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Managing & Organizing Data - Informational Bulletin

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Managing and Organizing Data

Taking the time to manage and organize your research data allows you to more **efficiently find your files**, track your methods for **reproducibility**, implement better **version control** of data, **avoid data loss**, and **better document your data** for your own recollection, accountability, and re-use.

Keys to successfully managing and organizing your data:

- ★ Maintain **good documentation** including readme files, data management plans, and file naming conventions.
- ★ **Communicate thoroughly** by providing training and sharing documentation with all team members involved in the project.
- ★ **Assign one person** to be responsible (if you can) so there is consistent checking that managing data is going well and continuing throughout the project.

Data is a valuable asset.

It is expensive and time consuming to collect. **Take good care of it** since well-managed data:

- improves quality, accuracy, and integrity of your research.
- maximizes its effective use.
- ensures its appropriate use.
- strengthens the reliability of the research by promoting transparency and accountability, and reduces bias and errors.
- ensures sustainability and accessibility allowing others to reproduce your findings.

Organizing Tactics

1. **Identify storage solution(s)**. Depending on the complexity of your data or project, you may have multiple locations where you are storing data and files related to your project.
2. **Establish directory/folder structures**. This should be based on you and your research team's workflows, and your usual way of finding your data. Data can be organized by step in the research process, file type, or deliverables.
3. **Develop file naming convention(s)**. Name your project files in a systematic and understandable way, using standards when available and understandable abbreviations. Example: `Project_YYMMDD_ContentDescription_Version.ext`
4. **Decide on file formats**. It is recommended to choose file formats that are non-proprietary, unencrypted, uncompressed, in common usage by the research community, adherent to an open and documented standard, and interoperable.

Resources

U-M Library: Make a Data Management Plan
<https://www.lib.umich.edu/research-and-scholarship/data-services/make-data-management-plan>

Workshop Recording: Data, Data Everywhere! Managing and Organizing Data
https://lib.mivideo.it.umich.edu/media/t/1_peqzgx2

Request a consultation
researchdataservices@umich.edu or THLResearchDataCore@umich.edu (Health Sciences)