

# Building a Community: Crafting Specialized Curriculum for Data Curation

Sophia Lafferty-Hess, Research Data  
Management Consultant, Duke  
University

Mikala Narlock, Director, Data  
Curation Network

*This project was made possible in part by the Institute of Museum and Library  
Services (RE-252343-OLS-22).*



Ethical. Reusable. Better.

**DATA CURATION NETWORK**

[datacurationnetwork.org](http://datacurationnetwork.org)

# Mission

---

Trusted, community-led  
network of curators  
advancing open research  
by making data

Ethical. Reusable. Better.



# Phase 1(2017-current): CURATED Fundamentals Trainings

---

- C** Check files and read documentation.
- U** Understand the data (or try to), if not..
- R** Request missing information or changes.
- A** Augment metadata for findability.
- T** Transform file formats for reuse.
- E** Evaluate for FAIRness.
- (D)** Document your curation activities.



See our [online modules](#) as well!

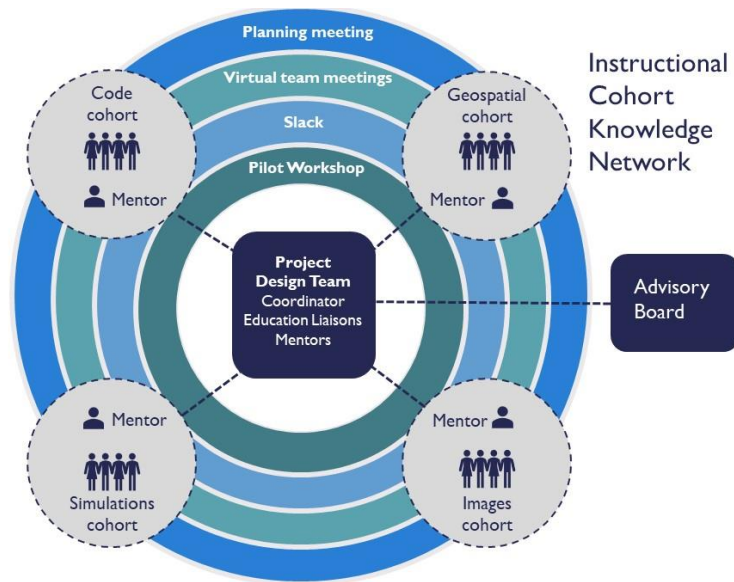
# Phase 2 (2022-2024): Expand curriculum for specialized data types

---

1. Develop curriculum materials for four specialized data types:
  - a. Geospatial data
  - b. Scientific images
  - c. Code
  - d. Simulations
2. Consider ethical, equitable, and accessible considerations for curation of that data type

# Our approach to curriculum development

We employed a community-driven “cohort model” to facilitate knowledge sharing and expansion of curation resources.



