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Credit: <u>Alex Proimos</u>

# DATA ENGAGEMENT FOR THE DATA-HESITANT LIBRARY WORKER

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

### **ABSTRACT:**

In today's library settings, there is an increasing focus on data skills and data literacy. In fact, many library job seekers consider data skills a ticket to success, and many believe that data-related competencies are more central than ever for the activities of library workers (this term includes all: library staff, librarians, student workers, etc.)

Library leaders now encourage widespread acquisition of data skills in order to have a corps of data-savvy library workers. But what happens to the data-hesitant library worker in this scenario? While data literacy is seen as a universal good and universally attainable, data-related training often assumes competency levels that are above the "rank beginner" status advertised. This means that for any push towards data-savviness, there are both library workers who resist, whatever the reasons for their hesitation, and library workers who want to engage but have barriers/uncertainty around beginning.

The questions included in this presentation will be: how to engage these library workers with data? Can we? Must we? Should we? An outline of critical data literacy will be followed by suggestions for how to engage "non-data" library workers with data training and activities in the library setting. The issues of how feasible/desirable it is to expect universal data-savviness, and how to empower library workers to choose their own approaches to the issue, both in the workplace and in their career planning, will be addressed. Finally we'll discuss training approaches and resources. Attendees will leave with ideas for implementing data initiatives in their settings which are inclusive of all levels of data comfort.

### TODAY'S SESSION BASED ON ONE I DID FOR ICPSR)

- ❖ Data-savvy for all: Can we? Must we? Should we?
- Critical data literacy
- Empowering library workers to choose their own approaches
- Engaging data-hesitant library workers 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

The ICPSR slides:

https://is.gd/DataEngage Slides

The ICPSR collaborative notes document:

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 <u>Datawrapper</u> or <u>RAW</u> 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 <u>what you want them to do once they have understood</u>, to name just a few of those skills."

--Zara Rahman, "Getting Critical with Data Literacy"

Credit: <u>Harry McGregor</u>



# EMPOWERING LIBRARY WORKERS: CHALLENGING THE STATUS QUO

"A challenge for any librarian[/library worker] 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[/library workers] 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, "<u>Critical Data</u> <u>Literacy Using Remittances</u>"



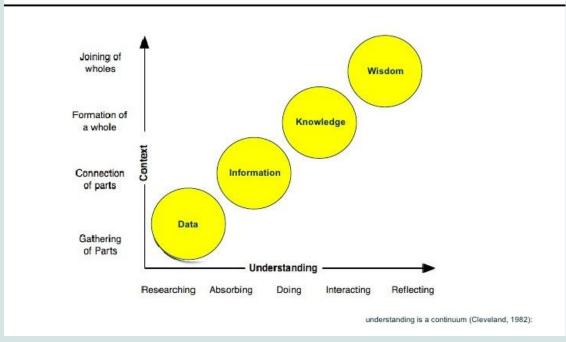
Credit: Eye/See

# EMPOWERMENT: REMIND 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

Imperial College London

The Continuum of Understanding



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### EMPOWERMENT: CHOOSING OUR OWN APPRO



