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Equip your team for Open Science - RESOURCES AND GUIDANCE FOR TEAMS

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Equip your team for Open Science – RESOURCES AND GUIDANCE FOR TEAMS

Welcome to “Your Open Science Journey”!

Ensure your team has access to common resources and guidelines that support collaboration, transparency, and openness.

Target Audience

Primary: Team or project lead

Secondary: Team or project researcher

This guidance is generalized and will need to be adjusted based on your institution, lab, research team, and/or funder requirements.

A. ESTABLISH COMMON TEAM RESOURCES

1. **At the beginning of the project, decide on the team resources.** To be effective, the entire team needs to participate in the choice and to adhere to using the selected resources and tools. Resources can be either open-source or proprietary. How well the resource supports open collaboration across your team during and after the project should be an important consideration. Consider resources that track individual contributions to help with accurate attribution.
 - a. **Project management.** There are many options based on the type of project. With new tools available all the time, look for an “open source project management tool” in your preferred search engine. Remember to keep it “as simple as possible”.
 - b. **Team communication.** e.g., Slack channel, email, Zoom.
 - c. **Document management and development** during the project. E.g., Google Drive, wiki, and other collaborative platforms.
 - d. **Dataset storage during the project**, considering size and access/controls. E.g., [Open Science Framework](#) (OSF), [GitHub.com](#), disciplinary, institutional, or national repository.
 - e. **Dataset, image, and associated digital object preservation for your project milestones**, such as a yearly report. Refer to your funding’s Data Management Plan to determine where and when this activity should occur. E.g., FAIR-aligned disciplinary, [generalist](#), or institutional repository. To find a FAIR-aligned repository: [re3data.org](#), [FAIRsharing.org](#), [DataCite Commons for repositories](#).
 - f. **Software, script, model, and/or workflow development.** E.g., [GitHub.org: establish an organization account](#) for use by the team.
 - g. **Software, script, and/or workflow preservation.** E.g., [Zenodo](#): establish a community or select a [SciCodes repository](#). Refer to your funding’s Software Management Plan to determine when this activity should occur. Ensure the repository provides at least: curation services, a persistent identifier (e.g., Digital Object Identifier), open licensing.
 - h. **Conference, training and workshop material preservation.** E.g., [Zenodo](#): establish a community.

- i. **Video and audio management and preservation.** These file formats are best rendered on platform tools such as YouTube, which is not a preservation platform. For files that require preservation, use FAIR-aligned [generalist](#) or institutional repositories.
 - j. **Promotion of outputs.** E.g., team, lab, or department website; social media; research team or partners' newsletters and media.
2. **Establish a Digital Object Registry** to manage and track datasets, software, conference presentations, posters, preprints, and publications. This helps with grant reporting. e.g., Sheets in Google Drive, or other types of lists. For more information on how to create the registry, see [Digital Objects Preservation Checklist for Teams](#).
 3. **Keep a summary list of the common team resources** and provide it to team members. Ensure each team member has equitable access and receives training and updates. e.g., Sheets in Google Drive, wiki

B. USE REMINDERS AND MILESTONES TO MANAGE AND TRACK DIGITAL OBJECTS

The digital objects for a project include any digital file developed by the team. This includes datasets, software, papers, posters, presentations, etc. These digital objects should be managed and tracked. To keep track of the following actions, we recommend using calendar reminders or other notifications.

1. **Automatically connect your peer-reviewed papers and registered digital research objects** to the digital research ecosystem through the connecting capability of the ORCID persistent identifier for researchers. **Frequency: Once for each team member.**

The ORCID ID identifies each researcher uniquely and connects them to their scholarly work. To link your ORCID ID see [this page](#) for instructions for both **Crossref** (English-language scholarly publications) and **DataCite** (datasets and software, as well as other research outputs). For more information on establishing your ORCID ID and profile, review the [Digital Presence](#) checklist.
2. **Make your ORCID profile publicly available.** The default setting for each element is “private” and must be changed manually. Make sure that your biography, contact information, affiliation, and works are available publicly. **Frequency: Once for each team member.**
3. **Manage and track datasets and software** used and accessed by the team. This supports efficiency, especially when working with many digital objects. **Frequency: Twice a month for team members.**

Include all datasets, software, and other digital objects you are using in your research. Add or update them in the team [Digital Object Registry](#). Be consistent in using the working platforms and tools defined in the [Common Team Resources](#).
4. **Ensure all disseminated materials and presentations are preserved. Frequency: Monthly for team members**

Ensure posters, oral presentations, training, workshops, and any other disseminated materials are included in the [Digital Object Registry](#). Provide information on the related event such as the name of the conference and session, dates, website links, funder acknowledgement.
5. **Ensure your digital profile reflects your current work. Frequency: Every three months for each team member.**

- a. Review your ORCID profile and any other online profiles (e.g., LinkedIn, Scopus, Researcher ID) and ensure they are current and complete. Link all profiles to your ORCID account and vice versa where possible. Refer to the [Digital Presence module](#) for details.
- b. Ensure your CV is current, available digitally, and linked to your ORCID account using the “website link” feature.

C. IMPROVE PRACTICES THROUGH USE AND FEEDBACK

Establish periodic team meetings to review effectiveness of resources and team guidelines. Review with the team their experiences and challenges using the resources and guidelines. Adjust as necessary, working towards better support of Open Science objectives for the team.

D. ATTRIBUTION AND ACKNOWLEDGEMENT

1. **As work progresses and outputs develop, ensure that all team members are given the opportunity to be included as equitably as possible.**
2. **Track team member contributions** so that accurate credit can be given.
 - a. **Digital Object Development Leads:** Give contributors a clear way to document their contributions. At the time of publication, include contributor information in the digital output information using taxonomies such as [CRediT](#) (for peer-reviewed papers).
 - b. **Contributors:** Provide information on your contributions to each digital object in a timely manner to ensure proper recognition.
3. **Make sure project, funder, and collaborator acknowledgement and credit are given.**

Provide to the team the project, funder, and collaborator acknowledgment statements, logos and/or graphics to be included in each digital output.

Quick Links to related checklists:

- [Your Digital Presence](#)
- [Data Documentation and Citation Checklist](#)
- [Software Documentation and Citation Checklist](#)
- [Open Science Practices for Teams](#)
- [Digital Objects Preservation Checklist for Teams](#)

To recommend updates, please email datahelp@agu.org. Include the name and DOI for the checklist in your email.

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