Journal of eScience Librarianship

Volume 10
Issue 3 *Data Curation in Practice*

Article 14

2021-12-16

Data Soup Webinar, December 16, 2021: hosted by the Data Curation Network and the Journal of eScience Librarianship

Hosted by:

DATA CURATION NETWORK

Journal of eScience Librarianship

Data Soup

Today's Menu

Welcome to Data Soup

Presentations

★ Creating Guidance for Canadian Dataverse Curators: Portage Network's Dataverse Curation Guide

Alexandra Cooper, Michael Steeleworthy, Ève Paquette-Bigras, Erin Clary, Erin MacPherson, Louise Gillis, and Jason Brodeur

★ Active Curation of Large Longitudinal Surveys: A Case Study

Inna Kouper, Karen L. Tucker, Kevin Tharp, Mary Ellen van Booven, and Ashley Clark

Today's Menu

Presentations cont'd

★ Data Curation through Catalogs: A Repository-Independent Model for Data Discovery

Helenmary Sheridan, Anthony J. Dellureficio, Melissa A. Ratajeski, Sara Mannheimer, and Terrie R. Wheeler

Q & A Discussion

DATA CURATION NETWORK

DATA CURATION NETWORK

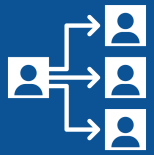
datacurationnetwork.org

Mission

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

Ethical. Reusable. Better.

ALFRED P. SLOAN FOUNDATION



DCN Curation

Curate data as a cross-institutional network of nearly 50 individual experts

DCN Education

Offer professional development opportunities for an emerging data curator professional community

