Today’s Goals and Objectives

- Increase the visibility and use of the existing materials of the DMTC through hands-on work
- Enable interested participants to serve as contributors and reviewers
- Recruit participants in the IMLS project’s Metadata and Assessment Working Groups, and Editorial Team
1. Introduction to the DMTC
2. Demonstration of the DMTC search process and interface
3. Demonstration/tutorial of resource submission process
This project is made possible by a grant from the U.S. Institute of Museum and Library Services (IMLS). IMLS Grant LG-70-18-0092-18. The DMTC is managed by the Earth Science Information Partners, with development support provided by DataONE, and USGS. The views, findings, conclusions or recommendations expressed in this presentation do not necessarily represent those of the IMLS, or the other sponsor organizations.
Data Management Training Clearinghouse Background

- Work Started 2015
- First Content in 2016
- Funded by USGS, DataONE, and the Earth Science Information Partners (ESIP)
Continued Development Supported by IMLS

- July 2018 – Start of 3 year project to enhance the DMTC
- Metadata/Search
- Assessment
- Diversity of Content
- Quantity of Content

Number of Training Resources in the DMTC

Original development
IMLS Project (continuing)
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DMT Clearinghouse functionality...

http://dmtclearinghouse.esipfed.org/
Search Function

Welcome to the DMT Clearinghouse

The Data Management Training (DMT) Clearinghouse is a registry for online learning resources focusing on research data management.

It was created in collaboration between the U.S. Geological Survey’s Community for Data Integration, the Earth Sciences Information Partnership (ESIP), and DataCONE.

For questions or feedback, please contact clearinghouseEd@esipfed.org

Search Function

Search

Browse

Submit

CONNECT WITH US on social networks

SUBSCRIBE to the weekly updates

SEARCH this esip site

Questions or issues with the website? Please contact clearinghouseEd@esipfed.org

ESIP is a collaboration among many partner organizations, activities are sponsored by NASA and NEON and managed by the Foundation for Earth Science.

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Search Function: Example approaches

You filter by pre-set categories ("facets")

You enter your own search terms

Your search terms

DataONE Data Management Module 01: Why Data Management
DataONE Data Management Module 02: Data Sharing
DataONE Data Management Module 03: Data Management Planning
DataONE Data Management Module 04: Management and Governance
DataONE Data Management Module 05: Data Quality Control and Assurance
DataONE Data Management Module 07: Metadata
Mozilla Science Lab's Open Data Primitives
Search Process: Approach 1 = You search using your own terms
Search Process: Approach 2 = You start by checking boxes within the pre-set categories ("filters")
Built-in Search Filters

- **Filter**
  - Framework
  - Keywords
  - Organizations

- **People**
  - Ruth E. Duerr (33)
  - Matthew Mayernik (9)
  - Robert R. Downs (7)
  - Robert Cook (5)
  - Chen Chiu (2)
  - Curt Timmes (2)
  - Jason Kudulis (2)
  - Kathy Martinovich (2)
  - Lois Olsen (2)
  - Mimi Tzeng (2)
  - Suresh K.S. Vannan (2)
  - Tyler Stevens (2)
  - Zanannah Marsh (2)
  - Ben Wheeler (1)
  - Dave Pearsen (1)
  - Dorothea Salo (1)
  - Drew Ignizio (1)
  - Elliot Metsger (1)
  - Emily Fort (1)

- **Publication Date**
  - 2017 (15)
  - 2018 (13)
  - 2016 (9)
  - 2015 (5)
  - 2014 (2)
  - 2010 (1)

- **License**
  - Creative Commons Attribution 3.0 United States - CC BY 3.0 US (35)
  - Creative Commons 0 - CC0 "No Rights Reserved" (Public Domain) (31)
  - Creative Commons Attribution 4.0 International - CC BY 4.0 (15)
  - Creative Commons Attribution-NonCommercial 4.0 International - CC BY-NC 4.0 (5)
  - Creative Commons 1.0 Universal (Public Domain Dedication) (3)
  - Creative Commons Attribution-ShareAlike 4.0 International License - CC BY-SA 4.0 (3)
  - Creative Commons Attribution 3.0 Unported - CC BY 3.0 (1)

- **Cost**
  - Default (101)
  - Fee (3)
Search Process: Approach 3: Combining Approach 1 & Approach 2 ...
Demonstrating Approach 3: Start by entering your own search term...

