:**

- 😊 1: Read [Data Feminism](#) book
- 😊 3: Take a class, “Power Pivot Data Modeling in Excel”
- ❌ 6: Create my own template of library assessment data relating to my departments, that I can update yearly

# QUESTIONS?

Slides and training template:

<https://is.gd/GluskerIASSIST2021>

Email me!

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Credit: [Janet McKnight](#)