DCN Primers

Create and openly share data curation best practices

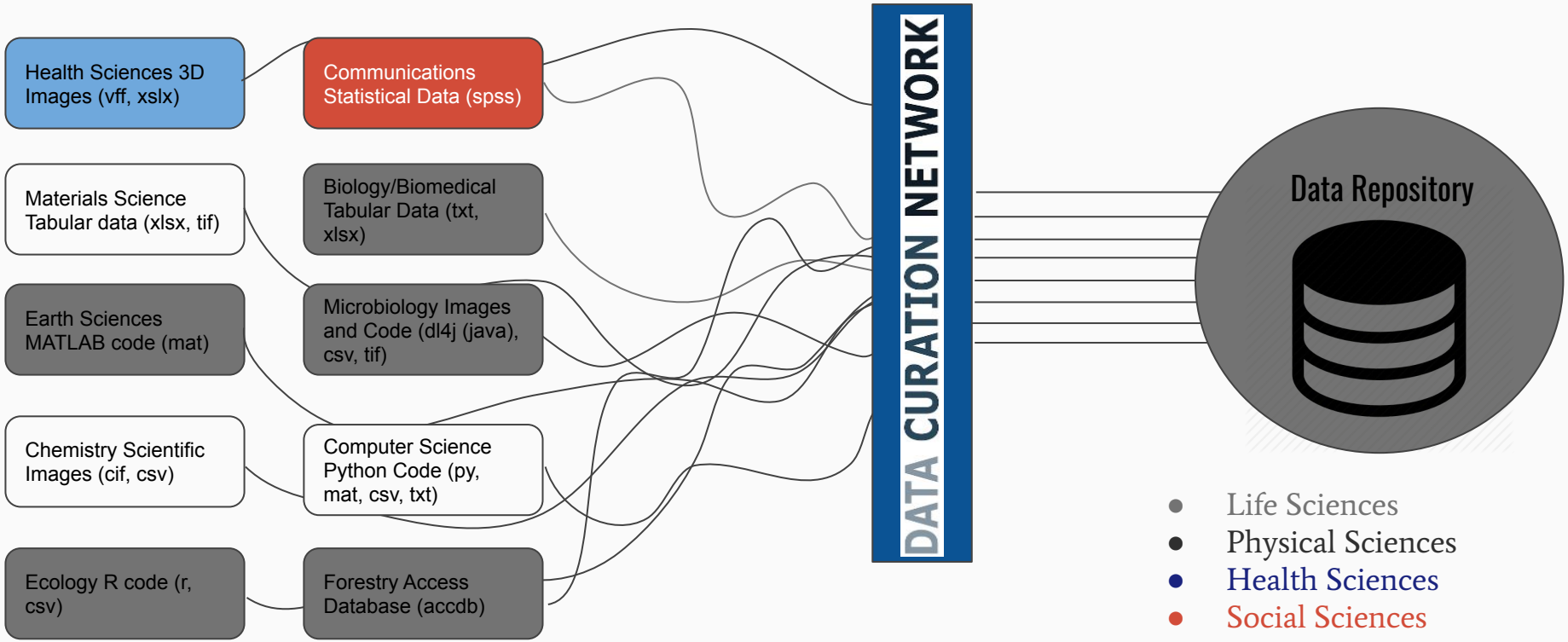
DCN Interest Groups

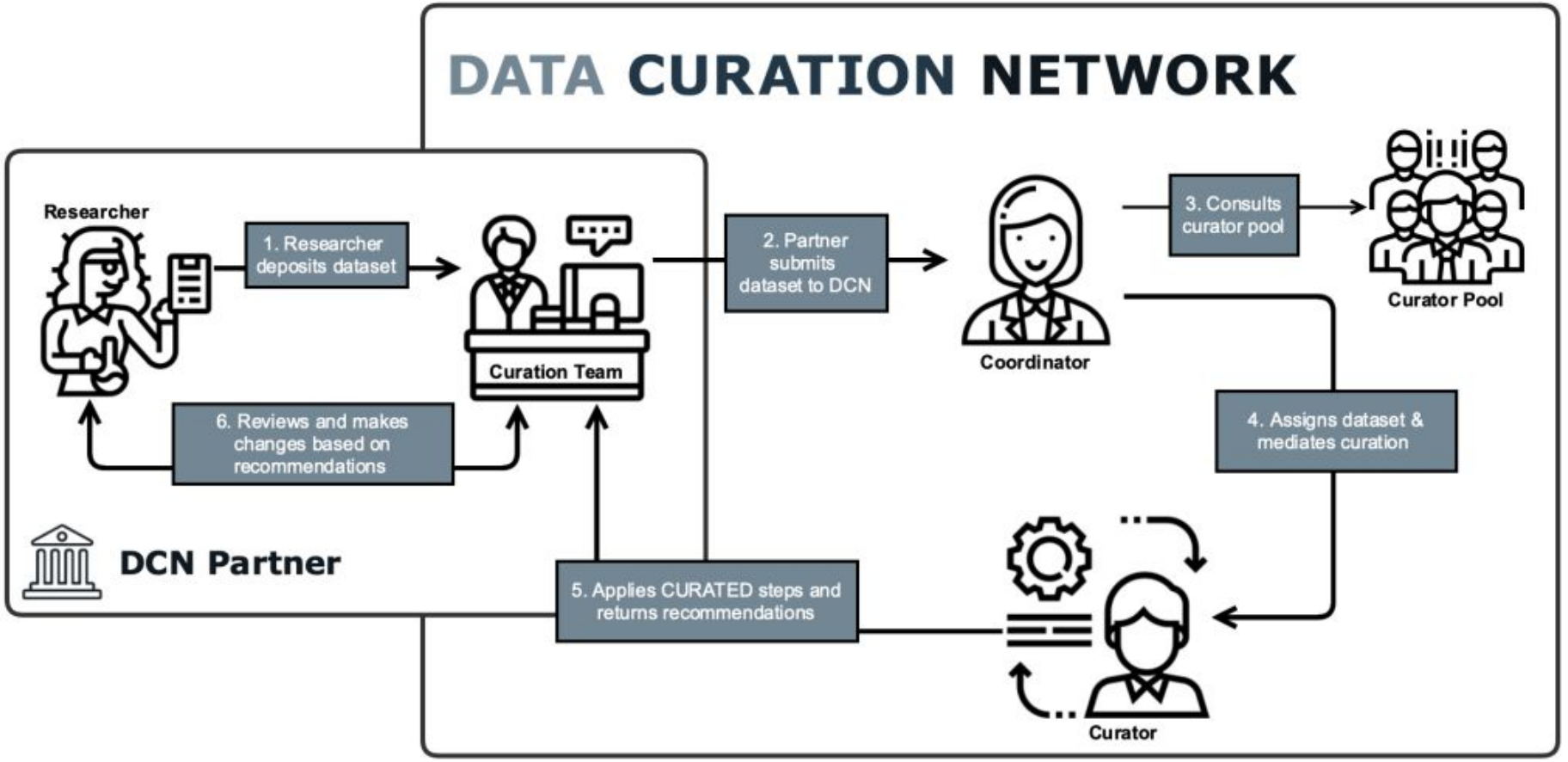
Informal research teams addressing a specific topic: big data, human subjects, racial justice...

