Data Help Desk

Get Answers to Your Data Management Questions: Workshops, Demos and More ...

Booth 219-223 http://bit.ly/DHDESA19 #datahelpdesk

Data Management Skillbuilding Hub

dataoneorg.github.io/Education/

NCEAS National Center for Ecological Analysis and Synthesis

DataONE

Data Management Skillbuilding Hub

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The Data Management Skillbuilding Hub contains resources for better data management and is open to community input and update. These resources are adaptable across a range of contexts and intended for use by researchers, teachers, librarians, or anyone who wants to learn better data management practices. Each tile below links to community contributed education materials, such as best practices and lesson plans

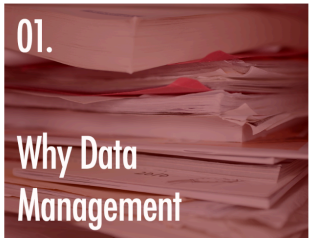
The resources presented on the Data Management Skillbuilding Hub can be updated by users to promote a current, well-maintained, and sustainable educational tool. Learn more about how you can contribute.

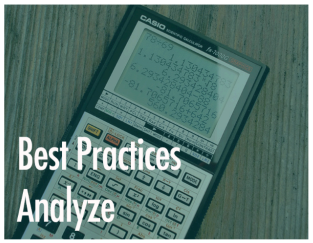
Using This Resource

Click individual tiles to learn more and use each resource. You can limit resources by content type and Data Life Cycle stage. Comprehensive information is available in the FAQ.

» Filter by content type: ALL | TEACHING MODULE | BEST PRACTICE | VIDEO

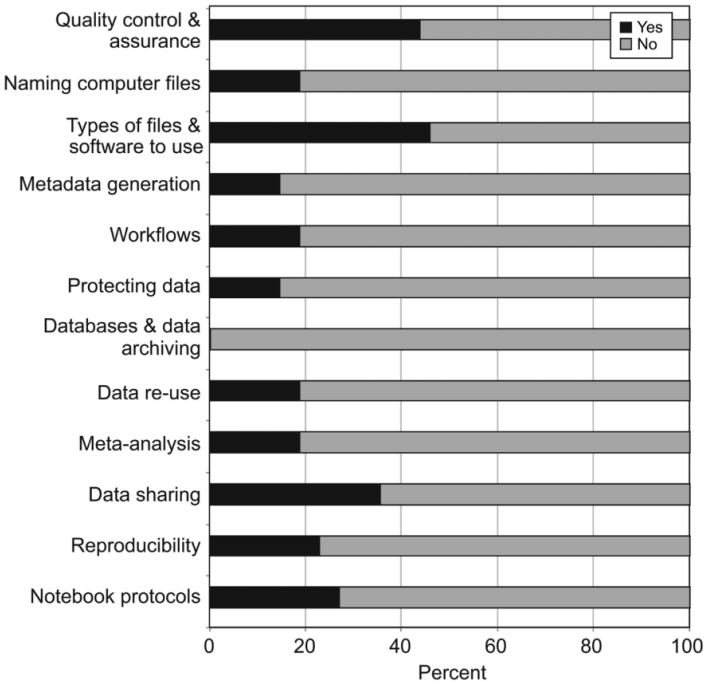
» Filter by stage of the Data Life Cycle: All





Status of Data Management Education

Survey of Ecology Courses



Percent of ecology courses that address and/or teach the data management topics listed

Strasser and Hampton 2012

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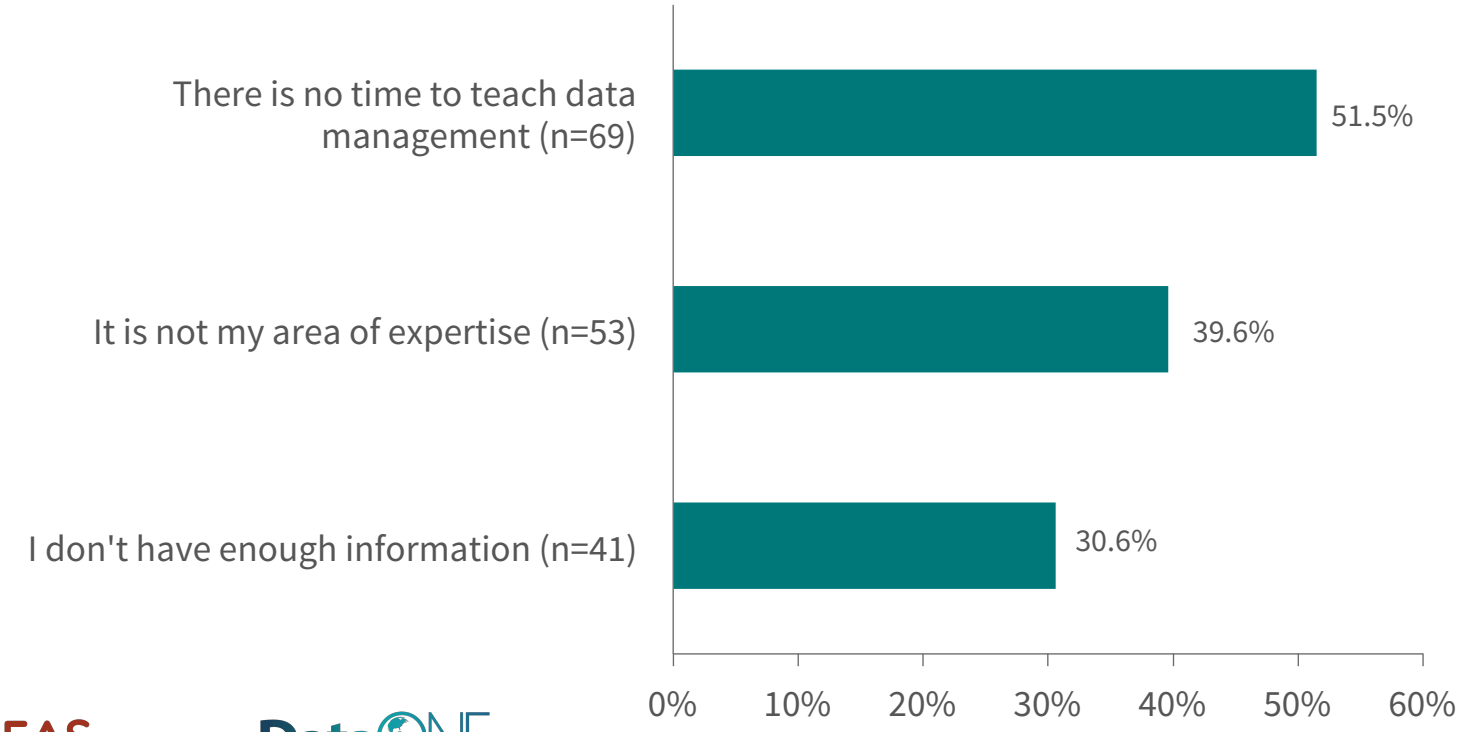
Challenges in Data Management Training