### 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!)?

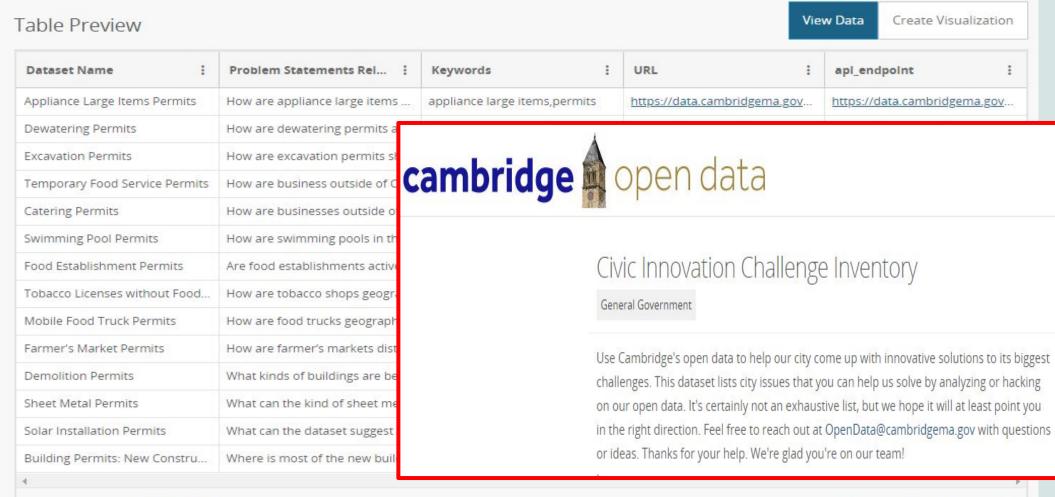
#### In our careers:

- 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 library worker some day? (or, even, leaving libraries 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

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### ENGAGEMENT: THERE'S NO PLACE LIKE HOME

2018 OCT 31

Ebony Magnus, Jackie Belanger and Maggie Faber o 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)

# edited by Aaron W. Dobbs

### ALSO:

- Online learning
- ❖Forums (fora?) and listservs
- Collaboration/<u>networks</u>
- **♦**Mentors
- **Events**
- ❖ Love Data Week
- Reading Groups
- Live Watch Sessions

### ENGAGEMENT: A THING OF BEAUTY (IN 24 POW/S)

### **Data Engagement Opportunities**

	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.  Research Data  Data Information										
	Transferable Skills			Lifecycle Phase	Literacy Competency	Engaged	Collaborating	Coordinating	Measures of Success		
	A		В	C	D	E	F	G			
		1	Reference interviewing, Usability, Document storage, Knowledge management, Iki management: Projects management, Reference services; User education; Problem communication; Understanding user demands and information model. Research is skills Working in a team; Knowledge of current developments: Stategic planning; skills Working in a team; Knowledge of current developments: Stategic planning; skills Working in a team; Knowledge of current developments: Stategic planning; skills Working in a team; Knowledge of current developments: Stategic planning; skills with a stategic planning; perspective; Social dynamic of groups perspective; perspective; Social dynamic of groups perspective.	solving: Scholarly ills, Communication Ability to if information	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 use information needs; Information literacy instruction; Lillecycle of information peng information perspective; Participation in networks and consortia; Knowledge of s	Knowledge of current developments; Reference interviewing; Understanding user demands and information needs; Information literacy instruction; Lifecycle of information perspective; Systems of information perspective; Participation in networks and consortia; Knowledge of subject content			Creating Data	Cu	tures of Practice	Identify the research data management requirements for the most common grant funders for your disciplines.	
		,	Reference interviewing Information Illuracy instruction: User education, problem communication: Seategic planning, Understanding user demands and informatic Communication shifts User Interface; Recordedge of current developments; Digita practices: Security and privacy; Service orientation; Lifecycle of information perspiritumation perspective								
		)		cc	ommunication; Strategic plann	ation literacy instruction; User education; ning; Understanding user demands and ir	nformation needs; Marketing;				Speak with individuals about available
		4	Knowledge of current developments, Reference interviewing: Understanding use information needs; Information literacy instruction; Lifecycle of information peng- information perspective, Participation in networks and consortia; KT and emergi Systems of information perspective.	<b>)</b> p		munication skills; User interface; Knowledge of current developments; Digital collections; Archival ices; Security and privacy; Service orientation; Lifecycle of information perspective; Long tail of mation perspective		Creating Data	Data Manag	ement and Organization	tools and templates, such as DMPtool.org.
		5	Collection development/management; Evaluation of collections; Selection and at materials; Beference identiseus; Erowindige management; Financial resources a Projects management; Transferring analog operations to digital operations; Refer Problem solving; Cataloging; Metadata; Research skills; Communication skills; Dig Archival practices; Digitatation; Ability to change: Agility; Ethics and social responsionations of the properties of the pr	als; Reference leter-leveling. Encoviledge management: Financial resources is smanagement. Transferring analog operations to digital operations. Refer is solving; Cataloging, Metadata: Research sollis; Communication skills; Digital practices; Digititation; Ability to change / Apility; Ethics and social respon- tion; Long stall of information perspective. Economics of information perspective.		Knowledge of current developments; Reference interviewing; Understanding user demands and information needs; Information literacy instruction; Lifecycle of information perspective; Systems of information perspective; Participation in networks and consortia; ICT and emerging technologies; Systems of information perspective			Creating Data Discovery		Know the disciplinary repositories for your disciplines and teach them to students as likely sources for scholarly work.
		6	Collection development/management; Evaluation of collections; Selection and ac materials; Reference interviewing: Evaluation/assessment of services; Knowledge Database design; Database management; Document storage; Preservation of mat	m	aterials; Reference interviewin	gement; Evaluation of collections; Selection and acquisition of ng; Knowledge management; Financial resources management;					
Credit: Megan Sapp Nelson and Abigail Goben,			5 P	Projects management; Transferring analog operations to digital operations; Reference services; Problem solving; Cataloging; Metadata; Research skills; Communication skills; Digital collections; Archival practices; Digitization; Ability to change/ Agility; Ethics and social responsibility; Service orientation; Long tail of Information perspective; Economics of information perspective; Knowledge of subject content					and Acquisition of Data	Locate existence of datasets a researcher needs and/or owns.	
ACRL	RDM	Ro	<u>ad Show</u>								