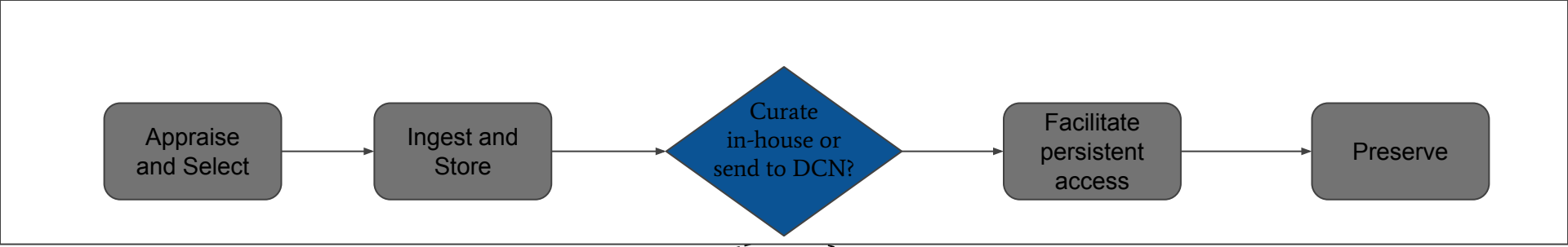
DCN Community

Build community at annual events for discussion, training, and networking.

Curation at Scale




DATA CURATION NETWORK
Researcher
1. Researcher deposits dataset
Curation Team
2. Partner submits dataset to DCN
Coordinator
3. Consults curator pool
Curator Pool
4. Assigns dataset & mediates curation
Curator
5. Applies CURATED steps and returns recommendations
6. Reviews and makes changes based on recommendations
DCN Partner



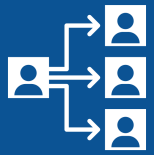
DATA CURATION NETWORK

Review → Assign → **CURATE(D) steps** → Mediate → Approve

DCN Curator Workflow

- **C** Check files and metadata
- **U** Understand and run files
- **R** Request missing information
- **A** Augment metadata
- **T** Transform file formats
- **E** Evaluate for FAIRness

*CURATE(D) = Document curation process throughout



DCN Curation

Curate data as a cross-institutional network of nearly 50 individual experts

DCN Education

Offer professional development opportunities for an emerging data curator professional community

DCN Primers

Create and openly share data curation best practices

DCN Interest Groups

Informal research teams addressing a specific topic: big data, human subjects, racial justice...

DCN Community

Build community at annual events for discussion, training, and networking.

The CURATE(D) Steps

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

https://datacurationnetwork.org/resources/workflows/

Data Curation Primers

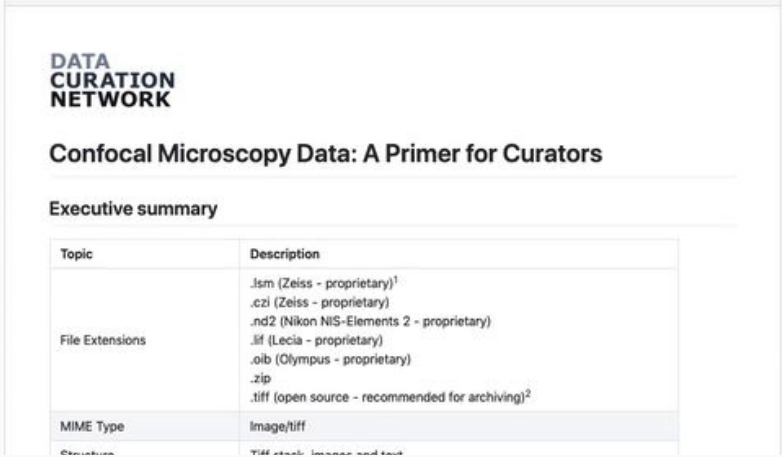
- The project began as a capstone to our Specialized Data Curation Workshops that were generously funded by the Institute of Museum and Library Services (IMLS).

- 27 primers released so far on Github!

