



Data Management Training Clearinghouse

An Introduction

Karl Benedict (University of New Mexico) &
Nancy Hoebelheinrich (Knowledge Motifs LLC)



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.

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*

Image from Shutterstock

Presentation Outline



1. Introduction to the DMTC
2. Demonstration of the DMTC search process and interface
3. Demonstration/tutorial of resource submission process

Image from Shutterstock

Data Management Training Clearinghouse

Background



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Data Management Training Clearinghouse Background

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

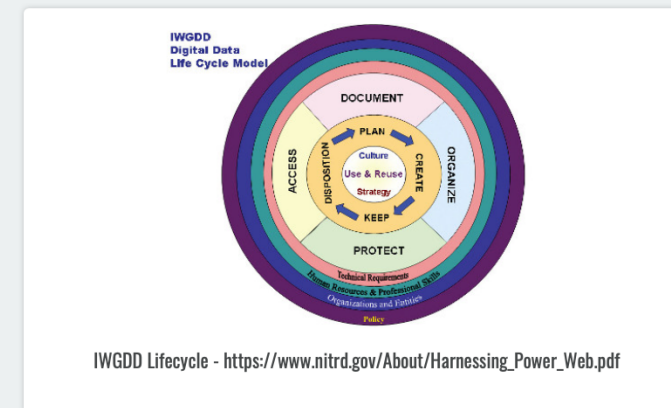
Welcome to the DMT Clearinghouse

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

It was created in a collaboration between the [U.S. Geological Survey's Community for Data Integration](#), the [Earth Sciences Information Partnership \(ESIP\)](#), and [DataONE](#).

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

[Read More](#)



