SERSCIDA D4.2: Data Service Training Manual

Title:	D4.2 Training modules for establishment of social sciences digital data archives. Version 1.2
Work Package:	4
Authors:	UK Data Archive, including links to materials produced by ADP, FORS and SND.
Date:	September 2013

Description and background:

The deliverable comprises training material to support the formation of new data services in the West Balkans and has been compiled following the SERSCIDA training event 'How to set up and run a data service' which was held at the UK Data Archive, Colchester, in July 2013. The materials, documents and information it provides have not yet been applied to actual tasks in the formation of a new data service and may therefore require alteration as they begin to be used during later stages of the SERSCIDA project. The documents that are referenced are in use at the UK Data Archive or, where they have been provided by other archives, in the originating organisation.

The first big task was to gain a clear understanding of what types of information and what documents would be needed by an organisation embarking on the establishment of a new data service. Based on the structure of the July workshop which followed the functions of the OAIS reference model, and on feedback from partners who attended the training session, a list of existing documents in use by the CESSDA partners was collated and was used as a lookup table for structuring the training material.

Each section begins with an overview of the function and is followed by summary information relating to the range of documents that a new data service will need to have in place to inform and manage its work. For example, for Pre-Ingest, a collections development policy is recommended; procedures should be in place for managing the ingest process; national policies may influence the organisation's policy; and deposit forms and licences will be required. The Pre-Ingest section has links to several examples of such documents which can be used either as templates or to otherwise inform new service providers.

There are significant advantages to the use of links including: many of the documents relate to a particular organisation and will be updated by the organisation, if documents are copied onto a separate site, there will be resource implications in keeping it up to date; and bringing documents into a single, new site would mean the site owner would have the additional burden of checking that IP is appropriately clear for each document but by linking to the original document on its original site, the IP will be managed locally.

Significant consideration has been given to the delivery mechanism for this material including the possibility of providing it in hard copy form. This is unlikely to be practical because hard copy does not permit easy, immediate access to the web-based materials.

There is general agreement that because so much information and so many of the documents are accessible via the web, the modules lend themselves to being distributed in a digital format. This version, as a PDF, will be made available via the UK Data Archive's SERSCIDA project page, and the SERSCIDA website.

Change Log

Version	Description	Author(s)
1.0	Initial version	TE, RH, HB (UKDA)
1.1	Minor corrections	TE
1.2	Additional content added, rationalisation of sections, corrections	TE

Contents

1. Introduction 4
Background to the manual 4
CESSDA and archives overview 5

2. Staffing and Management 7
Overview 7
Staffing and recruitment 7
Business management 7
Records management 9

4. Pre-Ingest 10
Overview 10
Pre-Ingest policies and procedures 10
Deposit process 11
Data management guidance and web resources 12
Data management training 13

5. Ingest 14
Overview 14
Processing standards 14
Ingest procedures 15
Indexing 16

6. Preservation, Metadata and Security 17
Overview 17
Preservation 17
Metadata and identifiers 18
Trust and Security Certification 18

7. Access 20
Overview 20
Rights and access management 20
Data protection and secure data access 22

8. User Support 23
Overview 23
User query procedures 23
User support resources 24

9. Communications and Publicity 26
Overview 26
Procedures and standards 26
Blogging and social media 27

Appendix 1. Recommended Standards and Tools 28

Appendix 2. UK Data Archive Job Descriptions 30

1. Introduction

Background to the manual

How to set up and run a data service workshop presentation:

Overview (July 2013)

This manual is based on the UK Data Archive's 'How to set up and run a data service' annual training event, aimed at supporting delegates charged with establishing new data services. The manual has been designed to complement the event, by linking to and summarising the core documentation that underpins a trusted digital repository and its support services. The 'How to run' event emphasises first hand learning about the acquisition, preparation, storing and sharing of social science data, including microdata, aggregate and qualitative data. The Archive has over 40 years experience in selecting, ingesting, curating, providing access to and promoting data. We are a designated Place of Deposit for The National Archives and are internationally acknowledged experts in this field.