Ivey, Susan; Koshoffer, Amy; Sneff, Gretchen; Wang, Huajin. (2019). Confocal Microscopy Images Data Curation Primer. Data Curation Network GitHub Repository.

INSTITUTE of Museum and Library SERVICES

Grant # RE-85-18-004018



DATA CURATION NETWORK

Confocal Microscopy Data: A Primer for Curators

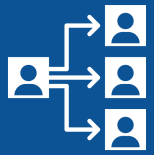
Executive summary

Topic	Description
File Extensions	.lsm (Zeiss - proprietary)[1] .czi (Zeiss - proprietary) .nd2 (Nikon NIS-Elements 2 - proprietary) .lif (Lecia - proprietary) .oib (Olympus - proprietary) .zip .tiff (open source - recommended for archiving)[2]
MIME Type	Image/tiff

Free and open!

Peer-reviewed concise resources to assist the data curator with recommendations for curating specific formats or curation topics!

DATA CURATION NETWORK



DCN Curation

Curate data as a cross-institutional network of nearly 50 individual experts

DCN Education

Offer professional development opportunities for an emerging data curator professional community

DCN Primers

Create and openly share data curation best practices

DCN Interest Groups

Informal research teams addressing a specific topic: big data, human subjects, racial justice...

DCN Community

Build community at annual events for discussion, training, and networking.

Please contact us:

dcn-team@googlegroups.com

http://datacurationnetwork.org

Ethical. Reusable. Better.

Thank You!

DATA CURATION NETWORK

Creating Guidance for Canadian Dataverse Curators: Portage Network's Dataverse Curation Guide

Alexandra Cooper, ***Michael Steeleworthy (Presenter),*** *Ève Paquette-Bigras, Erin Clary, Erin MacPherson, Louise Gillis, Jason Brodeur*

Journal of eScience Librarianship. 2021. 10(3): e1201. https://doi.org/10.7191/jeslib.2021.1201


CARL PORTAGE
NDRIO RDM
ALLIANCE RDM

The need – Le besoin

Provide bilingual curation advice that:

- Is tailored for the Dataverse platform
- Is adaptable to various service models
- Promotes and encourages curation consistency within Canadian Dataverses and other repositories
- Is intended for data curators at all levels of experience, at institutions of all sizes

Offrir des conseils bilingues sur la curation qui :

- S'adaptent à la plateforme Dataverse
- Sont adaptables à divers modèles de services
- Favorisent et encouragent la cohérence de la curation au sein des dépôts Dataverse canadiens et des autres dépôts
- S'adressent aux curateurs de données de tous niveaux d'expérience, dans des établissements de toutes tailles

Modelling our work on the DCN Curation Framework

The WG adapted the Data Curation Network's CURATE(D) Framework to fit the needs of Canadian Dataverse curators, in both official languages

//

Le GT a adapté le cadre CURATE(D) du Data Curation Network pour répondre aux besoins des curateurs de Dataverse canadiens dans les deux langues officielles.

Aligner notre travail sur le cadre de curation du DCN

CURATE(D) → CURATION

C	Check	Consulter
U	Understand	Un peu plus en profondeur
R	Recommend improvements	Recommander
A	Augment	Améliorer
T	Transform	Transposer
I	Include persistent IDs and a reuse licence/agreement	Inclure ID pérennes et les licences/ententes de réutilisation
O	Optimize for FAIRness	Optimiser selon les principes FAIR
N	Note down curation activities	Noter les actions réalisées

How it works – Fonctionnement du guide

Service Scenarios

1. Unmediated curation
2. Semi-mediated curation
3. Mediated curation

Levels of Curation

1. Minimum requirements to make data findable
2. Enhance discoverability and ensure usability
3. Prepare the dataset for reproducibility and preservation.

Scénarios de services

1. Curation non médiatisée
2. Curation semi-médiatisée
3. Curation médiatisée

Niveaux de curation

1. Exigences minimales pour rendre les données trouvables
2. Améliorer la facilité de découverte et assurer la facilité d'utilisation
3. Préparer l'ensemble de données pour la reproductibilité et la préservation

Step 1 Screenshot – Capture d'écran Étape 1

Check / Consulter

At the **Check** step, confirm that all data and metadata components required by the system to successfully publish the deposit are present. If possible, identify any characteristics that may require special consideration (e.g., data with disclosure risk, or data obtained from a third-party source).