### TRAINING: A TEMPLATE



https://is.gd/Glusker DataEngage UCLibForum

### GETTING STARTED WITH DATA

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

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### HOW ARE DATA CREATED? CASE STUDY: BIRTH

Washington State	Birth Filing For	m		
Child's Inf				
1. Child's Name First	*2. Date of	Birth (MM/DD/YYYY)	1	
Middle	*3. Time of	Birth (24 Hrs)		
LAST	Suffix (Sr.,	Jr., II, III, etc.)		
Type of Birthplace (Specify Type)     Hospital 2	4b. Planned Birth Place, If of Specify:			
Clinic/Doctor's Office	***************************************	4070		-
Other(Specify):	Mother's Statistica	Information		
34. Mother's Medical Record Number	35. Mother's Prepregnancy Weight		36. Mother's Weight at Delivery	(Pounds)
. Mother's Name Before 77. Mother's height Feet: Inches:	38. Did Mother get WIC food for her ☐ Yes ☐		39. Cigarette Smoking Before and I If none enter "0"	During Pregnancy
First 40a. Number of Previous Live Births (Do not include this child)	41a. Number of Other Pregnancy O (Spontaneous or induced losses or		Average number of cigarettes or pa	icks per day:
Number Now Living None	1.50	70/20/70 //70	Three months before pregnancy	# of cigarettes # of packs
LAST  Mother's Current Legal  Number Now Dead  None	Number of Other Outcomes	None	First three months of pregnancy	OR OR
. Is Mother Married to the 40b. Date of Last Live Birth (MM/YYYY) (Do not include this child)	41b. Datast_other Pregnancy	Otherm	Second three months of pregnancy Last three months of pregnancy	OR OR
a. Residence: Number at	42b. Dafe of Last Prenatal Care Vis		43. Nal Number of Prenatal Visits	
Ic. County	AZD. Daje of <u>Last</u> Plenatar Care vis	COMMIDENTATI	(If n he, enter '0')	for this Pregnancy
. Telephone Number (MM/DD/YYYY) fetal Market	er transfer/ed to higher level care for ations for delivery?		46. Pincipal Source of Payment for Medicaid Self Pay	r this Delivery Private Insurance Other Gov't
9. Mother's Mailing Addres	Danie of Tachity/friotie	Was trained to Tolli.	Other (Specify)	Collies 307 t