The guide is split up into sections which correspond to functional areas within a slightly expanded version of the Open Archival Information System Reference Model (OAIS), as used by the UK Data Archive. The OAIS model is a widely accepted industry standard model for digital archiving.

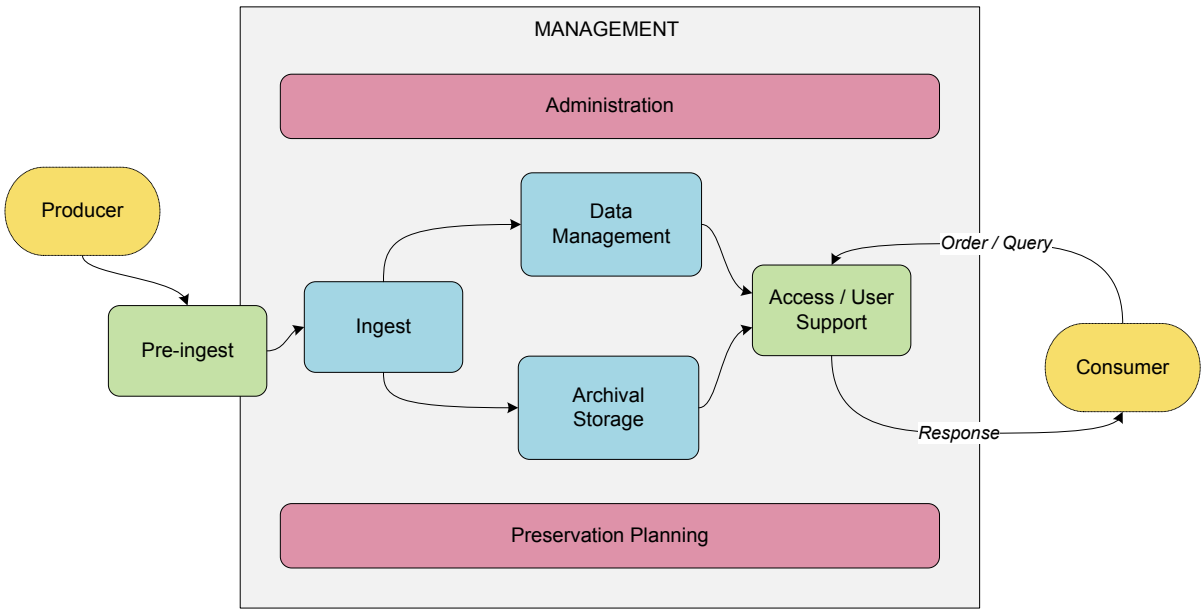

Figure 1. The UK Data Archive's adapted version of OAIS model, which includes additional (green) functions Pre-Ingest and User Support. Arrows represent the movement of information through the system.

Each section begins with a brief overview, and link to the relevant PowerPoint presentation from the July 2013 'How to set up and run a data service' event. In each section links are provided, or summaries given, of the documentation that underpins or describes activity in

that area. Much of this documentation is essential if an organisation is hoping to successfully complete a Data Seal of Approval assessment. Each external resource is clearly labelled with availability information, in the following tabled format:

Organisation	Availability (including URL)	Languages
UKDA	Public (hyperlink)	English
SND	Available on request	English, Swedish

Availability is recorded according to the following classification:

- **Public**: Available online, hyperlink to the pertinent location.
- **Available on request**: Not public but access may be granted by the relevant organisation, where appropriate.
- **Internal**: Not available externally at this stage.

Irrespective of availability in multiple languages, only one location is listed for each resource. Where documents are listed as being available in multiple languages, requests for access to these alternative versions should go to the relevant organisation. Any UK Data Archive documents classified as 'Available on request' or 'Internal' are briefly summarised in the text.

Finally, we provide generic job specifications for roles within each of the functional areas, outlining the key duties and skills required. A generic version containing the skills required of all staff members can be found in section 2 (Staffing and Management) of this document.