Survey of Educators



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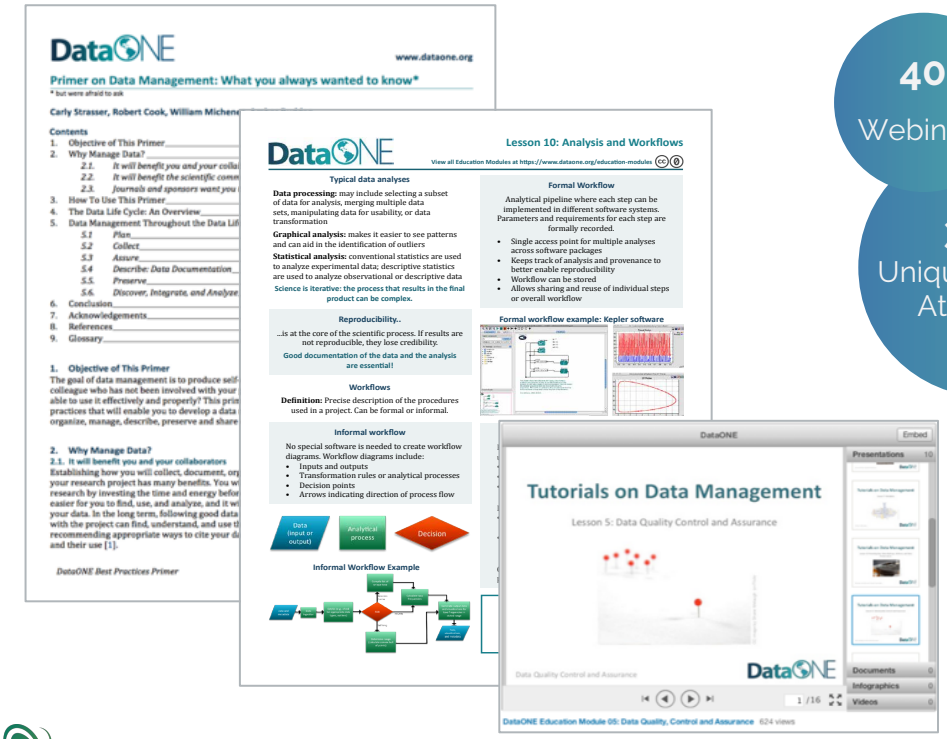
Training

Leadership in Data Management Education



40 Webinars

3421 Unique Webinar Attendees

Greg Wilson

Liz Ferguson

Stephanie Hampton

Fernando Pérez

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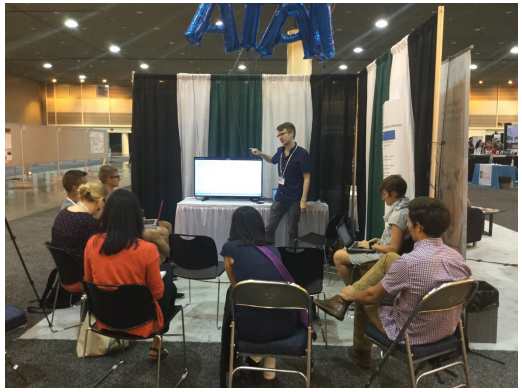
Training

Training Events



NCEAS

NSF Arctic Data Center

AGU American Geophysical Union

Ecological Society of America esa

"Thanking my lucky stars for @DataONEorg education modules this week! Data entry exercise adapted nicely for online participation."

"Great collection of free education material on data management by @DataONEorg."

"Thank you! I love these materials."

"Thanks @DataONEorg for making these education modules available CCO!"