Search

Find learning resources by keyword, name, date, license and cost

Search

Browse

See a list of learning resources by educational framework

Browse

Submit

Submit your learning resources to the Clearinghouse

Submit

CONNECT WITH US

on social networks



SUBSCRIBE

to the monday updates

join

SEARCH

this esip site

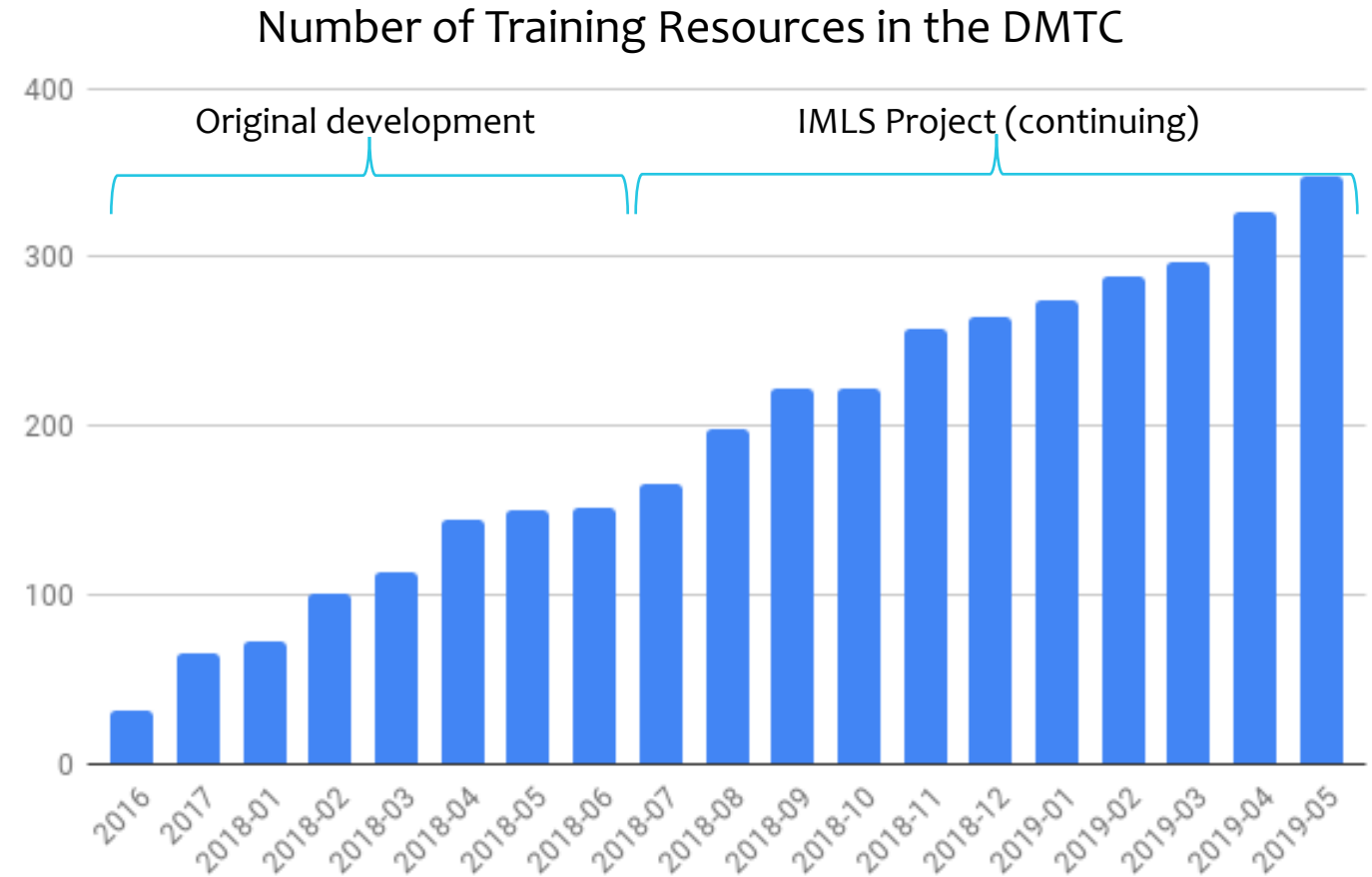
search

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 [NOAA](#) and managed by the [Foundation for Earth Science](#).

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*





Knowledge Motifs LLC
Mapping sensible data relationships



Data Management Training Clearinghouse

Search Process Workflow to Education Publication Workflow



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DMT Clearinghouse functionality...

The screenshot shows the homepage of the DMT Clearinghouse. At the top is a dark navigation bar with the ESIP logo and the text "Data Management Training EXPLORE". Navigation links include Home, Browse, Search, Submit, Help, and About. A "Log in" link is on the right. The main content area features a "Welcome to the DMT Clearinghouse" section with introductory text and a "Read More" button. To the right is a diagram titled "CDI SSF Components" showing a layered structure: Knowledge (Understanding of Earth Systems), Information (with sub-components like Planning, Applications, Web Services, Semantics, and Data Management), and Data (with sub-components like Science Data, Library, Metadata, and Knowledge Management). Below the diagram is a link to "CDI SSF Components - https://www2.usgs.gov/cdi/cdi-ssf/cdi-ssf-components.pdf". Three red stars are placed over the "Search", "Browse", and "Submit" buttons. The bottom of the page has a dark footer with social media links, a "SUBSCRIBE" form, and a "SEARCH" form.

ESIP Data Management Training Home Browse Search Submit Help - About Log in

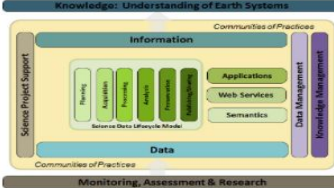
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[Read More](#)



CDI SSF Components - <https://www2.usgs.gov/cdi/cdi-ssf/cdi-ssf-components.pdf>

Search

Find learning resources by keyword, name, date, license and cost

Browse

See a list of learning resources by educational framework

Submit

Submit your learning resources to the Clearinghouse

CONNECT WITH US
on social networks

SUBSCRIBE
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SEARCH
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ESIP is a collaboration among many partner organizations, activities are sponsored by NASA and NOAA and managed by the Foundation for Earth Science. ESIP provides award and career opportunities for RSES. We organize regular events to

<http://dmtclearinghouse.esipfed.org/>

Search Function

The screenshot shows the homepage of the Data Management Training (DMT) Clearinghouse. The URL in the browser is dmtclearinghouse.esipfed.org. The navigation bar includes links for Home, Browse, Search, and Help, with the Search link circled in red. The main content area features a welcome message, a description of the clearinghouse, and a diagram of the DCC Lifecycle. Below this, there are three main action buttons: Search, Browse, and Submit. The Search button is also circled in red. The footer contains social media links, a subscribe form, and a search bar.