CESSDA and archives overview

CESSDA has existed since 1976 as an umbrella organisation for social science data archives across Europe. As of 2013 CESSDA has become a permanent legal entity officially known as CESSDA AS. Its mission remains unchanged, the aim of member organisations being to work together to improve access to data for researchers and students. In this training manual, documents from four CESSDA member archives will be referenced, although the focus will be on the UK Data Archive's materials. You can find links to each of these organisations' websites below, along with a key to the acronyms that will be used throughout this document to refer to the organisations:

Name	Acronym	URL
UK Data Archive	UKDA	http://www.data-archive.ac.uk/
Slovenian Social Science Data Archives	ADP	http://www.adp.fdv.uni-lj.si/eng/
Swiss Foundation for Research in Social Sciences	FORS	http://www2.unil.ch/daris/?lang=en

Swedish National Data Service	SND	http://snd.gu.se/en

Strategic plans

UKDA	1994-2004 2010-2015	English
SND	2008-2012	Swedish

At the beginning of each new phase of funding, many organisations publish a strategic plan outlining their aims for the coming years. These offer a level of insight into the history of the organisation, and its future direction.

Annual reporting

UKDA	http://ukdataservice.ac.uk/about-us/reports.aspx	English
ADP	Available on request	Slovenian
FORS	http://www2.unil.ch/fors/spip.php?rubrique146&lang=en	English
SND	http://snd.gu.se/en/about-us/publications	English, Swedish

Reports are produced annually for the benefit of stakeholders, and provide a concise summary of the activities and achievements of the service during that year. Similarly to the strategic plans above, strategic provide insight into these organisation yearly activities.

Governance structure

UKDA	http://ukdataservice.ac.uk/about-us/stakeholders.aspx#/tab-host-organisations	English
ADP	http://www.fdv.uni-lj.si/docs/default-source/katalog-ijz/pravila-o-organizaciji-in-delovanju-fdv.doc	Slovenian
FORS	http://www2.unil.ch/fors/spip.php?rubrique27&lang=en	English

The UK Data Archive is funded primarily by the ESRC, and has a significant role in the delivery of their UK Data Service. The governance structure of the UK Data Service reflects the host organisations involved in service delivery, including the UK Data Archive as the managing organisation. The group of organisations involved is described in the link above, as is the board of governors representing these organisations.

ADP is part of the Slovenian Institute of Social Sciences, and has a head of Department who reports to a Faculty head. The document above contains some information on the organisational rules of the Faculty of Social Sciences, and information on the ADP scientific board and their obligations.

2. Staffing and Management

Overview

Managerial structure

The UK Data Archive's managerial structure shares similarities with the OAIS model as described in section 1 (Introduction) of this guide. The UK Data Archive is led by a Director. Four Associate Directors have responsibility for one or more of the OAIS functional areas, services and projects within the UK Data Archive. They report to the Director. A number of middle level managers report to each of the Associate Directors.

See Figure 2. below for a diagramatic representation of the Archive's functional and managerial structure.

Staffing and recruitment

Job roles and descriptions

Job roles at the UK Data Archive generally involve a set of duties that are specific to the relevant area of the Archive's managerial structure (see above) – and generally correspond to an OAIS function. Information on the key skills required for staff in each area of the Archive are listed under the 'Overview' heading each section.

For further information on job roles and the principal duties within each of the Archive's areas of activity, see Appendix 1. This information is provided to help facilitate recruitment by enabling employers to 'pick and mix' the essential skills and match them to the available staff budget.

