

Libraries and Societies Data and Software Sharing Series

27 January 2022

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Motivation

- Library Background
- Wiley Event @ Caltech
- Commitment/Collaboration w/ Libraries
- Data Help Desk

Libraries and Societies Data and Software Sharing Series @ the UCLA Library and the AGU

Speakers:

- Roger Wakimoto, Vice Chancellor for Research at UCLA
- Todd Grappone, Associate University Librarian for Digital Initiatives & Information Technology at UCLA Library
- Brooks Hanson, Executive Vice President for Science for the AGU
- Shelly Stall, Senior Director, AGU Data Leadership
- Chris Erdmann, AGU Assistant Director, Data Stewardship
- Jamie Jamison, Library Data Science Center Data Collections Manager
- Leigh Phan, Library Data Science Center Facilitator
- Wynn Tranfield, Physical and Basic Sciences Librarian

Topics:

- Data/Software Best Practices/Tools
- Open Access
- Data/Software Management, Preservation, Credit
- Open Science Training

<https://calendar.library.ucla.edu/event/8189683>

Libraries and Societies Data and Software Sharing Series @ the UCLA Library and the AGU

Monday, Oct 18, 2021 - 9:30am to 12:00pm



Please join the UCLA Library and the American Geophysical Union (AGU) in a webinar aimed at offering insight and support to scholars conducting research across various areas of geophysical research. Through this event, we hope to advance knowledge of current best practices and tools, and connect researchers with UCLA Library data and software services, the greater UCLA community and the AGU.

After opening with a discussion on the growing importance of open access to research data and software at UCLA and the AGU, participants will learn about data and software resources and services offered by both institutions. This will be followed by a presentation on recent advances of possible benefit to researchers, along with an opportunity to discuss any additional data and software-related questions and challenges.

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The UCLA Library and the American Geophysical Union (AGU) share a commitment to helping researchers preserve, share, discover and receive credit for their research data and software. Partnered together, we offer services, guidance, and coordinate improvements throughout the research lifecycle to guide researchers to organize, describe, and curate their data and software with the goal of transparency and reproducibility. Our services advance management and computational skills through training programs like The Carpentries and consulting services like the UCLA DataSquad to provide foundational practices and techniques for preserving and citing data and software.



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co-hosted by UCLA Library and American Geophysical Union
Monday, Oct. 18, 2021 | 9:30 a.m. to noon PT | RSVP at bit.ly/ucla-agu



RSVP

2. Funders (mostly)

All that's needed?

- One decision

Elevate the importance of data, software, etc. in grants and awards

“Valuing” DMP’s are not enough if they remain the last section of proposals and data *et al.* are not central.

Major funders (e.g., NSF, NIH, ERC, UKRI) focus grants and grant review on intellectual merit.

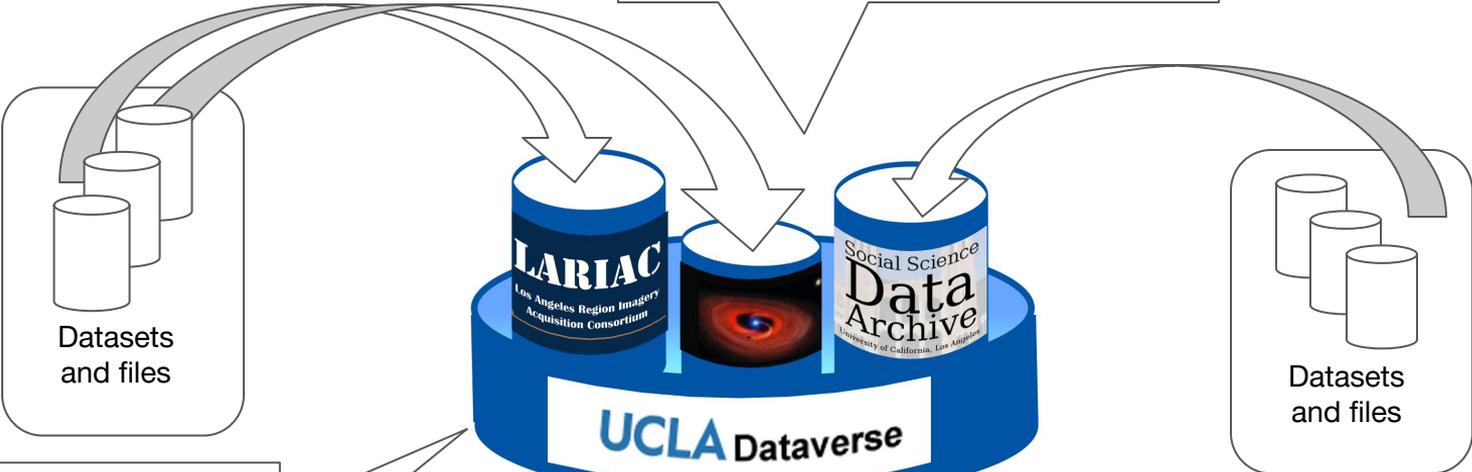
- Intellectual merit statements are an anachronism of how science has been valued.
- They in effect diminish the value of data, software and other outputs needed today for scientific and societal impact relative to the ideas that depend on them.