Welcome to the DMT Clearinghouse

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[Read More](#)

Search
Find learning resources by keyword, name, date, license and cost
 [Search](#)

Browse
View a list of learning resources by educational framework
[Browse](#)

Submit
Submit your learning resources to the Clearinghouse (login required)
[Submit](#)

CONNECT WITH US
on social networks
[f](#) [t](#) [r](#)

SUBSCRIBE
to the monday updates
 [join](#)

SEARCH
this esip site
 [search](#)

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

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Search Function: Example approaches

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



Filter

Framework

- ESIP Data Management for Scientists Short Course (33)
- USGS Science Support Framework (18)
- DataONE Education Modules (10)
- ICSU - World Data System Training Resources Guide (8)
- The Digital Preservation Network (7)

Keywords

- Data management (32)
- Data sharing (27)
- Data management planning (23)
- Data preservation (15)
- Data life cycle (11)
- Data citation (10)
- Data reuse - Core Trustworthy Data Repositories Requirements (10)
- Community standards (9)
- Data access methods (9)
- Metadata (9)

[Show more](#)

Organizations

- Federation of Earth Science Information Partners (ESIP Federation) (34)
- U.S. Geological Survey (16)
- DataONE (10)

You enter your own
search terms



Your search terms [Search](#)

Your search 104 results [Clear all](#)

DataONE Data Management Module 02: Data Sharing [More](#)

DataONE Education Modules May 2012

Analyze Assure Collect Describe Discover Integrate Plan Preserve

DataONE Data Management Module 03: Data Management Planning [More](#)

DataONE Education Modules May 2012

Plan

DataONE Data Management Module 01: Why Data Management [More](#)

DataONE Education Modules May 2012

Analyze Assure Collect Describe Discover Integrate Plan Preserve

DataONE Data Management Module 05: Data Quality Control and Assurance [More](#)

DataONE Education Modules May 2012

Assure Collect

DataONE Data Management Module 07: Metadata [More](#)

DataONE Education Modules May 2012

Describe

Mozilla Science Lab's Open Data Primers [More](#)

Search Process: Approach 1 = You search using your own terms

The screenshot shows a search interface with a left sidebar and a main results area. Red circles highlight the search input field, the search button, the search results bar, and the results count.

Filter

Framework

- ESIP Data Management for Scientists Short Course (33)
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[Show more](#)

Organizations

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Your search terms

Search

Your search

104 results

[Clear all](#)

DataONE Data Management Module 02: Data Sharing [More](#)

DataONE Education Modules May 2012

Analyze Assure Collect Describe Discover Integrate Plan Preserve

DataONE Data Management Module 03: Data Management Planning [More](#)

DataONE Education Modules May 2012

Plan

DataONE Data Management Module 01: Why Data Management [More](#)

DataONE Education Modules May 2012

Analyze Assure Collect Describe Discover Integrate Plan Preserve

DataONE Data Management Module 05: Data Quality Control and Assurance [More](#)

DataONE Education Modules May 2012

Assure Collect

DataONE Data Management Module 07: Metadata [More](#)

DataONE Education Modules May 2012

Describe

Mozilla Science Lab's Open Data Primers [More](#)

Search Process: Approach 2 = You start by checking boxes within the pre-set categories ("filters")

The screenshot displays a search interface with a left sidebar and a main content area. The sidebar contains two filter sections: 'Filter' (circled in red) and 'Keywords'. The 'Filter' section lists categories like 'Framework' and 'Keywords' with associated counts. The 'Keywords' section lists specific topics like 'Data management' and 'Data sharing' with counts. The main content area features a search bar, a 'Search' button, and a 'Your search' header indicating 211 results. Below this, several search results are listed, each with a title, a 'More' button, a Creative Commons license icon, a document icon, a title, and a date.

Filter

Framework

- ICSU - World Data System Training Resources Guide (76)
- ESIP Data Management for Scientists Short Course (33)
- USGS Science Support Framework (19)
- FAIR Data Principles (12)
- DataONE Education Modules (10)
- The Digital Preservation Network (7)

Keywords

- Data management (82)
- Data management planning (59)
- Data sharing (55)
- Data access (49)
- Data reuse - Core Trustworthy Data Repositories Requirements (40)
- Data collection (32)
- Data preservation (31)
- Data publication (31)
- Accessible data - FAIR Data Principle (29)
- Open data (28)

[Show more](#)

Your search terms

Your search 211 results

Creating Documentation and Metadata: Creating a Citation for Your Data

ESIP Data Management for Scientists Short Course September 2012

Local Data Management - Data Formats: Using Self-describing Data Formats

ESIP Data Management for Scientists Short Course January 2013

Responsible Data Use: Data Restrictions

ESIP Data Management for Scientists Short Course February 2013

Preserving the Scientific Record: Establishing Relationships with Archives

ESIP Data Management for Scientists Short Course October 2012

Preserving the Scientific Record: Preserving a Record of Environmental Change

ESIP Data Management for Scientists Short Course October 2012

Built-in Search Filters

Filter

Framework

- Management for Scientists Short Course (33)
- USGS Science Support Framework (18)
- DataONE Education Modules (10)
- ICSU - World Data System Training Resources Guide (8)
- The Digital Preservation Network (7)