Business management

Business continuity and incident management procedures

UKDA	UKDA091-BusinessContinuityIncidentManagementProcedures

This document describes the procedures to be followed in case of an incident or event resulting in disruption to business activities, including:

- Definition of critical business activities and assets of the Archive.
- Description and examples of the levels of disruption, security events, incidents and weaknesses which may occur and the procedures for logging and reviewing the incident.
- Procedures to monitor, test and backup systems to ensure business continuity along with a succession plan to be implemented in case of loss of funding.
- A communications plan for informing partners and users of unplanned service problems and the progress of remedial action.
- Specific procedures for dealing with emergencies, problems with utilities (e.g. power, telephony, air conditioning, burst water main etc.), security/access to premises (including server room access), problems with information systems (including network services, email, archive websites, archive information systems and computer viruses), unplanned

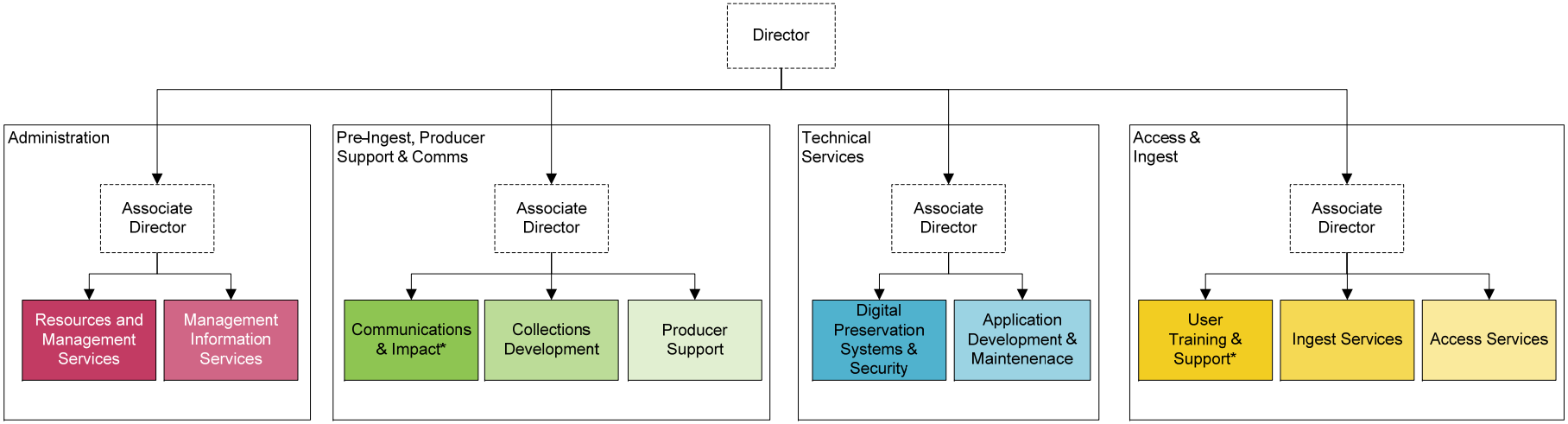

Figure 2. The managerial structure of the UK Data Archive, each coloured box representing a function and associated team, which in turn for part of groups managed by an associate director. *Indicates an area managed by multiple partners within the cross-organisation UK Data Service.

service outages and recovery, data and file security (including corruption or loss of files/data and security and licence breaches) and breaches of the non-disclosure policy.

Records management

Records management policy

UKDA	Available on request (UKDA088-RecordsManagementPolicy)
ADP	Information available on request

This document describes the Archive's policy relating to the management of all operational records produced by the archive, including all formal documents and correspondence related to Archive activities. The policy works alongside UKDA179 – Records Management Strategy. The policy provides an outline of:

- The requirements which must be met for the records of the Archive to be considered a proper record of the activities of the organisation.
- The archive's commitment to adhering to legislative requirements.
- The roles and responsibilities of archive staff in general and the specific requirements of individual staff and sections.
- The requirements for the systems and processes which deal with the records.

Records management strategy

UKDA	Available on request (UKDA179-RecordsManagementStrategy)	English
ADP	Available on request	Slovenian

This document covers the general requirements for records management within the UK Data Archive. For this purpose, records are defined as 'information, created or received in the course of business, and captured in a paper or electronic form, which relates to the core business of the archive'. The strategy:

- Outlines the types of information that constitute records within the Archive and their properties, and the principles which must govern the development of the Records Management System.
- Provides a flexible framework for the records management system.
- Includes information about the business classification scheme maintained by the Archive (developed from JISC's Higher Education BCS) and the management of legally binding documents held by the archive.
- Outlines the general archive approach to meeting the key requirements of making records present, accessible, interpreted, authentic, maintained and documented.

