Data Lifecycle is not a Cycle, but a Plane!

Javad Chamanara, Birgitta König-Ries
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• A methodological way of managing research projects
• A support system for assurance of quality, time, and budget
DataOne Data Lifecycle

Plan → Collect → Assure → Describe → Discover → Integrate → Analyze → Plan
GFBio Data Lifecycle

https://www.gfbio.org/training/materials/data-lifecycle
USGS Data Lifecycle

DCC Curation Lifecycle Model

http://www.dcc.ac.uk/resources/curation-lifecycle-model
A Waterfall View of the Lifecycle

Plan → Collect → Assure → Describe → Preserve → Discover → Integrate → Analyze

Delivery
Let’s Disassemble the Lifecycle

Plan | Collect | Assure | Describe | Preserve | Discover | Integrate | Analyze
And board them on a Plane!
Two Dimensional Plane!

Discipline

- Plan
- Acquire
- Assure
- Describe
- Preserve
- Discover
- Integrate
- Analyze

Delivery
The Two Dimensional Plane!

Discipline

Plan
Acquire
Assure
Describe
Preserve
Discover
Integrate
Analyze

Unit of Work

Delivery
# The Horizontal Axis: Phases

## Discipline
- Plan
- Acquire
- Assure
- Describe
- Preserve
- Discover
- Integrate
- Analyze

## Phase
- Conception
- Implementation
- Publishing
- Preservation

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Flexibility and Verity: Activities

Height indicates effort

Width indicates duration

Color indicates activity type

Phases may have different durations

Disciplines may require different amounts of effort
Flexibility and Verity: Templates

Discipline

- Plan
- Acquire
- Assure
- Describe
- Preserve
- Discover
- Integrate
- Analyze

Phase

- Conception
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Unit of Work

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• Domain-Specific Settings
  • Special activities
  • Tailored activities
  • Recommendations and guidelines

• Funding Agency recommendations
  • Certain artifacts to be produced
  • Effort/duration guidelines or rules
  • Enforcement of certain activities
  • Base for project appraisal
Thank You