Lost in the Data Jungle: A Case Study for Organizing, Publishing and Preserving Research Data

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Introduction
The Libraries formed a data working group of four librarians across disciplines to create a guide on data management resources. To explore good practices in data management services and establish a long-term partnership with faculty and researchers, we started a pilot case study for organizing and publishing research data.

Data Interviews
In this case study, we worked with a professor and her two graduate students in the field of chemical and biochemical engineering. Before the interviews, we received her data management plan for an NSF funded project on polymer research as well as sample raw and analyzed data. Two in-depth interviews were conducted to understand their data management needs.

Data Organization
In consideration of their specific data generation, collection and analysis, a folder organization scheme was developed. According to their feedback, the scheme has been working successfully.

Figure 1: Data Processing and Analysis

Figure 2: Folder Organization Scheme
Scope Notes (Selected):
Folders under Raman and DMA:
- Investigator: should include first name and last name.
  Format: firstName_lastName
- Study: a small part of an agency-funded project but could be composed of several experiments
- Material: a chemical material such as a polymer in a study

Data Publishing and Preservation
To implement their data management plan, we will guide the researchers through the process of depositing their manuscripts, associated data and documentation into an institutional repository, Iowa Research Online.

Conclusion and Future
This case study can be used as a best practice example to better support faculty and researchers throughout the research data life cycle. We plan to validate our organization scheme by sharing it with other faculty in the same field and expanding it to other fields.

References

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