# Instructional Cohorts

## Simulation data

**Mentor: Wanda Marsolek**, Data Curation Librarian, University of Minnesota

**L. Wynholds**, UCLA

**Heather Shimon**, Science & Engineering Librarian, University of Wisconsin-Madison

**Fernando Rios**, Research Data Management Specialist, University of Arizona

**Girmaye Misgna**, Mapping & Geospatial Data Librarian, University of Pennsylvania

## Code

**Mentor: Seth Erickson**, Data Services Librarian, University of California at Santa Barbara

**Greg Janée**, Director, Library Research Data Services, University of California at Santa Barbara

**Nick Ruhs**, Research Data Management Librarian, Florida State University

**Talya Cooper**, Software Curation Specialist, New York University

**Kay P. Maye**, Scholarly Engagement Librarian for Social Sciences and Data, Tulane

## Scientific images

**Mentor: Neggin Keshavarzian**, Research Data Management Specialist, Princeton University

**Mariah Kenney**, Data Curator and Metadata Librarian, Brain Image Library

**Amy Schuler**, Director, Information Services & Library, Cary Institute of Ecosystem Studies

**Sarah Wright**, Research Data and Life Sciences Librarian, Cornell University

**Paul Gignac**, Associate Professor, Director of Global Graduate Programs, University of Arizona College of Medicine

## Geospatial data

**Mentor: Jennifer Moore**, Head of Data Services, Washington University in Saint Louis

**Leighton L Christiansen**, Data Curator, Center for Disease Control

**Kelly Grove**, GIS and Earth Sciences Librarian, Florida State University

**Tim Norris**, Data Scientist, University of Miami Libraries

**Melinda Kernik**, Spatial Data Analyst and Curator, University of Minnesota

# Our approach to curriculum development

---

We held a kickoff/planning meeting to establish relationships and a shared understanding of goals.



# Pilot workshop (Fall 2023): test and refine materials

---

- 35 participants including members of the archives/library community and cohort team members
- Each cohort had 2.5 hours to test materials of their choosing
- Refined materials based on feedback from participants





# Core content created and example outputs

---

All cohorts developed:

- A lesson plan
- Slide deck(s)
- Example datasets to use in exercises
- Associated learning materials

## **Code:**

Checklist for code curation

## **Geospatial:**

Extensive glossary of terms

## **Simulations:**

Evaluating simulations worksheet

## **Scientific Images:**

AI Chatbot activity

# Reflection as a Practice

*Reflective practice is the ability to reflect on one's actions so as to engage in a process of continuous learning.*

Donald Schon, *The Reflective Practitioner*, 1983

# Our approach to continuous learning

---

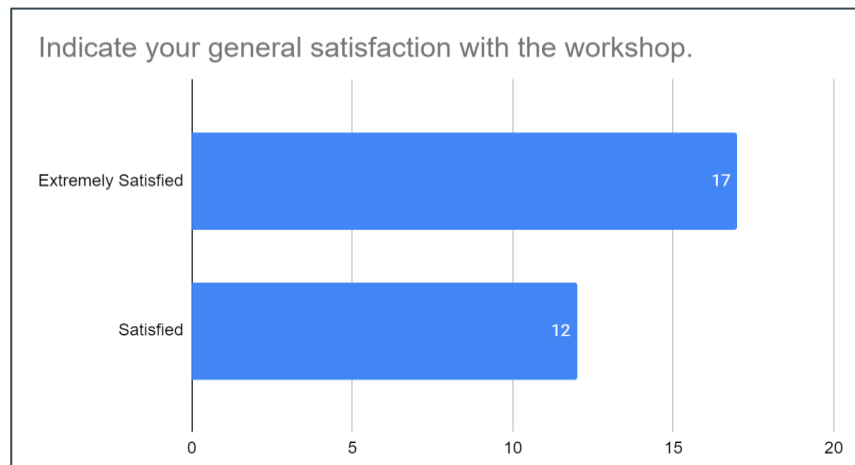
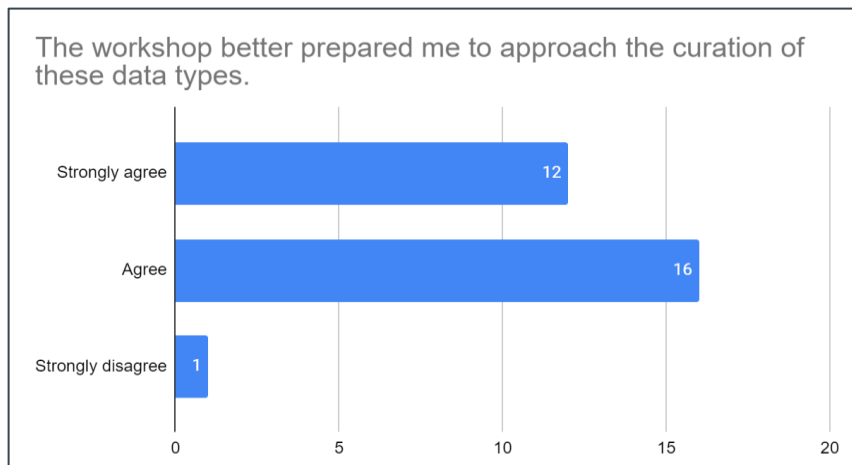
Centered feedback as a mechanism for the iterating and improving content as well as reflecting on what worked well and what can be improved in the future