Keywords

- Management (32)
- Data sharing (27)
- Data management planning (23)
- Data preservation (15)
- Data life cycle (11)
- Data citation (10)
- Data reuse - Core Trustworthy Data Repositories Requirements (10)
- Community standards (9)
- Data access methods (9)
- Metadata (9)

Show more

Organizations

- Earth Science Information Partners (ESIP Federation) (34)
- U.S. Geological Survey (16)
- DataONE (10)

People

- J. Hoebelheinrich (33)
- Ruth E. Duerr (33)
- Matthew Mayernik (9)
- Robert R. Downs (7)
- Robert Cook (5)
- Chen Chiu (2)
- Curt Tilmes (2)
- Jason Kudulis (2)
- Kathy Martinolich (2)
- Lola Olsen (2)
- Mimi Tzeng (2)
- Suresh K.S. Vannan (2)
- Tyler Stevens (2)
- Zannah Marsh (2)
- Ben Wheeler (1)
- Dave Fearon (1)
- Dorothea Salo (1)
- Drew Ignizio (1)
- Elliot Metsger (1)
- Emily Fort (1)

Show more

Publication Date

- 2018 (1)
- 2017 (15)
- 2013 (13)
- 2015 (9)
- 2016 (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

- No fee (101)
- Fee (3)

Search Process: Approach 3: Combining Approach 1 & Approach 2 ...



Demonstrating Approach 3: Start by entering your own search term...

A search bar contains the text "sharing practices" (circled in red). To its right is a blue "Search" button. Below the search bar is a green banner that reads "Your search sharing practices" (circled in red) and "89 results" (circled in red). A "Clear all" button is visible in the bottom right of the banner. The word "Yikes!" is written in blue text above the banner.

... then limiting by Keyword filter...

The search results page shows a sidebar on the left with a "Keywords" section (circled in red) where "Data sharing" is selected. The main content area shows a green banner with "Your search sharing practices" (circled in red) and "26 results" (circled in red). Below the banner, a "Keywords - short phrases describing what the learning resource is about" filter is active, showing "Data sharing [X]". The word "More precise!" is written in blue text above the banner. Two search results are visible: "Best practices for preparing data to share and preserve" and "Research Data Management and Sharing MOOC".

Demonstrating Search: finally, limiting even more by the Framework filter...

The screenshot displays a search interface with the following elements:

- Search Bar:** Contains the text "sharing practices" and a blue "Search" button.
- Filter Panel (Left):**
 - Framework:** A red circle highlights the "Framework" section, which includes "(-) USGS Science Support Framework".
 - USGS Framework Steps:** A red circle highlights this section, which includes "Preserve (1)" and "Publish/Share (1)".
 - Keywords:** Includes "Data sharing" (checked) and "Data preservation (1)".
- Search Results:**
 - A green banner at the top shows "Your search sharing practices" and "1 result" (circled in red).
 - Below the banner, there are tags for "Framework - A community-based organization plan or set of steps for education or training" and "Keywords - short phrases describing what the learning resource is about".
 - The main result is "Best practices for preparing data to share and preserve" (circled in red), with a "More" button.
 - At the bottom of the result, there are icons for "PUBLIC DOMAIN" and "USGS Science Support Framework", and the date "November 2015".

Demonstrating Search: however, if too precise, you can either *Clear all* to start over ... or uncheck filters / facets

The screenshot shows a search interface with a search bar containing 'sharing practices' and a 'Search' button. On the left, there is a 'Filter' sidebar with three sections: 'Framework', 'USGS Framework Steps', and 'Keywords'. The 'Framework' section lists several items, including 'USGS Science Support Framework'. The 'USGS Framework Steps' section lists 'Preserve (1)' and 'Publish/Share (1)'. The 'Keywords' section has 'Data sharing' checked and 'Data preservation (1)' unchecked. The search results area shows 'Your search sharing practices' with '1 result'. The result is 'Framework - A community-based organization plan or set of steps for education or training' from the 'USGS Science Support Framework'. A red circle highlights the 'Clear all' button next to this result. Below the result is a 'More' button. The result text includes 'Keywords - short phrases describing what the learning resource is about' and 'Data sharing [X]'. At the bottom of the result, there are icons for 'PUBLIC DOMAIN' and 'USGS Science Support Framework', and the date 'November 2015'.