4. Pre-Ingest

Overview

'How to set up an run a data service' workshop presentation:

Pre-Ingest Services (July 2013)

Supporting data creators and best practice in data management (July 2013)

While Pre-Ingest is not a function in the standard OAIS model, activities in this area can form a significant part of a data service's activity. Dealing with all aspects of an organisation's data-related activities prior to the beginning of ingest (i.e. before any processing occurs), much of the Pre-Ingest stage revolves around negotiation with the data producers and/or depositors.

A sub-function within Pre-Ingest not related to acquisitions is Producer Support. Activities in this area involve engagement with active researchers and other data producers (or creators), prior to the completion of research. These will not be areas that all data services are active in, but can be very significant where an institution negotiates with research data producers or has a national advisory capacity to the research community.

The following may be viewed as important skills for Producer Support staff:

- Experience of data management.
- Experience of using archives or knowledge of archiving procedures.
- Experience of undertaking research and data analysis in the social sciences, both quantitative and qualitative.

Pre-Ingest policies and procedures

Collections Development Policy

UKDA	Public	English
ADP	Available on request	Slovenian

A Collections Development Policy provides an overview of the selection and appraisal criteria applied to offers of data, dictating whether or not they are accepted into the collection. It outlines the principles by which an archive develops its data holdings to meet the needs of its stakeholder communities.

Pre-Ingest Procedures

UKDA	Available on request	English

ADP	Public (collection scope)	English, Slovenian
FORS	Public (for qualitative data)	English, French, German
SND	Available on request	English, Swedish

This document should describe procedures relating to the acquisition of new data, potentially including:

- How to manage correspondence surrounding a new acquisition (or 'submission').
- How data offers are made by depositors and how the pre-ingest team undertake a data appraisal (i.e. an assessment of data quality/value).
- Detail potential 'routes' for data, including what happens if data is rejected. This is particularly important if an archive has multiple sub-collections and there are multiple associated submission methods.
- Procedures for the data submission process including the actions required of both the depositor and the archive.
- Where accepted data will move on to the ingest phase, a description of what will happen to the material generated by pre-ingest procedures after this point.
- A practical guide to the documentation of new acquisitions in the locally adopted information management tool.

National Research Data Polices

ESRC (UK)	http://www.esrc.ac.uk/about-esrc/information/data-policy.aspx

The UK's Economic and Social Research Council (ESRC) have published a data policy which clarifies their position on research data outputs resulting from their funded research. National policies have not been rolled out in every sector, or indeed, every country. Where they *have* been published though, they are likely to many impact areas across a national data service, particularly the Pre-Ingest function.

Deposit process

Data deposit form

UKDA	Public (doc)	English
ADP	Public (doc)	Slovenian
SND	Public (web)	English

The information captured at this stage goes on to form the basis of the metadata record for the resulting data collection(s), and should reflect the metadata profile adopted (see 6. Preservation, Metadata and Security).

Depositor licence agreement

UKDA	Public	English
ADP	Available on request	English, Slovenian
FORS	Public	English, French, German
SND	Public	English, Swedish

The depositor licence is the legal agreement between the depositor and the archive, and clarifies the rights of both parties, copyright/ownership of the data, and access conditions for the disseminated data.

Depositor web guidance

UKDA	http://ukdataservice.ac.uk/deposit-data.aspx	English
ADP	http://www.adp.fdv.uni-lj.si/za_uporabnike/izrocanje_podatkov/	Slovenian
FORS	http://www2.unil.ch/daris/spip.php?rubrique59&lang=en	English, French, German
SND	http://snd.gu.se/en/deposit-data	English, Swedish

Detailed description of the routes through which data can be deposited, ensuring that a depositor makes right choice where several options are available.

