

Digital Data and Archaeology: Management, Preservation and Publishing

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Data Management

Archaeology Data Service
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Data Management

Data Lifecycle

Data Management Plan
↓
Informs all other stages

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Data Management

Data Management Plans

Data management plans should cover the following:

- Description of the data to be collected / created
- Standards / methodologies for data collection and management
- Ethics and Intellectual Property concerns or restrictions
- Plans for data sharing and access
- Strategy for long-term preservation

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Data Cycles & Management Plans

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Data Cycles & Management Plans

- What data will I produce?

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Data Cycles & Management Plans

- What data will I produce?
 - Text documents
 - Artefact analyses
 - Sample analyses
 - Survey data
 - Drawings
 - Photographs
 - Recorded interviews
 - Etc...

http://www.jiscdigitalmedia.ac.uk/infokit/file_formats/digital-file-formats

- Who will own data? Do I need permissions?

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Data Cycles & Management Plans

- What data will I produce?
- How will I organise the data?

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Data Cycles & Management Plans

- What data will I produce?
- How will I organise the data?
 - File structure
 - File naming and versioning
 - What file formats will I use?
 - Which software will I use?
 - Roughly how many files?
 - How will I describe and document my data? – **METADATA**

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Guides to Good Practice

- Digital Data (general)
- GIS
- CAD
- Geophysics
- AP & Remote Sensing
- Excavation & Fieldwork
- Virtual Reality
- UAV

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Data Cycles & Management Plans

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 - File structure
 - File naming and versioning
 - What file formats will I use?
 - Which software will I use?
 - Roughly how many files?
 - How will I describe and document my data? – **METADATA**
 - Do I have to follow any requirements?

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Data Cycles & Management Plans

Talk to the digital repository early!

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Data Cycles & Management Plans

- What standards and quality assurance might I use?

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Data Cycles & Management Plans

- What standards and quality assurance might I use?
- How will I share data?

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Data Cycles & Management Plans

- What standards and quality assurance might I use?
- How will I share data?
- How will I backup data?

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Data Cycles & Management Plans

- What standards and quality assurance might I use?
- How will I share data?
- How will I backup data?
- When will I evaluate if my data management is working?
 - Is the file structure / naming understandable to others?
 - Are further data required?
 - Are new data types required?

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Data Cycles & Management Plans

- What data will I keep?
Selection and Retention strategy

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Data Cycles & Management Plans

- What data will be deposited and where?

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Data Cycles & Management Plans

- What data will be deposited and where?
- Define the core data set of the project
- Which data are supplementary?
- Licences
- Metadata
- Where? **Trusted Repository!**

Talk to the digital repository early!

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Digital Preservation Standards

OAI Model

- ISO standard 14721
- Established by the Consultative Committee for Space Data Systems (CCSDS)


Data Seal of Approval

- 16 guidelines for data producers, repositories & users
- Accreditation Process

NESTOR

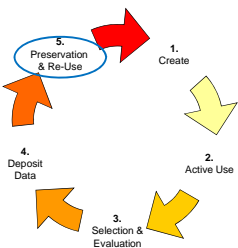
- Extended self-assessment process based on the DIN 31644 standard "Criteria for trustworthy digital archives"

ISO 16363 Audit



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Data Cycles & Management Plans



- Who will be interested in re-using the data?
- Who will be interested in re-using the data?
- Is there sufficient information to allow easy re-use of the data?

"The single most useful thing you can do to ensure the long-term preservation of your data is to plan for it to be re-used. Imagining it being reused by someone else who has never met you and who never will meet you, will cause you to approach the creation and design of your data in a new light."

Moreover, studies show that re-use of data is the single surest way of maintaining the integrity of data and tracking errors and problems with it. In short, always plan for re-use"

Prof. Julian Richards, Director ADS.

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Why bother?

- provides a **practical starting point** to help structure thoughts on your research/project
- **improves efficiency**
- help others understand the **research process** and how it developed
- helps plan for data **reuse** by others, so the full potential of a research can be realised. Its lifecycle doesn't end here!

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- So we don't end up with examples like this!

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- Cats-in-a-tent photos....and more



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- Cats-in-a-tent photos....and more
- Oral history project with no consent forms and therefore no audio files!

Downloads
We regret that we are unable to offer the archived audio files for this project at present due to copyright restrictions.





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• Cats-in-a-tent photos....and more

• Oral history project with no consent forms and therefore no audio files!

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• Project in the red sea with videos of the rock of Gibraltar



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• Cats-in-a-tent photos....and more

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• Project in the red sea with videos of the rock of Gibraltar

• **Recently** an archive with the wrong archaeological site name in all the metadata



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Odd one out – which image was included in a deposit but is not on the ADS web site?



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- shows we take **research integrity** seriously and therefore increases trust in the archaeological community
- **it is good practice**
- **funding bodies** require it!

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Creating a DMP: Some useful sources



General guidance on data management and the creation of plans :-
<http://www.dcc.ac.uk/resources/data-management-plans>

DMP ONLINE
<https://dmponline.dcc.ac.uk/>



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