Filter

Framework
(-) USGS Science Support Framework
ICSU - World Data System Training Resources Guide (11)
DataONE Education Modules (2)
ESIP Data Management for Scientists Short Course (2)
FAIR Data Principles (2)

USGS Framework Steps
Preserve (1)
Publish/Share (1)

Keywords
 Data sharing
 Data preservation (1)

sharing practices **Search**

Your search *sharing practices* **1 result**

Framework - A community-based organization plan or set of steps for education or training USGS Science Support Framework **Clear all**

Keywords - short phrases describing what the learning resource is about Data sharing [X]

Best practices for preparing data to share and preserve **More**

... is to provide guidance on fundamental data management practices that investigators should perform during the course of data ... In addition, I will briefly discuss data curation practices that are done by archives to ensure that data can be discovered and used in the future. By following the practices, data will be less prone to error, more efficiently structured for ...

PUBLIC DOMAIN USGS Science Support Framework November 2015



Data Management Training Clearinghouse

Search Results



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Search Results View -- What does it tell you?

Browse

Framework

- DataONE Education Modules
- ESIP Data Management for Scientists Short Course
- ICSU - World Data System Training Resources Guide
- The Digital Preservation Network
- USGS Science Support Framework

You can either click on the Title or the More button to get more info

ICSU

Open Teacher Information Management Courses

[More ▾](#)

 ICSU - World Data System Training Resources Guide

Essentials 4 Data Support


[More ▾](#)

 ICSU - World Data System Training Resources Guide

August 2017

Open Teacher Data Management Courses

[More ▾](#)

 ICSU - World Data System Training Resources Guide

ISRIC Spring School

[More ▾](#)

 ICSU - World Data System Training Resources Guide

ISRIC - World Soil Information Educational Videos

[More ▾](#)

 ICSU - World Data System Training Resources Guide

NASA Earthdata Webinar Series

[More ▾](#)

 ICSU - World Data System Training Resources Guide

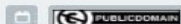
ORNL DAAC Data Management Workshops

[More ▾](#)

 ICSU - World Data System Training Resources Guide

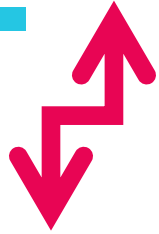
Environmental Data Management

[More ▾](#)

 ICSU - World Data System Training Resources Guide

May 2014

Brief Description -- What does it tell you?



ORNL DAAC Data Management Workshops

More ▾

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](#) ↗

 PUBLIC DOMAIN  ICSU - World Data System Training Resources Guide

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 More ▾

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 ↗](#)

PUBLICDOMAIN ICSU - World Data System Training Resources Guide

Full Description – 1 of 2

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:

ICSU - 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





Data Management Training Clearinghouse

Resource Description & Publication Workflow



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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:
 - https://github.com/imls-dmt/resources-workflow/blob/master/Nov17_2018_SelectionCriteria.pdf
 - Tutorial for Submitting Descriptions to the DMTC with suggested workflow:
 - <https://github.com/imls-dmt/resources-workflow/blob/master/Tutorial%20for%20Submitting%20Educational%20Resource%20Metadata.pdf>
 - Metadata input form – using the Dublin Core maintained, and Schema.org endorsed Learning Resource Metadata Initiative schema: <http://dublincore.org/specifications/lrmi/>
 - Questions / Interest: email us at: clearinghouseEd@dmclearinghouse.esipfed.org
 - Provide contact information and specific interest in the presentation feedback form: <http://bit.ly/2019-ESA-feedback>

"Submit" Function

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EZ “Submit” Form – no login required

Title *

URL - the landing page for the learning resource


Access Cost *

- No fee
- Fee

Submission Contact Name *

Submission Contact Email Address *

Email address of person submitting the information about the learning resources 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

Task	Submitter	Reviewer	Editor
ID resource	✓	✓	✓
Fill out Required Info	✓	✓	✓
Fill out Recommended Info	✓	✓	✓
Save	✓	✓	✓
Add to Controlled Vocabularies (varies by role)	✓	✓	✓
Submit	✓	✓	✓
Evaluate Appropriateness of Adding Resource		✓	✓
Review / Edit metadata submitted		✓	✓
Save (= Re-submit)			✓
Publish		✓	✓
Update/Maintain (e.g., correct URLs, typos, etc.)			

Add to Controlled Vocabularies by role of logged-in user

Task	Submitter	Reviewer	Editor
Personal Names	✓	✓	✓
Organizational Names	✓	✓	✓
Keywords	✓	✓	✓
Save	✓	✓	✓
Subject Disciplines			✓
Target Audiences			✓
Media Type			✓
Learning Resource Type			✓

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



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.

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:

<http://bit.ly/2019-ESA-feedback>