A Modern Approach:

- **Outcomes Impact Statement:** Explain how the outcomes of this research—including new data, software, materials, samples, and products—will have scientific and societal value and impact. Indicate how these outcomes will be shared using leading practices, referencing the DMP as appropriate.
- **Fund Data Infrastructure:** As part of DMPs or in integrated way

UCLA Dataverse

Sub-Dataverses: Containing datasets and files.



UCLA
Dataverse:
Contains all
Sub-Dataverses
and Datasets

AGU Data & Software Sharing Guidance

What is covered:

- What data needs to be available?
- Repository Selection
- Availability Statement
- Data & Software Citation
- International Geo Sample Numbers
- Data Help Desk

AGU ADVANCING EARTH AND SPACE SCIENCE

JOIN RENEW GIVE LOGIN Q ☰

Data & Software for Authors

WHAT IS NEEDED?

AGU requires that the underlying data needed to understand, evaluate, and build upon the reported research be available at the time of peer review and publication. Additionally, authors should make available software that has a significant impact on the research. This entails:

1. Depositing the data and software in a trusted repository, as appropriate, and preferably with a DOI
2. Including an [Availability Statement](#), as a separate paragraph in the Open Research section explaining to the reader where and how to access the data and software
3. And including [citation\(s\)](#) to the deposited data and software, in the Reference Section.

Click on the headings below for detailed information on:

- [Models & Simulations](#)
- [Journal-Specific Data Guidance](#)
- [International Geo Sample Numbers](#)

Most of your questions regarding data and software should be answered by the resources below. Just in case, if you still have questions, you can contact DataHelp@agu.org.

WHAT DATA NEEDS TO BE AVAILABLE?

Primary and processed data used for your research should be preserved and made available. Generally, the underlying data are considered to be the types of data usually preserved in domain repositories for each discipline. These may include raw data, but are usually the processed or refined data that support and lead to the described results and allow other readers to assess your conclusions and build off your work.

In your paper, cite these data, as well as any data you used from other sources, and include information about access to the data in the availability statement. For model or simulation data, follow [journal specific guidance](#) on prioritizing preserved output; in general, availability of software is most important.

Very large data (greater than 1 terabyte or TB) can be a challenge to preserve as there often fees and additional resources required. One option to consider, institutions often offer solutions for data preservation and compliance. Again, refer to the [journal specific guidance](#) for more information or email DataHelp@agu.org.

<https://www.agu.org/Publish-with-AGU/Publish/Author-Resources/Data-and-Software-for-Authors>

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RSVP

DATA FAIR

And Software!

Get Cited, Get Funding and Go Further
with Better Data and Software Skills

Data Help Desk • Data and Software Management
Workshops • Tool and Platform Demos and Training

AGU Fall Meeting 2021

A program of ESIP, AGU, and their partners



Data Help Desk

Connecting Researchers and Data Experts to Enhance Research and Make Data and Software More Open and FAIR

[Volunteer as a Data Expert](#)

More Details

Do you have data-related questions? Are you looking to make your data and/or software open and FAIR? Are you interested in tools and resources for working with your data or for finding data to reuse? The Data Help Desk is here for you!