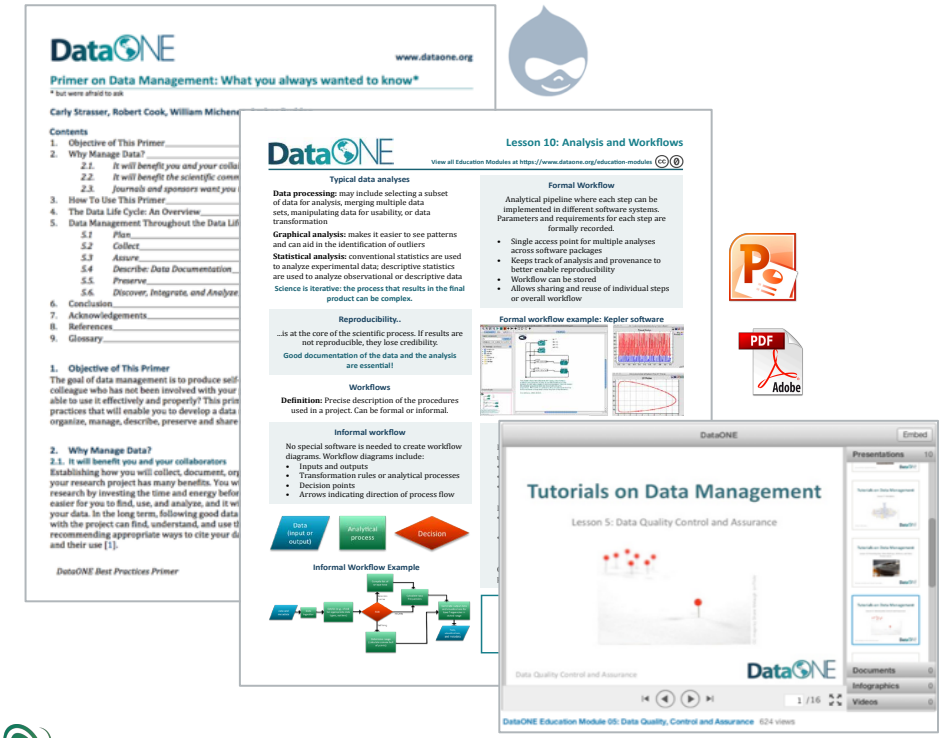
"@DataONEorg website has great education resources on managing data w/ best practices."

"Awesome presentations about data management. The Metadata module is great!! I like them. Thanks @DataONEorg"

Community Perspectives

Education Materials

The Evolution of Resources



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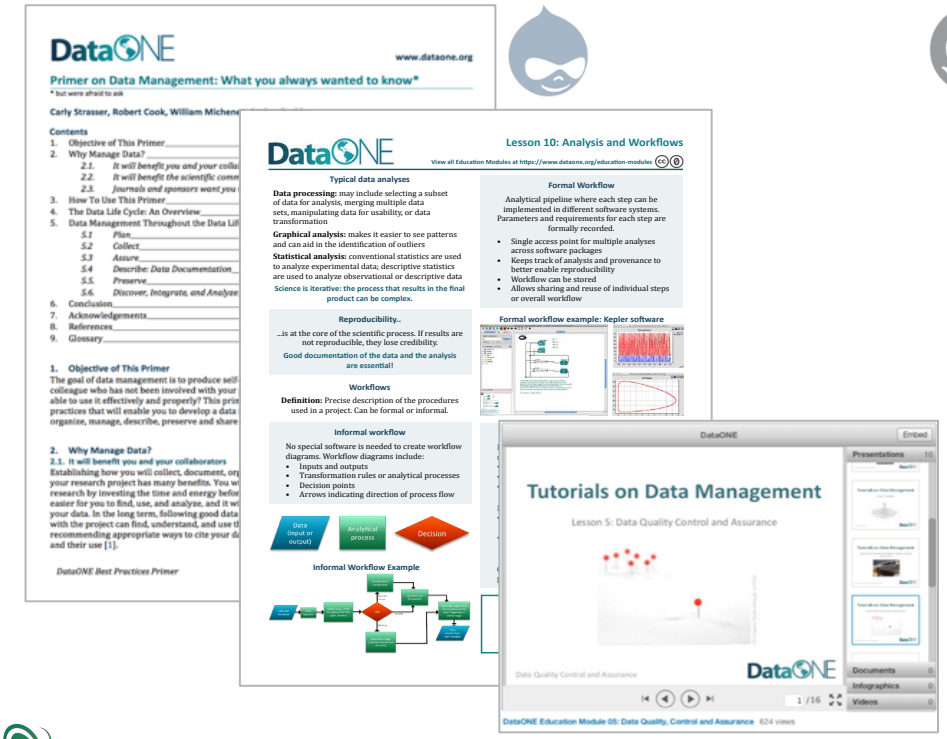

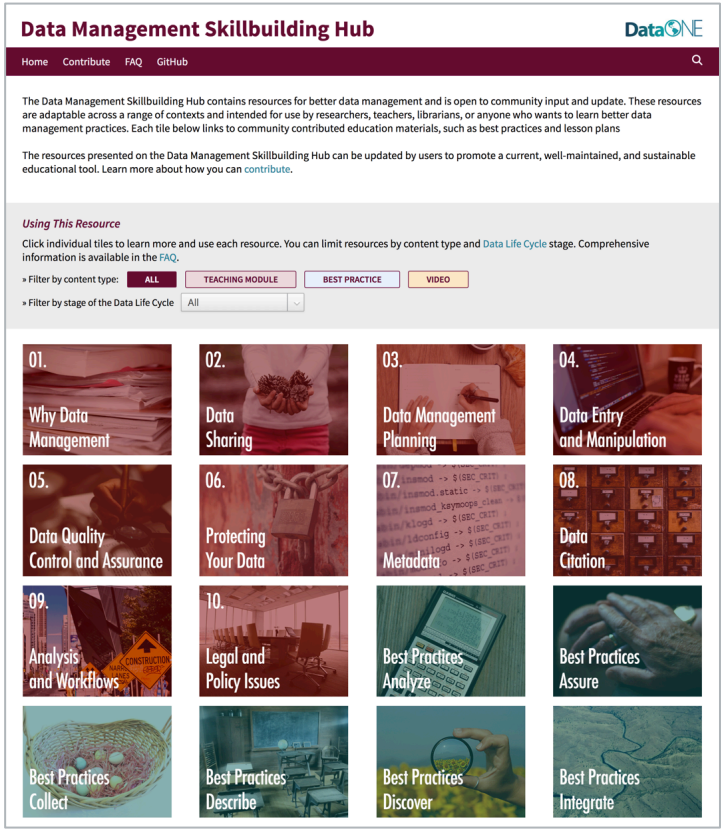

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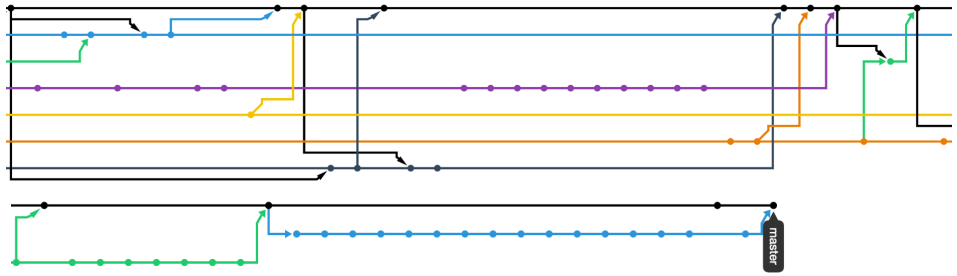
Open Community Platform