- Peer review of module materials performed by each cohort in Summer 2023
- Individual paper surveys distributed after each data type module during the pilot workshop and shared back with the individual cohorts
- Final survey sent to all pilot workshop participants (cohort members and applicants)
- Feedback survey about their experience sent to cohort team members

# Our approach to continuous learning

---

## Workshop Participants Quantitative Responses (n=29)



# Our approach to continuous learning

---

However the depth of reflection, iterations, and learning came from the qualitative data.

“For me, this workshop showcased the DCN's unique position and ability to bring experienced practitioners and novice curators together in a joint learning experience, and to advance the tools, techniques, and principles of data curation. Thank you for doing this!”

“There simply wasn't enough time. Each topic was given 2.5hrs, but I'm thinking some of the topics would have benefited from having 4hrs, or even 5hrs. 5hrs (with suitable breaks) would have given the chance for participants to engage more deeply and more hands-on with a topics, especially one as complex as geospatial.”

“Over all this was a wonderful experience. There were times that the communication could have been better, just some confusion about documents and how to structure some things. Would love to participate in something like this again.”

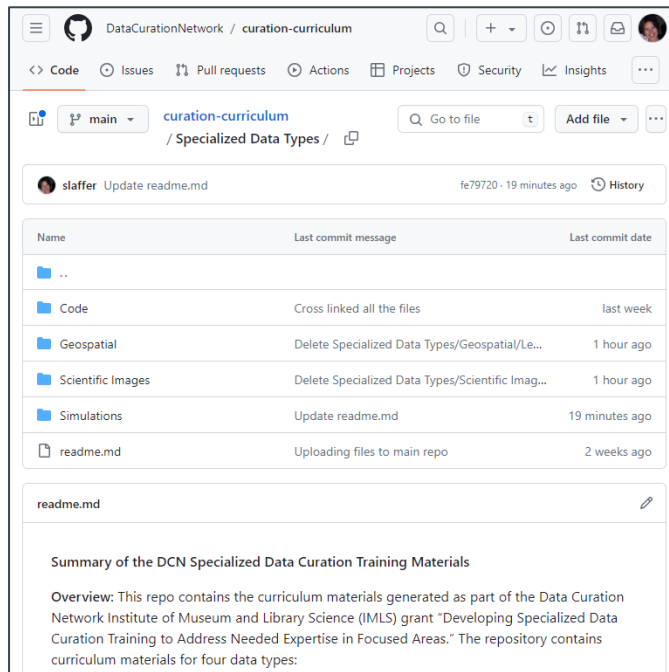
## 3 Key takeaways

---

- A 2 day pilot workshop with 2.5-3 hours per data type was not enough time to fully cover the material and make space for enough active learning
- Expectations regarding the end “product” could have been more formalized from the beginning of the project
- The DCN can be a great “hub” for bringing people together to develop community resources and engage in conversations

# Next Steps

- Dissemination:
  - Posting materials in the [DCN GitHub](#) (public but still under development!)
  - Archiving materials in the [DCN UMN Repository Collection](#)
  - Sharing out via professional networks and external collections
- Exploring opportunities to further test and refine the curricula and engage with the community.



# Thank you!

[Data Curation Network website](#)  
[Project webpage](#)

Contact for questions:  
[sophia.lafferty.hess@duke.edu](mailto:sophia.lafferty.hess@duke.edu)



*This project was made possible in part by the Institute of Museum and Library Services (RE-252343-OLS-22).*



Ethical. Reusable. Better.

**DATA CURATION NETWORK**

[datacurationnetwork.org](http://datacurationnetwork.org)