... then limiting by Keyword filter...

Keywords - short phrases describing what the learning resource is about
Data sharing [X]
Demonstrating Search: finally, limiting even more by the Framework filter...
Demonstrating Search: however, if too precise, you can either Clear all to start over ... or uncheck filters / facets
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Search Results View -- What does it tell you?

You can either click on the Title or the More button to get more info.
Brief Description -- What does it tell you?

ORNL DAAC Data Management Workshops

Educational workshops on various scientific data management best practices designed to (1) introduce new data collectors to best practices in data curation and (2) enhance the skillsets of experienced data providers. New workshops are added as they are made available.

View full description

View resource
Brief Description -- you want to see more about this one! What next?

You can either

Click on the **View full description** to look at the full metadata ... or
the **View resource** button to go directly to the “landing page” of the resource.
ORNL DAAC Data Management Workshops

Key Info

URL - the landing page for the learning resource:
http://daac.ornl.gov/workshops/workshops.shtml

Description - a brief synopsis, abstract or summary of what the learning resource is about:
Educational workshops on various scientific data management best practices designed to (1) introduce new data collectors to best practices in data curation and (2) enhance the skillsets of experienced data providers. New workshops are added as they are made available.

Authoring Organization(s) Name:
NASA ORNL DAAC (Oak Ridge National Laboratory Distributed Active Archive Center)

License - link to legal statement specifying the copyright status of the learning resource:
Creative Commons 1.0 Universal (Public Domain Dedication)

Access Cost:
No fee

Primary language(s) in which the learning resource was originally published or made available:
English

More info about

Keywords - short phrases describing what the learning resource is about:
Appraisal - Core Trustworthy Data Repositories Requirements
Data discovery and identification - Core Trustworthy Data Repositories Requirements
Data integrity and authenticity - Core Trustworthy Data Repositories Requirements
Data quality - Core Trustworthy Data Repositories Requirements
Data reuse - Core Trustworthy Data Repositories Requirements
Expert guidance - Core Trustworthy Data Repositories Requirements
Preservation plan - Core Trustworthy Data Repositories Requirements
Full Description – 2 of 2

| Subject Discipline - subject domain(s) toward which the learning resource is targeted: | Engineering: Aerospace Engineering  
| Physical Sciences and Mathematics: Earth Sciences  
| Physical Sciences and Mathematics: Environmental Sciences |
| Publisher - organization credited with publishing or broadcasting the learning resource: | NASA ORNL DAAC (Oak Ridge National Laboratory Distributed Active Archive Center) |
| Media Type - designation of the form in which the content of the learning resource is represented, e.g., moving image: | Collection - a group or set of items that comprise a single learning resource, e.g., a PDF version of a slide presentation, an audio file of the presentation and a textual representation of the oral transcription of the presentation. |
| Contributor Organization(s): | Name:  
| ICSDU - World Data System (WDS)  
| Type:  
| Endorser |
| Contact Organization(s): | NASA ORNL DAAC (Oak Ridge National Laboratory Distributed Active Archive Center) |

### Educational Info

| Purpose - primary educational reason for which the learning resource was created: | Professional Development - increasing knowledge and capabilities related to managing the data produced, used or re-used, curated and/or archived. |
| Learning Resource Type - category of the learning resource from the point of view of a professional educator: | Lesson - detailed description of an element of instruction in a course, contained in a unit of one or more lessons, and used by a teacher to guide class instruction. |
| Target Audience - intended audience for which the learning resource was created: | Data supporter  
| Early-career Research Scientist  
| Research Scientist |
| Intended time to complete - approximate amount of time the average student will take to complete the learning resource: | More than 1 hour (but less than 1 day) |
| Framework - a community-based organization plan or set of steps for education or training: | ICSU - World Data System Training Resources Guide |
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Current Publication Process