Data management guidance and web resources

Managing and sharing data

UKDA	Handbook (PDF)	English
	Web guidance	English
ADP	Web guidance	Slovenian
SND	Web guidance	English, Swedish

These materials are designed for researchers who are involved in actively generating and managing research data. They should provide guidance on all the areas that must be considered when planning how to manage research data, in order to enable the eventual sharing of high quality re-usable data. Considerations include file formats, storage and backup choices and data documentation.

Data management training

Training pack

UKDA	http://www.data-archive.ac.uk/media/335419/trainingresources.zip

Training events

UKDA	http://www.data-archive.ac.uk/create-manage/advice-training/events-archive

The UK Data Archive runs training events on data management for a wide range of audiences, from early career researchers to experienced academics with specialist data interests. This training follows a similar structure to the handbook mentioned above, but is a chance for the attendee to gain more hands on experience and tailored advice.

The training pack is a complementary resource to both the events and the handbook, providing practical exercises and examples of how and why data management skills can be applied.

5. Ingest

Overview

'How to set up an run a data service' workshop presentations:

Processing and cataloguing data and documentation (July 2013)

Processing and cataloguing data and documentation: Qualitative (July 2013)

Ingest is one of the core functions of the OAIS model. The processes within this functional area involve the transformation of the deposited information package (Submission Information Package in OAIS terms) into an information package that will be kept in archival storage (the Archival Information Package). Ingest can involve, as in the case of the UK Data Archive, a considerable amount of human mediated processing and data expertise. Activities at this stage ultimately ensure that data is ready for long term preservation and that a high quality data package is served to users.

Documentation of Ingest processes is an important requirement for any archive hoping to meet the Data Seal of Approval requirements, and the core documents are listed below. The UK Data Archive has produced a quick reference processing guide which provides a condensed account of Ingest procedures. Similarly, the Slovenian Social Science Data Archives has a high level summary available on their website.

The following may be viewed as important skills for ingest staff:

- Experience with statistical software packages, such as SPSS.
- A good understanding of basic social science [or related] concepts and statistical methods.
- Knowledge and experience of relevant international standards in data service provision.
- A background in quantitative social science, and a good understanding of the data user's perspective.
- For handling qualitative data, knowledge of CAQDAS packages and anonymisation techniques.

Processing standards

Data processing standards

UKDA	Public	English
ADP	Available on request	Slovenian

This document provides overall terms of reference for the level of processing applied to a new acquisition. At the UK Data Archive a processing level (A*, A, B or C) is assigned to any new data collection, based on an assessment of it's condition, quality, and anticipated potential for secondary use. This level assigned dictates the extent of processing carried out.

Ingest procedures

These in-depth procedural documents are clearly named to indicate their scope. Each covers a particular area of processing activity.

Quantitative data processing

UKDA	Public	English
ADP	Available on request	Slovenian

Qualitative data processing

UKDA	Public	English
FORS	Public	English, French, German

Sensitive data processing

UKDA	Internal	English
ADP	Available on request	Slovenian

Ingest procedures are likely to differ for sensitive data and could, depending on the extent of the differences, be integrated into ingest procedures for standard data or form their own document. Important procedural differences may include:

- Clear marking of data and associated materials (both physical and digital) as restricted.
- Careful management of the locations sensitive data are stored at, including the use of encrypted drives and file shredding programs.
- Handling of sensitive materials only by trained and approved staff members.
- The use of only vetted and secured processing machines.

There are many issues to be considered if the decision is made to preserve and disseminate sensitive data, and being poorly prepared could have potentially serious consequences. The advice of an expert should be sought if this route is taken.

Documentation processing

UKDA	Public	English
ADP	Available on request	Slovenian

Although distinct procedures exist for documentation (as opposed to data) processing, much of this work is inextricably linked with data processing. This may even entail creating original documentation based on an examination of the data.