Level 1

Yes	No	Some issues	N/A	
❑	❑	❑	❑	The researcher has confirmed that the dataset is free of any licensing and intellectual property issues.
❑	❑	❑	❑	The researcher has confirmed that the dataset is free of any sensitive information (i.e., information that must be safeguarded against unwarranted access or disclosure).
❑	❑	❑	❑	Supporting documentation is included. For example, a codebook, data dictionary, methodology, Readme file, etc.
❑	❑	❑	❑	All files described in the documentation are included in the dataset.

Adopt the Guide – Adopter le guide

Your curation service and your level of curation will not map perfectly. There are dependencies:

- Type of data you are working with
- Institutional policies and strategic aims
- Expertise and ability
- Resource capacity
- Resource demand

The Curation Guide provides advice and step-by-step instructions on how to curate datasets based on the RDM service your institution is providing.

Votre service de curation et votre niveau de curation ne s'arriment pas parfaitement. Il y a des dépendances :

- Type de données avec lesquelles vous travaillez
- Politiques et objectifs stratégiques de l'établissement
- Expertise et capacité
- Capacité des ressources
- Demande de ressources

Le guide de curation fournit des conseils et des instructions étape par étape sur la façon d'organiser les ensembles de données en fonction du service de GDR fourni par votre établissement.

Language Challenges – Défis liés à la langue

- Extra Work for our bilingual colleagues
- The CURATED → CURATION Acronym
  - Finding and deploying a bilingual acronym
  - The acronym can affect the concepts we wish to prioritize, or how we talk about them
- Fully bilingual resources are difficult to find
- Precise, technical vocabulary can be difficult for translation

- Travail supplémentaire pour nos collègues bilingues
- L'acronyme CURATED → CURATION
  - Trouver et diffuser un acronyme bilingue
  - L'acronyme peut affecter les concepts que nous souhaitons prioriser, ou la façon dont nous en parlons.
- Les ressources entièrement bilingues sont difficiles à trouver
- Le vocabulaire précis et technique peut être difficile à traduire

Next Steps – Prochaines étapes

- Adapt based on feedback as Guide is used in practice
- Find more French exemplars and resources
- Add more templates for correspondence
- Create a web-based resource. Easier to:
  - Navigate
  - Adapt locally
  - Update
  - Contribute new content
- Workshop: curate data using the Guide

- Adapter en fonction de la rétroaction lors de l'utilisation pratique du guide
- Trouver plus d'exemples et de ressources en français
- Ajouter d'autres modèles de correspondance
- Créer une ressource en ligne. Plus facile à :
  - Naviguer
  - Adapter localement
  - Mettre à jour
  - Contribuer en ajoutant du contenu
- Atelier : organiser des données avec le Guide

Dataverse Curation Guide Working Group

//

Groupe de travail sur le guide de curation de Dataverse

- Jay Brodeur, McMaster University
- Erin Clary, Digital Research Alliance of Canada
- Alexandra Cooper (co-chair), Queen's University
- Louise Gillis, Dalhousie University
- Erin MacPherson, Dalhousie University
- Ève Paquette-Bigras, Université de Montréal
- Michael Steeleworthy (co-chair), Wilfrid Laurier University
- Lee Wilson, Digital Research Alliance of Canada

Thank you to / merci à
Meghan Goodchild, Queen's University Library and Scholars Portal

