University of Oxford
Mapping Life-cycle models to the University – in theory and in practice

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Dr James A J Wilson
James.wilson@it.ox.ac.uk
A Gallery of Life-Cycles
Why life-cycles?

• Conceptual model to express a complex set of activities in a simple manner
• Follows funded project model – clear beginnings and clear endings
• Follows funders’ emphasis on re-use
• Consonant with broader rhythms of universities
  – e.g. REF
Are life-cycles meaningful?

• Not the way researchers generally conceptualize their research
  – Funding-driven / publication-driven
  – Tend to think more in terms of an overlapping series of projects
• Research does not always progress step-by-step through clearly-defined stages
  – Some activities on-going, others revisited
  – Postgrads, postdocs, collaborators join and leave projects
• Life-cycle models not controversial, however
Live data vs Life’s work data

- Models tend to assume clear structures and phases
  - Tends to fit project-funded model of research
  - Less relevant for ongoing ‘unfunded’ research
  - Datasets may evolve in steps or more gradually
  - Retrospective corrections
  - Difficulties separating data from (online) presentation
Diversity of data management

Do you conduct your research as part of a team, or as an individual?

- Longitudinal data in Medicine & Social sciences
- Long-term observational data
- Accumulative and interpretative data in the Humanities
- Raw/processed experimental data in physical sciences
- Re-combinations of existing datasets
- Commercial datasets
- Privacy & consent
- Defined workflows
- Software code

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Disciplinary challenges

• Hard to think in life-cycle terms without infrastructure
• Variety of available disciplinary infrastructures
  – Data sharing an established part of several disciplines
  – Not part of the culture at all in others
• Promoting life-cycle view of research data may help encourage sharing and re-use
How many life-cycles do you need?

- Not all life-cycles relating to research data management illustrate the same thing
  - Curation
  - Research data
  - Research
  - Metadata
  - Specific software / service focussed
Value of lifecycles in the institutional context

- Identifying and overcoming non-optimal practices
- Identifying and overcoming gaps and leaps
- Identifying and assigning responsibilities
- Identifying and addressing ambiguities
- Identifying areas requiring collaboration
Juxtaposition of ideal and actual

Idealized lifecycle

Actual Process

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Designing tools to plug gaps
Many researchers reluctant to invest a lot of time in documentation

Re-use of metadata is therefore sensible

One-click data export / archive
Defining institutional responsibilities

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Defining institutional responsibilities

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Defining institutional responsibilities

Guidance, training, & planning services (Research Services)

Preservation, curation, & publication services (Library Services)

Data gathering, manipulation, & storage services (active data) (IT Services)

Deposit & discovery services (Library Services)

Central coordination

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Defining institutional responsibility

Academic Divisions & Departments

Research Services

Oxford eResearch Centre (OeRC)

Coordination

Bodleian Libraries

IT Services

DataStage

Online Research Data Service

Departmental data stores

Institutional RDM Policy

Training & Support

Research Services

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Advice Researchers Request

• How should I manage my data?
• What should I put in a data management plan?
• What technologies are available?
• How should we go about setting up a data management infrastructure for our research group?
• How can we improve and secure a research database we have built in-house?
• I need to submit my application for a 5-year European research project tomorrow. How much should I budget for IT and data management?
Where do researchers turn for advice?

“Do you know where you would go for help if you needed help writing a data management plan?”

- IT Services
- Departmental staff (including IT staff)
- Academics & Colleagues
- Research Services (including divisional & departmental)
- National bodies (e.g. UKDA)
- General web search
- Libraries
- OeRC
- University website
- Funders
- RDM website
- Other (suggestions with only 1 response)
Evolution of RDM support websites

- Is a lifecycle the best way to conceptualize support?
Coordinating support

• Website – www.researchdata.ox.ac.uk

• Single point of contact for researchers – researchdata@ox.ac.uk

• Awareness of who are the ‘experts’, via a ‘directory of expertise’
  – We’re using a list in a shared Google Doc consisting of: name, email address, department, area(s) of expertise

• Staff mailing list for discussing issues

• RT queue for handling enquiries, visible to everyone in the support group
  – Tickets taken by the person best positioned to help (or available)
Coordinating support
Final observations

• Life-cycle representations useful for defining ‘vision’ of integrated institutional research data management infrastructure
  – Helps to convey benefits of good data management
  – Provides a means to understand responsibilities

• Be wary of oversimplification
  – Limited usefulness for structuring researcher support
  – Some tools/services belong in more than one place on the research lifecycle – can encourage shoe-horning
Questions?