<https://www.esipfed.org/data-help-desk-at-agu-2021>

Data Help Desk

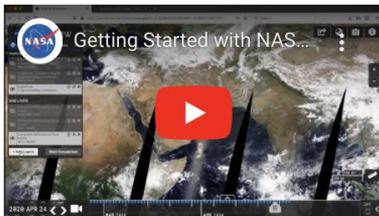
Data Help Desk at 2021 AGU Fall Meeting

December 13-17, 2021 – New Orleans, LA & Online

The Data Help Desk, which is being held in conjunction with the [American Geophysical Union \(AGU\) Fall Meeting](#) is a program of EarthCube, the Earth Science Information Partners (ESIP), and AGU, connects researchers with data and software experts to enhance research and make data and software more open and FAIR. Join us in person if you can or [follow the action on Twitter](#).

Contributed Demos & Tutorials

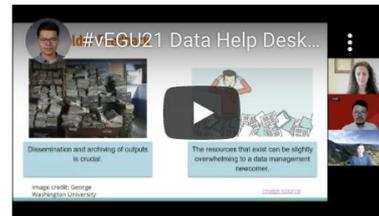
To view one-pagers & notebooks, [click here](#).



Learn how to use the NASAWorldview imagery mapping & visualization application to explore global Earth science data imagery. Contributor: [NASA Earthdata](#)



New Earth science data resources available to help users find, access, use, and visualize NASA Earth science data. Contributor: [NASA Earthdata](#)



Introduction to *A Graduate Student's Road Map to Data Management Training*, which can be found at <https://doi.org/10.6084/m9.figshare.14384456.v1>. Contributor: ESIP Community Fellows.

<https://www.esipfed.org/data-help-desk-at-agu21-resource-gallery-videos>

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One-Pagers

To view recorded demos & tutorials, click here.

A guide to help graduate students wade through the ocean of data resources learn data management practices to help with various graduate school milestones. Contributor: Ben Roberts-Pierel, Eleanor Davis, and Yuhao Rao

BCO-DMO works with researchers to help them access, as well as share their oceanographic data and related information online. Contributor: BCO-DMO (Biological and Chemical Oceanography Data Management Office)

pyrolite is a set of tools for helping geochemists new to Python quickly get off the ground and make use of their data. Contributor: pyrolite



Data
HelpDesk

...  **Following**

Data Help Desk

@EarthDataHelp

Ask us ?'s about finding, sharing, analyzing, publishing, & citing #EarthScience data & more. Sponsors: @EarthCube @ESIPfed @theAGU @EuroGeosciences @geosociety

esipfed.org/data-help-desk...  Joined September 2021

59 Following 53 Followers

 Followed by Yuhan (Douglas) Rao, Helen Glaves, and 13 others you follow

Tweets Tweets & replies Media Likes



Data Help Desk @EarthDataHelp · Dec 17, 2021

Thanks for joining #DataHelpDesk at #AGU21! Visit us again at @theAGU #AGU21. Until then, check out these 50+ data-related resources: bit.ly/DataHelpAGU21.

Thanks to @EarthCube @ESIPfed @theAGU & our entire volunteer team for support!

#datahelpdesk-experts ▾

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+ Add a bookmark

Monday, January 10th ▾

 **SurveyGizmo** APP 3:31 PM

New Question Submitted to the Data Help Desk by Doug Schuster. The question is: Where can I access ERA-5 reanalysis data? .

 **Cynthia Hall** 3:35 PM

The ESA Copernicus Climate Portal is where I would try: <https://cds.climate.copernicus.eu/#!/search?text=ERA5&type=dataset>

 2 replies Last reply 15 days ago

Tuesday, January 11th ▾

 **SurveyGizmo** APP 1:23 PM

New Question Submitted to the Data Help Desk by Doug Schuster. The question is: Where can I find and access historical Sail Drone data? .

 1 reply 14 days ago

Today ▾

 **Sawyer Newman** 9:12 AM

joined #datahelpdesk-experts.

B *I*      

Message #datahelpdesk-experts

+     

 ▾

Open Science Training

Lessons for Librarians in Open Science Principles and Methods

Overview

The University of California, Los Angeles (UCLA) Library seeks funding from the Laura Bush 21st Century Librarian Program for an Implementation Project supporting the Program's Goal 3, Objective 3.4. Specifically, this project would use a peer review method to solicit and fund modular lesson creation for use in training librarians to support researchers in open science methods and digital processes. The UCLA Library seeks \$249,046 in funding and offers \$45,533 in cost-share to establish and coordinate a lesson development process for 14 open science lessons for librarians. This process would include 1) creating a review committee of researchers, librarians, and data science professionals, 2) developing and issuing a call for lesson proposals, 3) selection of lessons, and 4) two virtual summer schools to support selected lesson designers in curricular and modular lesson development life cycle. The resulting 14 open source and modular lessons would support continued skills development for librarians in open science so that they can effectively provide instruction to new researchers as well as serve as effective collaborators with faculty and researchers in science projects using open science practices. Scholarly and research practices change rapidly, and library and information professionals are key members in the research activities at universities and research institutes. Librarians who can advocate for and support open science will enable effective research to reach a wider community. This project will develop, implement, and refine a reusable curriculum to ensure library and information professionals have the skills to participate in a research lifecycle that enables open science.