## MORE TRAINING FOR THE DATA BEGINNER

- Data Equity for Main Street <a href="https://data-equity.org/">https://data-equity.org/</a>
- 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 <a href="https://onlinecourses.science.psu.edu/statprogram/review of basic statistics">https://onlinecourses.science.psu.edu/statprogram/review of basic statistics</a> or <a href="https://www.ipracticemath.com/learn/basicmath">https://www.ipracticemath.com/learn/basicmath</a>
- Or look for resources for specific topic areas, such as Basic Data Analysis for Health Programs

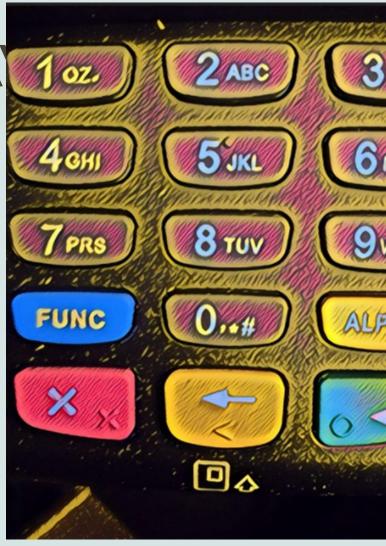
https://www.measureevaluation.org/resources/training/capacity-building-resources/basic-data-analysis-for-health-programs



Credit: Andy Roberts

### TRAINING FOR THE DATA-SA

- School of Data <a href="https://schoolofdata.org/">https://schoolofdata.org/</a>
- Data Journalism Handbook
  <a href="http://datajournalismhandbook.org/1.0/en/index.html">http://datajournalismhandbook.org/1.0/en/index.html</a>
- Open Data Institute <a href="https://theodi.org/courses">https://theodi.org/courses</a>
- Open Data Handbook <a href="http://opendatahandbook.org/resources/">http://opendatahandbook.org/resources/</a>
- Data 101
  <a href="https://www.neighborhoodindicators.org/data-tech/course-catalog/data-101-data-visualization-data-literacy-and-storytelling">https://www.neighborhoodindicators.org/data-tech/course-catalog/data-tech/course-catalog/data-101-data-visualization-data-literacy-and-storytelling</a>
- 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: <u>Damian Gadal</u>

### 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 library workers 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

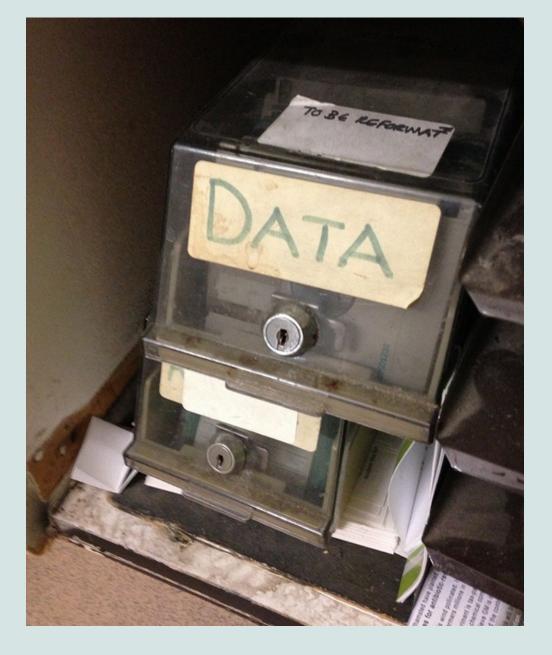
### **MINE:**

- 1: Read <u>Data Feminism</u> 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

### QUESTION S?

Slides and training template: <a href="https://is.gd/Glusker-DataEngage-UCLibForum">https://is.gd/Glusker-DataEngage-UCLibForum</a>

Email me!
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Credit: Janet McKnight