Why Manage Your Data?

Save yourself time and money! Well-organized, easy-to-find files make for more efficient research. Save yourself the time, money, and pain of searching for things and restoring lost data. Plan ahead and be consistent. Making data management a **habit** instead of a chore will free you up to do more research.

Maximize the impact of your research! Good data management facilitates reuse and increases the visibility of your research. Well-managed and persistent data make your work more discoverable, verifiable, and reproducible. Move science forward and make a bigger impact by ensuring your data are **accessible** and **useable**.

It's required. Most funding agencies are now making data management plans (DMPs) a requirement for grant proposals, and journals are increasingly insisting on data sharing as a condition of publishing your work. **Ensure compliance** and conduct responsible research by making a plan and sticking to it.

Organizing Data

A sensibly organized folder structure and clearly named files make a big impact on your ability to find things and make sense of them. This is critically important if you are sharing active files with collaborators.

It is a good idea to store all files related to a specific project in one folder structure. Sub-directories can be organized, for example, by documentation type (photographs, text, or spreadsheets), by date, experiment type, or researcher.

There's no one way to organize data. Use a system that makes sense to you. Just remember to be **consistent** and **descriptive**. This will help others (including your future self) find your files and understand what's inside them.

File Formats

Ensuring your files will be accessible in the future is a challenge, but choosing file formats carefully helps **avoid obsolescence**. Use formats that are:

- Non-proprietary, open, documented standards
- Used commonly in your research community
- Encoded with standard characters (ASCII, UTF-8)
- Uncompressed

Naming Files

However you choose to organize your files, it is good practice to adopt a **naming convention** and use it throughout a project (or throughout your career). Consider file and/or folder names that contain information about: project names or acronyms, locations or coordinates, the names or initials of researchers, dates or date ranges, data types, and file versions. File names should:

- Describe the contents of the file. Avoid generic names (like draft.doc; final2.xls) that can be easily overwritten.
- Include dates. Don't rely on system dates, which can be misleading. Recommended formats: YYYYMMDD or YYYY-MM-DD.
- Not contain special characters like "/ \ : * ? " < > [ ] & $. These have meaning in software and operating systems and can cause trouble.
- Not contain spaces. These are problematic for some operating systems. Use underscores (file_name), dashes (file-name), or camel case (FileName) instead.
- Reserve the 3-letter file extension for application-specific codes (like .wav, .mov, and .tif)

Consider including a README.txt file that explains your naming convention and any codes or abbreviations you use.

Don't name your files one at a time. Use a free **batch-renaming tool.**
http://www.bulkrenameutility.co.uk (Windows)
http://renamer4mac.com (Mac)
http://www.powersurgepub.com/products/psrenamer.html (Linux, Mac, Windows)