Transform to Open Science (TOPS)

From 2022 to 2027, TOPS will accelerate the engagement of the scientific community in open science practices through events and activities aimed at:

- Lowering barriers to entry for historically excluded communities
- Better understanding how people use NASA data and code to take advantage of our big data collections
- Increasing opportunities for collaboration while promoting scientific innovation, transparency, and reproducibility.

The TOPS mission is aligned with recommendations from NASA's [Strategy for Data Management and Computing for Groundbreaking Science 2019-2024](#), the National Academies reports on [open science](#), [reproducibility](#), and [scientific software](#), and the [2021 UNESCO draft Recommendation on Open Science](#) synthesis report.



Engage in the open science community on
the Transform to Open Science (TOPS)
GitHub



*TOPS. (2021). Creative Commons Attribution 4.0 License.
<https://doi.org/10.5281/zenodo.5225076>*

<https://science.nasa.gov/open-science/transform-to-open-science>

Guidance for AGU Authors - Jupyter Notebooks



Jupyter Notebooks are increasingly being used for documenting data science workflows and replicating relevant analyses in research. These recommendations are available to help guide authors through the process of sharing their Jupyter Notebooks when publishing in AGU journals.

<https://data.agu.org/resources/jupyter-notebooks-guidance>



AGU Data Leadership

<https://data.agu.org>

Preserving very large data is a challenge. Spoilers, there are no easy answers!

OCTOBER 01, 2021

When it comes to large datasets, we are often asked by authors and editors how they should preserve the data. These questions come via datahelp@agu.org and our data and software guidance discussions. Spoilers, there are no easy answers, yet! Here we offer our experience, share the current limitations, and the approaches we recommend with what is possible right now.

Your Digital Presence - Taking advantage of the auto-update feature for your ORCID

SEPTEMBER 21, 2021

Your Digital Presence is how other researchers and the international scholarly community discover your research online with commonly used open search tools. It is also an important element of Open Science. By making discovery easy for others you help to:

Domain-Discipline Repositories Useful to AGU Journals

OCTOBER 24, 2021

HydroShare

HydroShare is a system operated by The Consortium of Universities for the Advancement of Hydrologic Science Inc. (CUAHSI) that enables users to share and publish data and models in a variety of flexible formats, and to make this information available in a citable, shareable and discoverable manner. HydroShare includes a repository for data and models, and tools (web apps) that can act on content in HydroShare providing users with a gateway to high performance computing and computing in the cloud. With HydroShare you can: share data and models with colleagues; manage access to shared content; share, access, visualize, and manipulate a broad set of hydrologic data types and models; publish data and models and obtain a citable digital object identifier (DOI); aggregate resources into collections; discover and access data and models published by others; use the web services application programming interface (API) to programmatically access resources; and use integrated web applications to visualize, analyze and run models with data in HydroShare. Link(s): [CUAHSI](#), [HydroClient](#)

[More information at re3data.org](#)

Water, Hydrologic Data

Water Resources Research, JGR Biogeosciences, JGR Oceans

EarthChem Library

An open-access repository for geochemical datasets (analytical data, experimental data, synthesis databases) and other digital resources relevant to the field of geochemistry. The EarthChem Library offers data preservation and access, including long-term archiving and registration of data with Digital Object Identifiers (DOIs). Text taken from EarthChem Library website. Link(s): [Data Submission Guidelines](#), [Citation Guidelines](#)

[More information at re3data.org](#)

Geochemical Data

Geochemistry, Geophysics, Geosystems, JAMES, Water Resources Research, JGR Earth Surface, Tectonics, JGR Oceans, JGR Planets, JGR Solid Earth

<https://data.agu.org/resources/useful-domain-repositories>

**“With a little help from our friends”
- the Beatles**



datahelp@agu.org

Thank you.



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