GitHub

Clone or download

Fork 11



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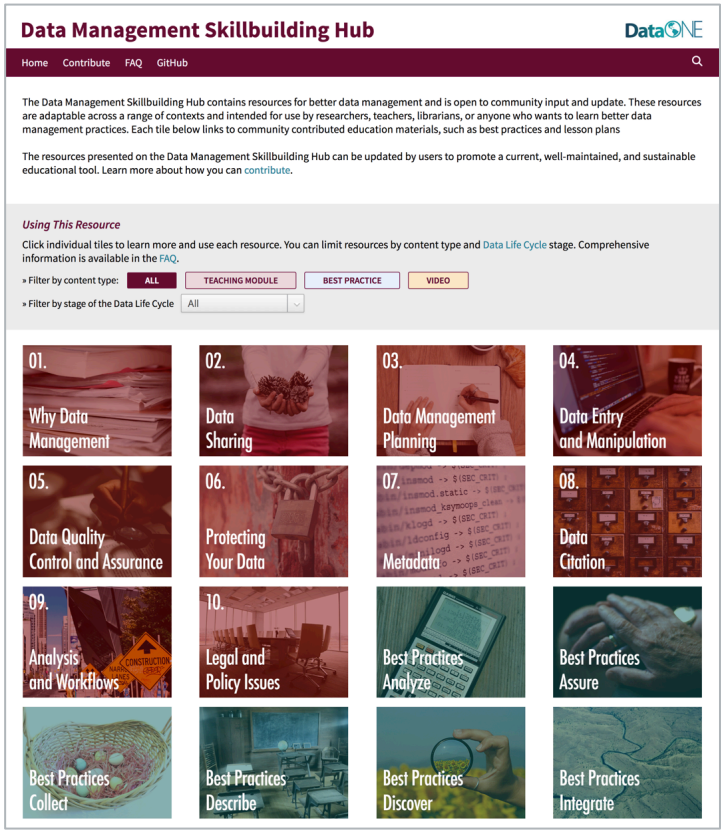