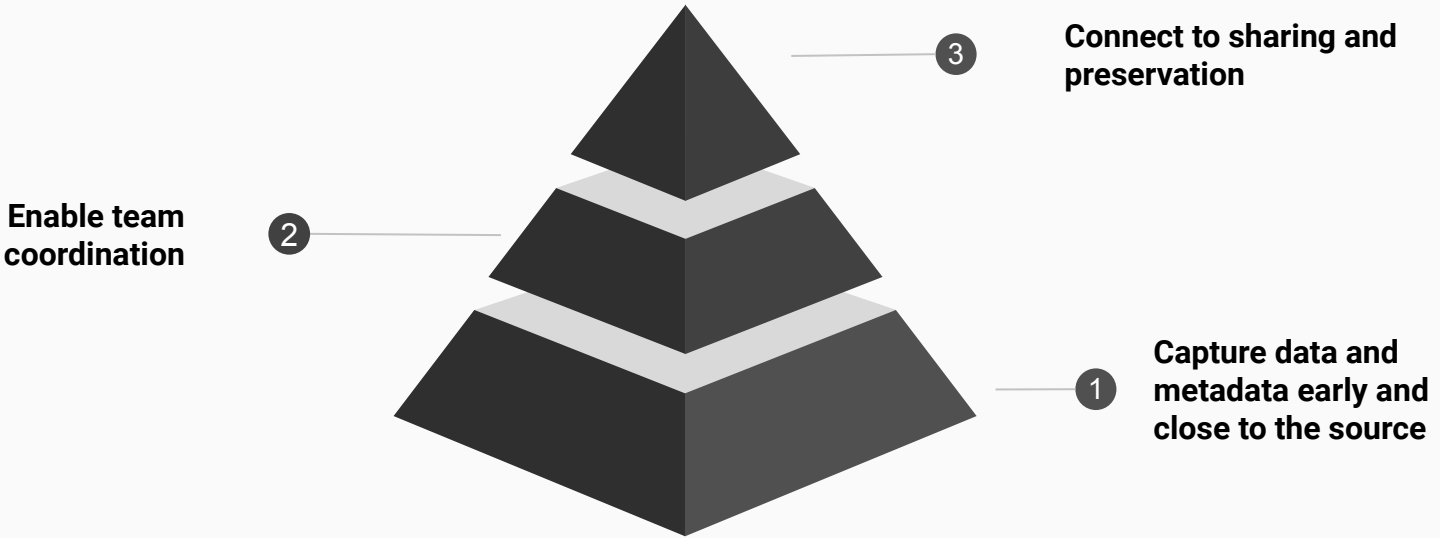
Contact us via Erin Clary, Alliance RDM,
erin.clary@engagedri.ca

Active Curation of Large Longitudinal Surveys

A Case Study

Inna Kouper (presenter),
Karen L. Tucker, Kevin Tharp, Mary Ellen van Booven, Ashley Clark
Center for Survey Research, Indiana University

Active Curation



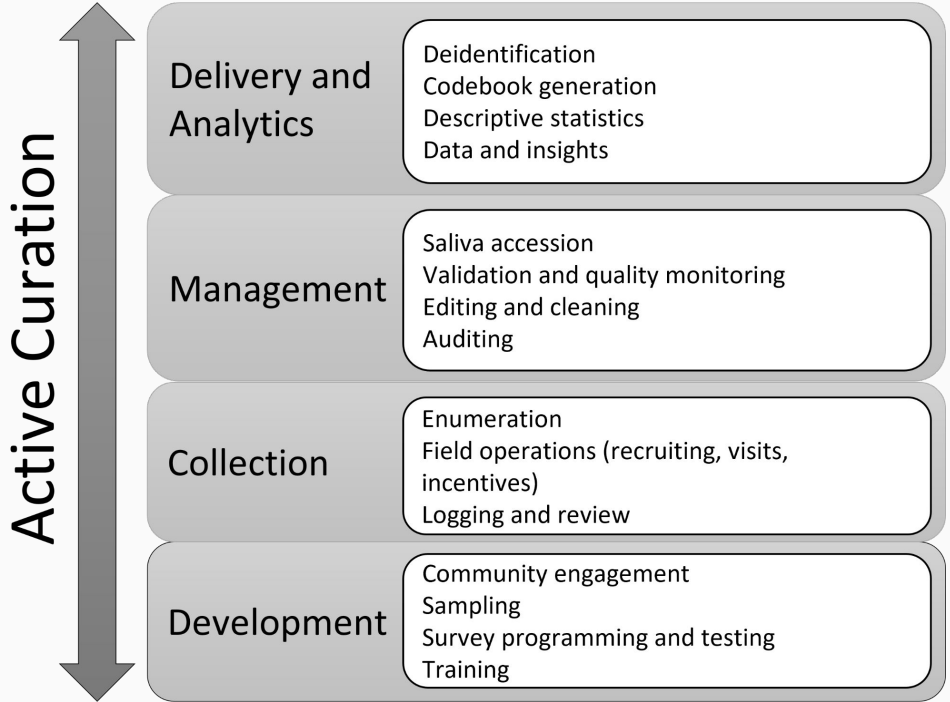
The Survey: P2P Health Interview Study, Indiana University Precision Health Initiative