- We invite community volunteers who wish to submit and/or review descriptions of educational resources to the DMTC using existing:
  - Selection Criteria:
  - Tutorial for Submitting Descriptions to the DMTC with suggested workflow:
  - Questions / Interest: email us at: clearinghouseEd@dmtclearinghouse.esipfed.org
“Submit” Function
EZ “Submit” Form – no login required

Title *

URL - the landing page for the learning resource
https://oedbreeze.cr.usgs.gov/dm-value/

Access Cost *
- No fee
- Fee

Submission Contact Name *

Submission Contact Email Address *
Address will not be shared without permission

Email address of person submitting the information about the learning resource that is to be added to the DMT Clearinghouse. The person will not be contacted unless there is some question about the resource from a reviewer or editor, or to be notified that the submission has been accepted.
“Submit” Recommended Information submitted, reviewed & published by logged in user:

- Names, Personal & Organizational for Authors and Contributors
- Descriptive Information
- Educational Context for the Resource
### Current Clearinghouse publication process by role of logged-in user

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<thead>
<tr>
<th>Task</th>
<th>Submitter</th>
<th>Reviewer</th>
<th>Editor</th>
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<tr>
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<td>✓</td>
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<tr>
<td>Submit</td>
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<tr>
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<tr>
<td>Review / Edit metadata submitted</td>
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<tr>
<td>Save (= Re-submit)</td>
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<td>Publish</td>
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<td>Update/Maintain (e.g., correct URLs, typos, etc.)</td>
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Add to Controlled Vocabularies by role of logged-in user

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### Seeking Learning Resource Types, such as:

- **Course** – series of units and lessons used to teach the skills and knowledge required by its curriculum.
- **Unit** – long-range plan of instruction on a particular concept containing multiple, related lessons.
- **Lesson** – detailed description of an element of instruction in a course, [could be] contained in a unit of one or more lessons, and used by a teacher to guide class instruction. Example: presentation slides on a topic.
- **Demonstration / Simulation** – imitation or modeling of a real-world process.
- **Learning Activity** – guided or unguided activity engaged in by a learner to acquire skills, concepts, or knowledge that may or may not be defined by a lesson. Examples: data exercises, data recipes.
- **Educator Curriculum Guide** – document that defines what concepts should be taught and/or how a concept should be taught effectively.
- **Images / Visuals** – media, including but not limited to pictures, graphics, diagrams, figures, illustrations, charts, and maps.
- **Primary Source** – artifact, document, recording, or other source of information created at the time under study and provides first-hand testimony or direct evidence concerning a topic under investigation.
- **Rubric Scoring Guide** – document or guide used to delineate consistent criteria for grading.
- **Text** – body of a printed work, to include reading passages.
- **Textbook** – digital or analog book used as a standard source of information on a particular subject.
Seeking educational resource types, continued:

- **Assessment** – the evaluation, measurement and documentation of the skills or knowledge about data management.
  - **Interim / Summative Assessment** – Instrument used to evaluate student learning at the end of an instructional unit by comparing it against some standard or benchmark.
  - **Self-assessment** – in which a user gathers information about and reflects on his or her own knowledge, skills, learning, or attitudes.
  - **Alternate Assessment** – used to evaluate the performance of students who are unable to participate in general assessment even with accommodations.
  - **Assessment Item** – specific part of an assessment that, when answered by a learner, is used to determine whether a learning objective has been achieved.
  - **Formative Assessment** – process used during instruction to adjust ongoing teaching and learning activities and to improve students’ achievement of intended instructional outcomes.
Data Management Training Clearinghouse

Questions and Evaluation

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How you can contribute

**Metadata & Search Working Group** - assessing the current metadata schema used in the Clearinghouse and the search and browse capabilities built upon those metadata.

**Assessment Working Group** - prioritizing areas for assessment of the Clearinghouse and the training resources.

**Editorial Team** - contributing to the publication workflow for submitted training material metadata.

**Contributing New Materials** - identifying and providing metadata for integration into the Clearinghouse.

**Presentation Evaluation:**