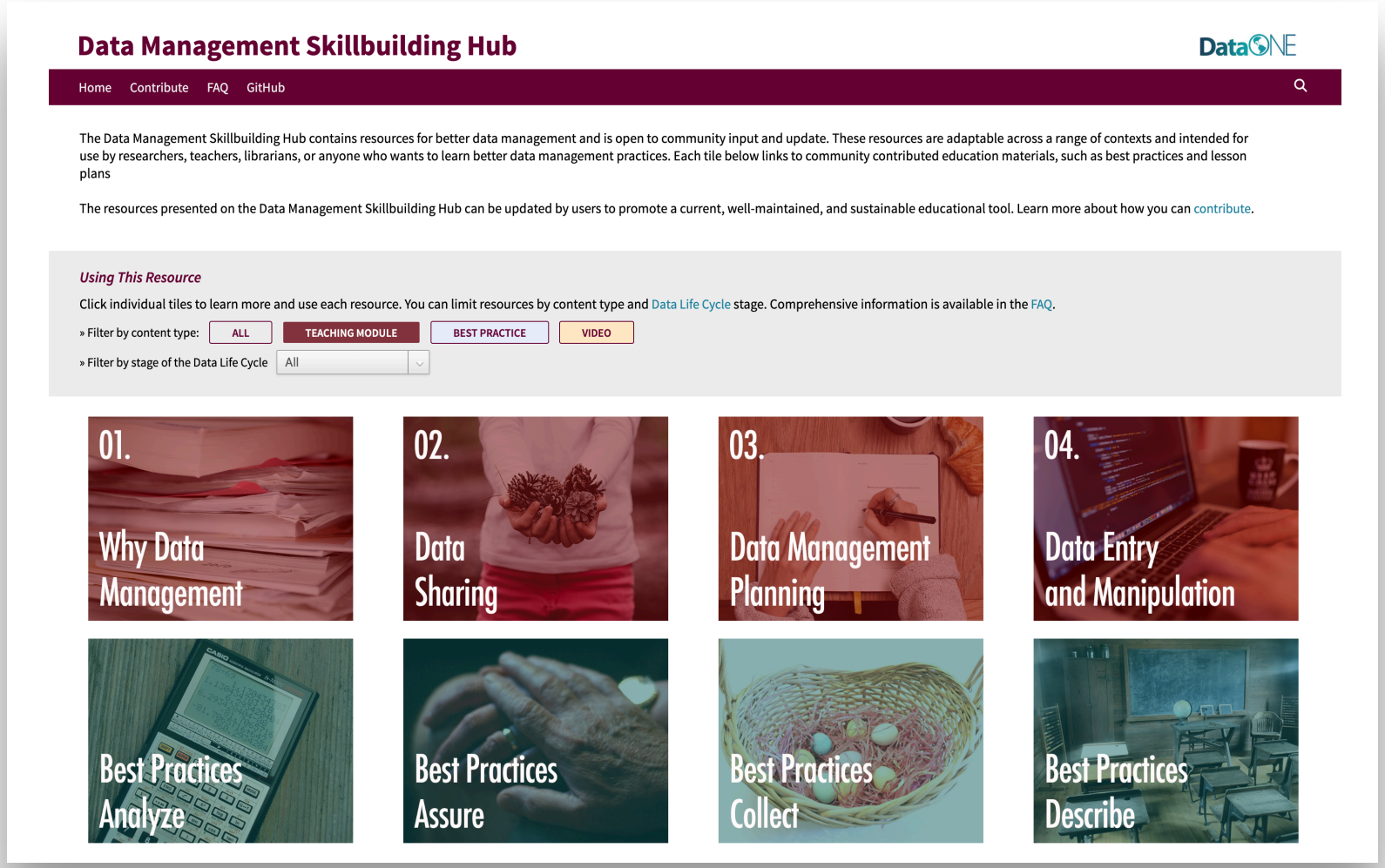
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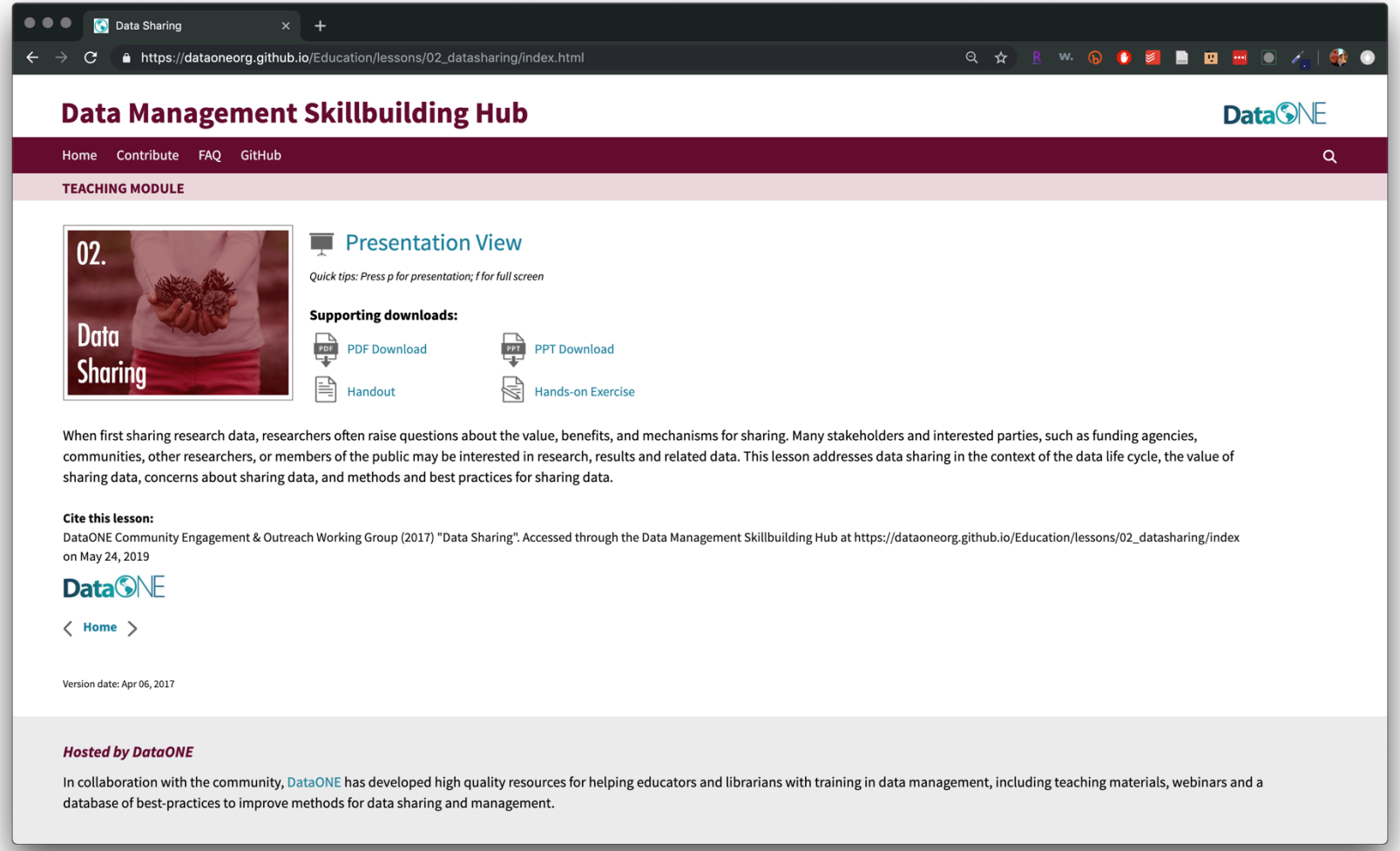
» Filter by content type:
ALL
TEACHING MODULE
BEST PRACTICE
VIDEO
» Filter by stage of the Data Life Cycle
All
01.
Why Data Management
02.
Data Sharing
03.
Data Management Planning
04.
Data Entry and Manipulation
Best Practices Analyze
Best Practices Assure
Best Practices Collect
Best Practices Describe


Data Sharing
https://dataoneorg.github.io/Education/lessons/02_datasharing/index.html
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TEACHING MODULE
02.
Data
Sharing
Presentation View
Quick tips: Press p for presentation; f for full screen
Supporting downloads:
PDF Download
PPT Download
Handout
Hands-on Exercise
When first sharing research data, researchers often raise questions about the value, benefits, and mechanisms for sharing. Many stakeholders and interested parties, such as funding agencies, communities, other researchers, or members of the public may be interested in research, results and related data. This lesson addresses data sharing in the context of the data life cycle, the value of sharing data, concerns about sharing data, and methods and best practices for sharing data.
Cite this lesson:
DataONE Community Engagement & Outreach Working Group (2017) "Data Sharing". Accessed through the Data Management Skillbuilding Hub at https://dataoneorg.github.io/Education/lessons/02_datasharing/index on May 24, 2019
DataONE
Home
Version date: Apr 06, 2017
Hosted by DataONE
In collaboration with the community, DataONE has developed high quality resources for helping educators and librarians with training in data management, including teaching materials, webinars and a database of best-practices to improve methods for data sharing and management.