A representative survey of ~2,000 residents of one state

100s of questions + biometric information (height, weight, blood pressure) + saliva samples

Team includes researchers (the science team) and data managers (the data team)

Active Curation Activities



Curation Objects

Development	• Sample with individual cases • Survey instrument • Pilot data • Software and documentation
Collection	• Study information materials • Cases (information about participants) • Survey outcomes and paradata • Supplementary survey materials
Management	• Survey data • Saliva samples • Survey cost and other indicators • Field interviewer reports
Delivery and Analytics	• Integration workflows • Codebook • Anonymized data • Derived data

Recommendations

Develop a consistent approach to working with active (“live”) data

Design curation for current and future data work

Consider working with humans as part of curation

Develop and adopt standards for active curation

Data Curation through Catalogs: A Repository-Independent Model for Data Discovery

Helenmary Sheridan (presenter), Anthony J. Dellureficio, Melissa A. Ratajeski, Sara Mannheimer, and Terrie R. Wheeler

Why a Catalog?

- Resources: catalogs may be cheaper in staff time and storage costs than a repository
- Scope: catalogs can describe and point to data that would not be included in a repository because of access protocols, researcher requirements, or sensitivity
- Security: can specialize in data governance by integrating with secure data enclaves

Why a Catalog? (cont.)

Better co-location: records can point to data, code, registration, protocol, and more

Efficiency: there are great repositories out there that researchers are already using. Let’s make their submissions more findable!

DCN C-U-R-A-T-E-D Step	Data catalog activity
C: Check data files and read documentation	Somewhat similar. Catalogers read documentation and examine data files to create a high-quality metadata record; however, they do not check files for completion, quality, or file integrity
U: Understand the data	Somewhat similar. Catalogers try to understand the data enough to describe it, but do not comment on the data files unless also offering advice prior to submission to a repository
R: Request missing information or changes	Similar. Catalogers ask for more information to create a metadata record, and may suggest that the authors create documentation
A: Augment with metadata for findability	Very similar. Catalogers create descriptive metadata, incorporating author-supplied terms when possible, and source metadata from controlled vocabularies for interoperability
T: Transform file formats	Does not apply, although catalogers can make recommendations for the data stored elsewhere
E: Evaluate and rate for FAIRness	Does not apply; although catalog staff may have their own checklist for acceptable metadata records, they do not control the data themselves
D: Document throughout curation activities	Somewhat similar. Since no actual datasets are changing hands, submission agreements and chain-of-custody documentation are unnecessary, but institutions may have their own cataloging workflow requirements. The open-source code developed by NYU keeps a basic log of editing dates made to records, and catalogers have the option of adding detailed edit notes

Who We Are: the Data Discovery Collaboration

- NYU Langone
- University of Pittsburgh HSLS
- Memorial Sloan Kettering
- Northwestern University Galter
- Weill Cornell Medicine
- Hofstra/ Northwell
- Montana State University
- University of Maryland HSHSL

Evolution of the DDC

2017	2018-2019	2020+
Formation of the Data Catalog Collaboration Project, a network of health sciences libraries using data catalog software produced at NYU	Increasing interest in methods and philosophy from organizations without catalogs (and no interest in supporting one)	Reconfiguration into the Data Discovery Collaboration, a platform-agnostic organization connecting individuals and institutions who are working to increase the discoverability of data

Some current areas of development

- Representing terms and concepts of interest to basic science researchers, like study organisms: how to model a particular cell line from the kidney tissue of a Sprague-Dewley (Brown Norway) rat?
- Integration of/reference to biomedical registries and taxonomies like SciCrunch or NCBI Taxonomy
- Supporting non-dataset data products like computational models and software code
- Author disambiguation tools for API-assisted metadata ingestion

Thank you!

Helenmary Sheridan, University of Pittsburgh Health Sciences Library System

Anthony J. Dellureficio, Memorial Sloan Kettering Cancer Center

Melissa A. Ratajeski, University of Pittsburgh Health Sciences Library System

Sara Mannheimer, Montana State University

Terrie R. Wheeler, Weill Cornell Medicine

Data Discovery Collaboration: Contact Nicole Contaxis, nicole.contaxis@nyulangone.org

Hosted by:

DATA CURATION NETWORK

Journal of eScience Librarianship

Discussion time!