Grand Valley State University ScholarWorks@GVSU

2013 Presentations

**Big Data Conference** 

2013

#### Thinking Long-Term: The Research Data Life Cycle beyond Data Collection, Analysis and Publishing

Carlos Rodríguez Grand Valley State University, rodriguc@gvsu.edu

Max Eckard Grand Valley State University, eckardm@gvsu.edu

Follow this and additional works at: https://scholarworks.gvsu.edu/bigdata\_conference2013

#### ScholarWorks Citation

Rodríguez, Carlos and Eckard, Max, "Thinking Long-Term: The Research Data Life Cycle beyond Data Collection, Analysis and Publishing" (2013). *2013 Presentations*. 6. https://scholarworks.gvsu.edu/bigdata\_conference2013/6

This Article is brought to you for free and open access by the Big Data Conference at ScholarWorks@GVSU. It has been accepted for inclusion in 2013 Presentations by an authorized administrator of ScholarWorks@GVSU. For more information, please contact scholarworks@gvsu.edu.

# THINKING LONG-TERM

The Research Data Life Cycle beyond Data Collection, Analysis and Publishing

**Carlos Rodríguez** Associate Dean for Technology & Information Services

**Max Eckard** Metadata & Digital Curation Librarian

#### **Research Data Life Cycle**

- Data is an important product of research and should (as much as possible) be accessible for re-use.
  - Researchers may continue to work with some or all of the data even after the project has been completed
  - Follow-up projects may re-analyze existing data or add new data to an existing data set
  - Data may be re-used or re-purposed by other researchers

#### **Research Data Life Cycle**



## Plan & Design

Components of a data management plan:

- Context
- Organizing data & file formats
- Documentation & metadata
- Storage & security
- Data protection, rights & access
- Preservation, sharing & licensing



#### **Collect & Capture**

- Think beyond your current project
  - Other people using your data will need to understand what you've done
- Document the collection process
  - Examples: Codebooks, questionnaires, software syntax, lab books, README.txt
- Describe the data
  - Data ≠ information
  - Create metadata to describe and facilitate sharing
  - Create a data dictionary for your metadata



### **Interpret & Analyze**

- Keep master or raw version of your data separate from what your working with
- Data storage & security
- Quality control, data cleanup



#### Manage & Preserve

- Retention
  - Short-term vs. long-term
- Long-term considerations
  - Format or media obsolescence
  - Appraise and select
    - Versioning information
  - Organizational risks
- Archive data with a data repository



#### **Release & Publish**

- Share data
  - ScholarWorks@GVSU
- Citing data
  - Assign datasets persistent identifiers
- Open access
  - Licensing options
  - Embargo period
- Ethics and privacy



#### **Discover & Reuse**

- Benefits of discoverability and reusability
  - For yourself
    - Track data impact metrics via data citation
    - Receive credit for reuse of published data
  - For others
    - Follow-up research
    - New research
    - Scrutinize findings



## What the Library is Doing

- Evolving and building expertise
- Creating awareness among Library Faculty
- Begin to increase campus awareness
- Campus Dialogue