Data Life Cycle: describe

https://dataoneorg.github.io/Education/bp_step/describe/

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BEST PRACTICE

Best Practice: Describe

Select a Best Practice below to learn more about the "Describe" stage in the Data Life Cycle.

What is the "Describe" stage?

Document data by describing the why, who, what, when, where, and how of the data. Metadata, or data about data, are key to data sharing and reuse, and many tools such as standards and software are available to help describe data.

More information can be found in the Best Practices Primer.

Best Practices by Data Life Cycle

All
Plan
Collect
Assure
Describe
Preserve
Discover
Integrate
Analyze

Learn more:
BP Primer

Assign descriptive file names

File names should reflect the contents of the file and include enough information to uniquely identify the data file. File names may contain information such as project acronym, study title, location, investigator, year(s) of study, data type, version n... (click for more)

Tags: access describe discover format

Choose and use standard terminology to enable discovery

Terms and phrases that are used to represent categorical data values or for creating content in metadata records should reflect appropriate and accepted vocabularies in your community or institution. Methods used to identify and select the proper termin... (click for more)

Tags: controlled vocabulary describe documentation metadata ontologies preserve standards

Confirm a match between data and their description in metadata

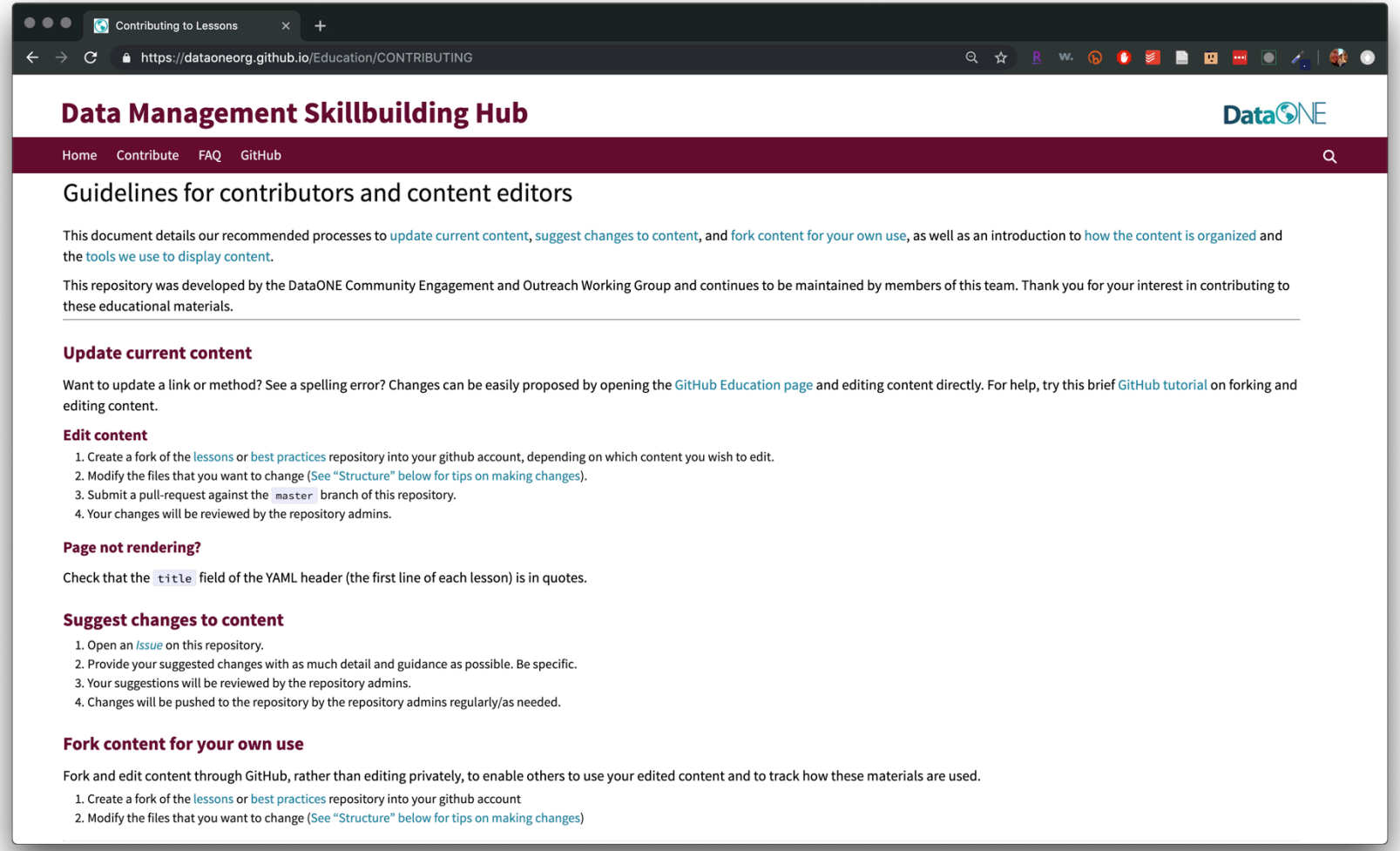
To assure that metadata correctly describes what is actually in a data file, visual inspection or analysis should be done by someone not otherwise familiar with the data and its format. This will assure that the metadata is sufficient to describe the da... (click for more)

Tags: assure data consistency describe documentation metadata quality

Create a data dictionary

A data dictionary provides a detailed description for each element or variable in your dataset and data model. Data dictionaries are used to document important and useful information such as a descriptive name, the data type, allowed values, units, and ... (click for more)