Cataloguing

UKDA	Public	English
ADP	Available on request	Slovenian

Cataloguing is the process of adding and enhancing the metadata describing a particular data collection. Not only is it essential for resource discovery, but it is important in helping a user interpret and re-use the data. Similarly to documentation processing, cataloguing is necessarily linked to data processing, and will again be carried out alongside other Ingest activities. The UK Data Archive's metadata 'profile' (a set of elements), is based on DDI 2.1 with customisation to fit our user's needs, and other internal monitoring requirements. For a more technical perspective on metadata and relevant standards, see 6. Preservation, Metadata and Security.

The UK Data Archive document describing cataloguing procedures, linked above, includes a description of the process of assigning a **DOI (Digital Object Identifier) persistent identifier** to a study. For a more technical description of the use of DOI's at the UK Data Archive, see 6. Preservation, Metadata and Security.

Indexing

In order to ensure consistent use of keywords across a large ingest team, the UK Data Archive maintains a procedural document describing keyword indexing procedures. The Archive uses a vocabulary called the Humanities and Social Science Electronic Thesaurus (HASSET). This detailed subject thesaurus has been developed in-house over more than 20 years. HASSET can be viewed online and is available to licence for other organisations. More information on HASSET can be found in section 6 (Preservation, Metadata and Security) or via the UK Data Archive website.

6. Preservation, Metadata and Security

Overview

'How to set up an run a data service' workshop presentation:

Data Preservation and Security (July 2013)

Technical services is used here as a very broad term to describe technical activities relating to every aspect of the archival process, including digital preservation activities, the metadata profile implemented, and information security. Much of the development activity of a data service will be platform specific, so only the more generic points are covered here. Please note that the 'How to...' presentation linked to above does not cover every topic listed below - it deals only with IT infrastructure relating to preservation and security.

This poster provides some background on ADP's technical infrastructure.

The following may be viewed as important skills for technical services staff (please note that specifics will depend on internal technical choices and policies):

- Experience in gathering, analysing and prioritising requirements for software systems in a production environment.
- Experience in the design, implementation, and quality assurance of software systems in a production environment.
- Experience of software project planning and management in a production environment.
- Experience of using source code management tools
- A structured and methodical approach to project management.
- Experience of using an issue tracking system
- Experience of scripting and build tools
- Experience with trouble-shooting and problem-solving for computing systems including servers, networks and peripheral.
- Ability to install and support server/workstation hardware and software.
- Knowledge of Microsoft server and office suite products.

Preservation

Preservation policy

UKDA	Public	English
ADP	Public	Slovenian

This policy outlines the principles which underpin the main activities of the archive: the active preservation of digital resources for use and re-use within its core user community. It specifically aims to only cover those resources which are designated as being ‘for preservation’, not other resources such as websites. Preservation planning ensures that data

will remain accessible into the future, examining the methods in place to securely store resources while maintaining integrity and quality.

Metadata and identifiers

Metadata standards, versioning and management

UKDA	http://data-archive.ac.uk/create-manage/document/metadata
SND	http://snd.gu.se/en/deposit-data/documentation
ADP	http://www.adp.fdv.uni-lj.si/eng/za_uporabnike/o_podatkih/

An archival metadata profile should reflect both the data you disseminate and the level of preservation provided. Metadata can describe digital objects at many levels (study, file, variable), and with many different aims (discovery, geographical context, . At the UK Data Archive, the metadata profile has grown organically over time, but has remained compliant with the Data Documentation Initiative (DDI) metadata standard, version 2.1.

