

Designing a Data Management Workshop

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Background

The New England Collaborative Data Management Curriculum provides materials for seven 90 minute sessions covering topics on data management. The opportunity to implement a curriculum of that magnitude is not always available. We adapted the content of the curriculum to a one 90 minute session, emphasizing the practical aspects of the curriculum, and adding a personalized and unique readme and laptop swap activity.

Setting

The University of California, Los Angeles is a large public research university. To test and promote the workshop, the authors partnered with the Director of the Office of Postdoctoral Affairs in the Biosciences. The workshop was advertised as part of their Academic Job Series to all graduate students and postdoctoral researchers, with a focus on STEM disciplines. The workshop was presented twice: May 28, 2015 and again on November 12, 2015. A total of 47 students attended these sessions.

UCLA workshop



Why manage data?



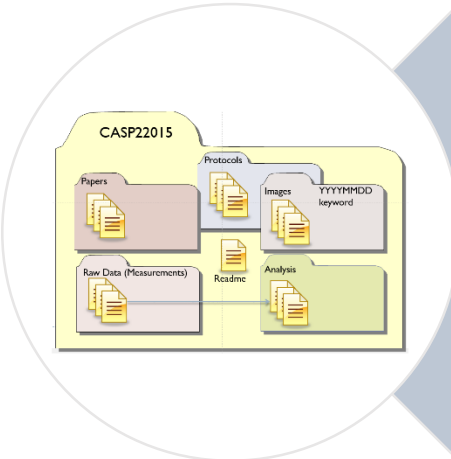
Tools for sharing and storage

- Box, UCLA-Google drive, IDRE-CASS



Who owns your data?

- UCLA data policy



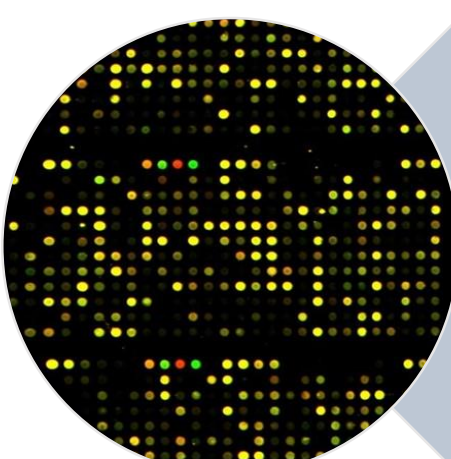
Best practices

- File naming
- Readme: in-house designed example
- Laptop swap activity (see below)



Protocols

- Best practices for completeness



Metadata

- Definition
- Mapping an example to familiar documents



Funder policies

- NSF DMP
- Response to OSTP memo



Data management plans

- Adapted and abridged NECDMC case study activity

NECDMC

Overview of research data management

- Objective: Motivation and resources for data management
- Activity: Data management plan, institutional survey

Types, formats and stages

- Objective: Standards, quality control, stages of research data
- Activity: Case studies, file organization

Contextual details

- Objective: Metadata
- Activity: Case study, repository template

Data storage and backup

- Objective: Importance of storage and backup, best practices, planning
- Activity: Case study, checklist

Legal and ethical aspects

- Objective: Ownership, privacy
- Activity: Case study, local IP policy, anonymization

Data sharing and reuse policies

- Objective: Motivation, obstacles, policies, standardization, citation
- Activity: Local policy, publisher policy, citation

Repositories, archiving and preservation

- Objective: Use repositories, understand storage vs. archiving, data context
- Activity: Appraisal, retention

Laptop swap

Participants were asked to bring their personal laptops to the workshops. After discussing readme best practices, they were instructed to split into small groups of 2 or 3 and to swap their laptops. Their goal was to identify the logic behind the laptop owner's data organization. A worksheet was provided to guide their analysis. The partners gave feedback to each other, and the laptop owners began writing a readme for their own data files.

Feedback

Fourteen percent of feedback survey respondents (6 out of 42) from the first session highlighted the hands-on opportunities in their comments.

- "Exchanging laptops for partner to find data was illuminating"
- "Useful to trade laptops with another+ see/figure out their method."
- "I thought my folder structure made sense, but apparently not that much to other people."

A majority of participants agreed that they would recommend this workshop to their peers (the evaluation forms provided by the Office of Postdoctoral Affairs in the Biosciences used two different scales: average score 4.45 out of 5 for the first workshop, 85% of respondents for the second workshop).

Future directions

- Provide a choice of DMP case studies to increase relevancy to more disciplines
- Describe workshop content in detail in the promotional materials
- More practical/applied Q&A time
- Partner with Science and Engineering Library to include physical sciences and engineering

Acknowledgement

Lamar Soutter Library, University of Massachusetts Medical School.
New England Collaborative Data Management Curriculum.
<http://library.umassmed.edu/necdmc>