Tags: controlled vocabulary describe documentation metadata terminology units


Contributing to Lessons
https://dataoneorg.github.io/Education/CONTRIBUTING
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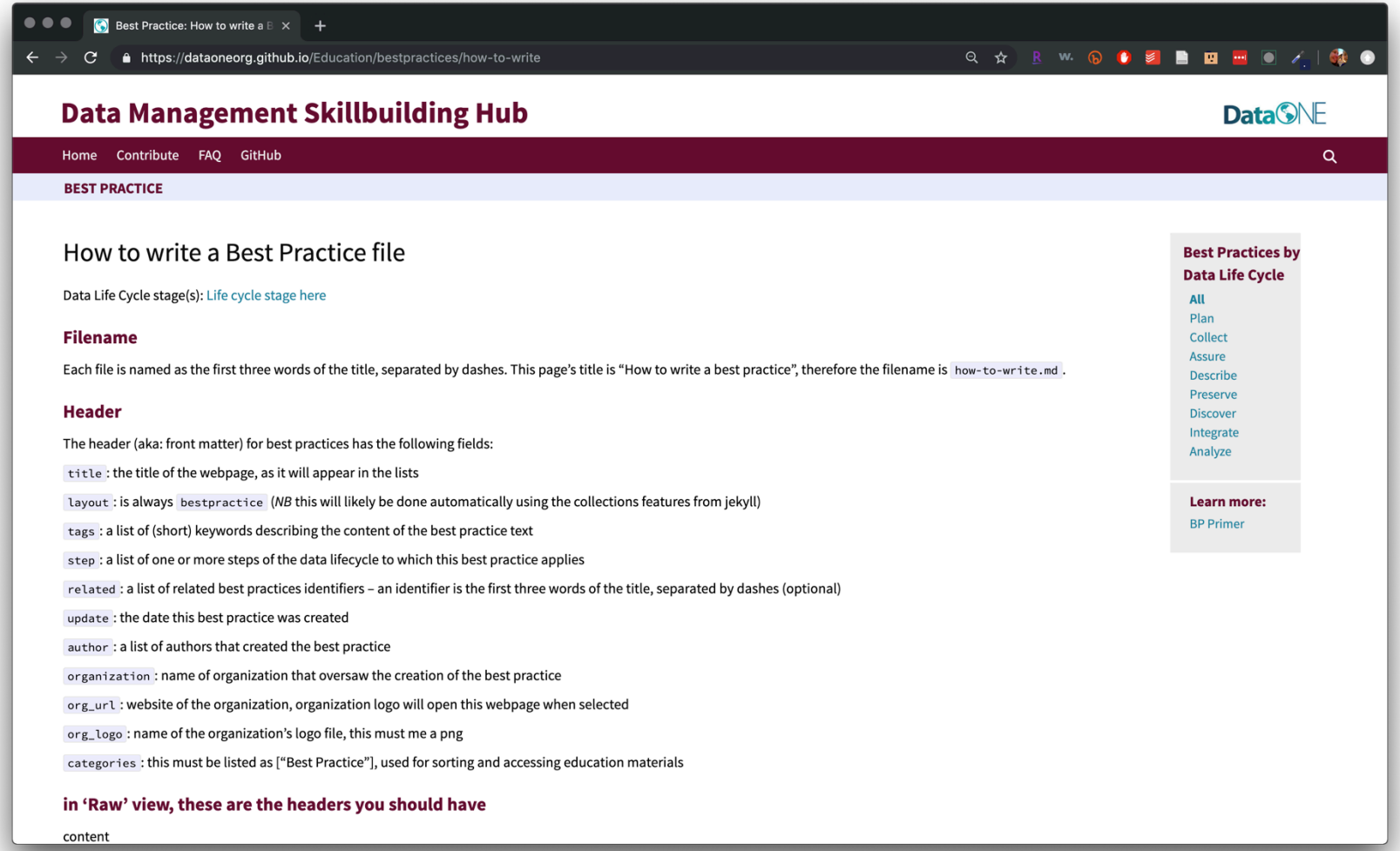
Guidelines for contributors and content editors
This document details our recommended processes to update current content, suggest changes to content, and fork content for your own use, as well as an introduction to how the content is organized and the tools we use to display content.
This repository was developed by the DataONE Community Engagement and Outreach Working Group and continues to be maintained by members of this team. Thank you for your interest in contributing to these educational materials.
Update current content
Want to update a link or method? See a spelling error? Changes can be easily proposed by opening the GitHub Education page and editing content directly. For help, try this brief GitHub tutorial on forking and editing content.
Edit content
1. Create a fork of the lessons or best practices repository into your github account, depending on which content you wish to edit.
2. Modify the files that you want to change (See "Structure" below for tips on making changes).
3. Submit a pull-request against the master branch of this repository.
4. Your changes will be reviewed by the repository admins.
Page not rendering?
Check that the title field of the YAML header (the first line of each lesson) is in quotes.
Suggest changes to content
1. Open an Issue on this repository.
2. Provide your suggested changes with as much detail and guidance as possible. Be specific.
3. Your suggestions will be reviewed by the repository admins.
4. Changes will be pushed to the repository by the repository admins regularly/as needed.
Fork content for your own use
Fork and edit content through GitHub, rather than editing privately, to enable others to use your edited content and to track how these materials are used.
1. Create a fork of the lessons or best practices repository into your github account
2. Modify the files that you want to change (See "Structure" below for tips on making changes)


Best Practice: How to write a B
https://dataoneorg.github.io/Education/bestpractices/how-to-write
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GitHub
BEST PRACTICE
How to write a Best Practice file
Data Life Cycle stage(s): Life cycle stage here
Filename
Each file is named as the first three words of the title, separated by dashes. This page's title is "How to write a best practice", therefore the filename is how-to-write.md.
Header
The header (aka: front matter) for best practices has the following fields:
title : the title of the webpage, as it will appear in the lists
layout : is always bestpractice (NB this will likely be done automatically using the collections features from jekyll)
tags : a list of (short) keywords describing the content of the best practice text
step : a list of one or more steps of the data lifecycle to which this best practice applies
related : a list of related best practices identifiers – an identifier is the first three words of the title, separated by dashes (optional)
update : the date this best practice was created
author : a list of authors that created the best practice
organization : name of organization that oversaw the creation of the best practice
org_url : website of the organization, organization logo will open this webpage when selected
org_logo : name of the organization's logo file, this must me a png
categories : this must be listed as ["Best Practice"], used for sorting and accessing education materials
in 'Raw' view, these are the headers you should have
content
Best Practices by Data Life Cycle
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Plan
Collect
Assure
Describe
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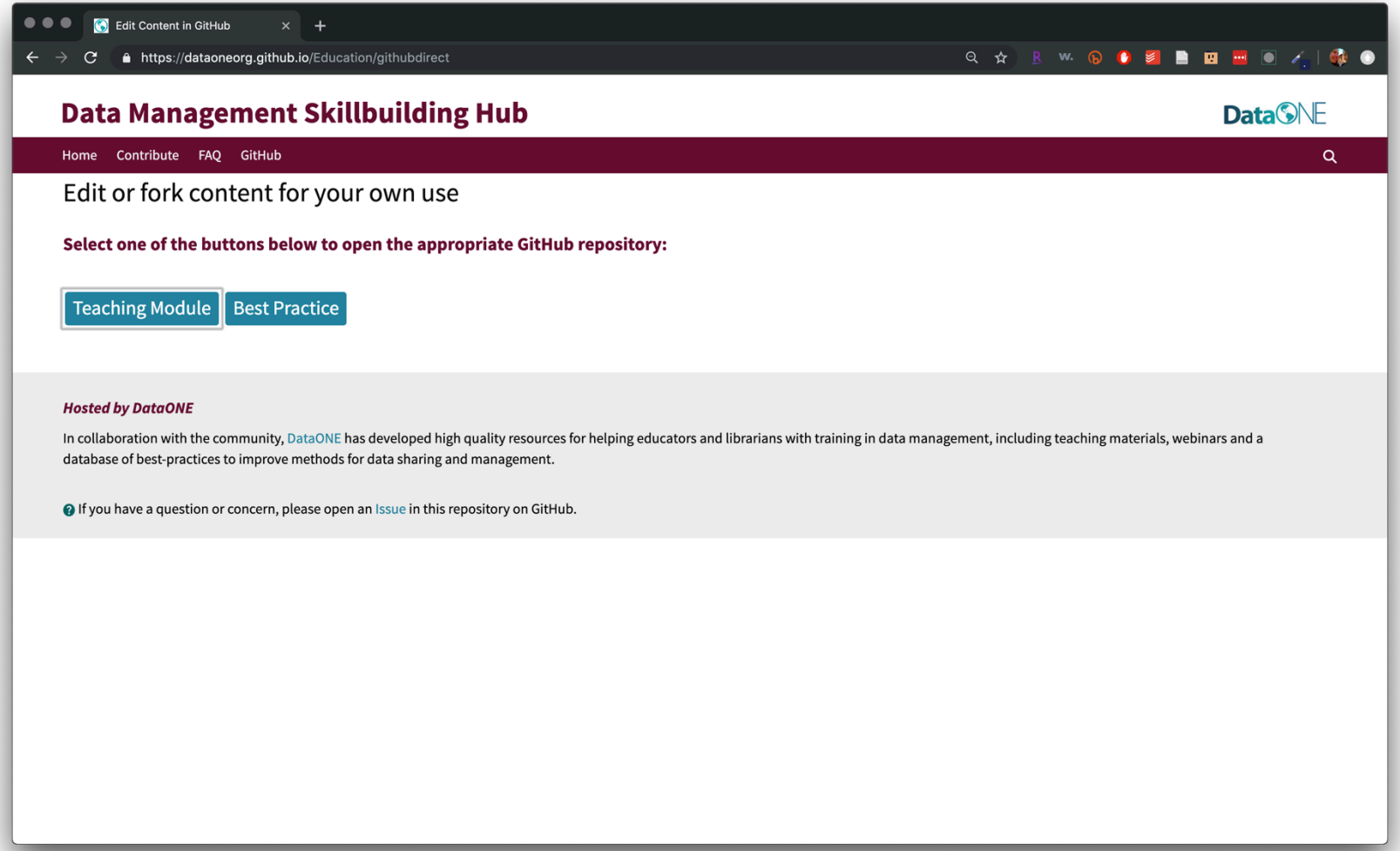
Integrate
Analyze
Learn more:
BP Primer


Edit Content in GitHub
https://dataoneorg.github.io/Education/githubdirect
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Edit or fork content for your own use
Select one of the buttons below to open the appropriate GitHub repository:
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National Center for Ecological Analysis and Synthesis

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Reproducible Research Techniques for Synthesis

A five day immersion into widely adopted R-based tools for open science

DataONE NCEAS

NCEAS.UCSB.EDU/LEARNING-HUB/SHORT-COURSE

Curriculum at a Glance

Enable data reuse through better data management

- Metadata - how to write a quality data description
- Data modeling - tidy data for efficient access and storage
- Data publishing, citation and credit

Build reproducible scientific workflows

- Data munging with R tidyverse
- Working collaboratively - git and GitHub
- Writing functions in R
- Building packages for publishing repoducible research

Communicate results effectively

- Literate analysis with RMarkdown
- Publishing analytical web pages with GitHub pages
- Data visualization with ggplot and leaflet

Details

Dates:

November 4-8, 2019
February, 2020 TBD
May, 2020 TBD

Cost:

$2,100
Includes: 5 days of instruction, coffee, light snacks and lunch.
Does not include: travel, lodging costs, breakfast or dinner.

Location:

NCEAS, 735 State St. Suite #300
Santa Barbara, CA