Thesauri and controlled vocabularies

UKDA	Available on request (HASSET Thesaurus)

HASSET is a widely used thesaurus within social science data archiving. It is currently being lined up with

Persistent identifiers

The UK Data Archive assigns Digital Object Identifiers (DOIs) to its data collections, a popular standard for persistent identifiers (PIDs). The Archive uses an external service called DataCite to 'mint' (the persistent identification world term for ‘create’) new DOIs. This service is a international collaboration with an aim for pushing forward the persistent identification of datasets. In simplified terms, the process for assigning a DOI to a dataset is as follows:

- When Ingest (see section 5) processing is completed for any new study, the team member responsible initiates a request for a new DOI.
- The format of the DOI is automatically constructed by the Archive based on the study numbering system, e.g. Study Number (SN) 1234 would have the following DOI: http://dx.doi.org/10.5255/UKDA-SN-1234-1.
- At this point, a subset of our study level metadata is sent to DataCite, along with a specified DOI string.
- If all the metadata requirements have been met, DataCite add the metadata to their internal registry and send back a confirmation message to the Archive.

See section 8 (User Support) for more information on persistent identifiers and citation from a user perspective.

Trust and Security Certification

Trusted Digital Repositories and Data Seal of Approval

UKDA	DSA TDA	English
ADP	TDA	Slovenian

These web pages briefly describe the organisations' compliance with two significant standards within digital preservation and archives.

ISO 27001 Information Security Procedures

UKDA	Internal	English

This document describes the UK Data Archive's information security management policy associated with the ISO 27001:2005 standard, particularly with regards to data acquisition, preservation and dissemination activities. The policy includes:

- Required inputs for the management review which the Archive is required to hold annually.
- The role and purpose of the Information Security Management Group.
- Procedures for authorisation, implementation, monitoring, review, maintenance and improvement of the Information Security Management System.
- Procedures for analysing and assessing risk levels and the framework for a risk treatment plan.
- Procedures for corrective and preventative action and incident management.

7. Access

Overview

'How to set up and run a data service' workshop presentation:

Accessing Data (July 2013)

Access is one of the functional areas of the OAIS model, and covers activities involving service provision and disseminating data packages to users. I will also cover some Access Support activities.

At the UK Data Archive, access from a user perspective primarily occurs within the Discover interface, a searching and browsing tool that allows users to locate studies (data collections) and view the rich metadata record and documentation files associated with them. Attempts to download materials utilise an ordering system, by which users are approved access to materials after agreeing to particular terms and conditions. The service as it appears to a user is built on a number of controlled documents and internal systems.

The following may be viewed as important skills for access staff:

- Knowledge of survey methods / research techniques and understanding of the structure and analysis of social science research data.
- Experience with statistical software packages, such as SPSS.
- Interviewing techniques and usability methods.
- Customer service skills.
- Good written and oral communication skills.
- Ability to communicate with audiences of differing abilities.
- Familiarity with statistical disclosure control issues and techniques (For secure access).
- The ability to examine dataset documentation and data files in order to investigate queries about dataset suitability and dataset content.

The following may be viewed as important skills for resource discovery/thesaurus staff:

- A degree or higher degree which includes one or more of the following: social science; languages; computational linguistics; information management, or equivalent experience.
- Sound understanding of thesaurus structure, terminology, maintenance and use.
- A background (or suitable experience) in social science.
- A good understanding of SKOS and RDF.
- Experience of providing training or of teaching.

Rights and access management

Rights and access management strategy

UKDA	Available on request (UKDA190-RightsAccessStrategy)	English
ADP	Public (web)	English, Slovenian

The UK Data Archive document the Archive's strategy for the management and transfer of rights between parties involved in the production, acquisition, ingest, preservation of and access to digital resources (including but not limited to data collections). It does not cover the physical access to resources, or authentication and authorisation which are managed separately. The areas of coverage include:

- A statement on open access resources.
- Detailed information on the transfer of rights between depositor and end user, via the depositor agreement (see 4. Pre-Ingest) and the end user licence (see below).
- An index of the end user licence types, including for tailored licences for teaching data, and for disclosive data.
- Any other licence agreements between the service and other organisations.

End user licensing

UKDA	http://data-archive.ac.uk/media/381244/ukda137-enduserlicence.pdf	English
ADP	http://www.adp.fdv.uni-lj.si/registracija/ (full document generated after registration)	English, Slovenian
FORS	Quantitative data: http://www2.unil.ch/daris/IMG/pdf/end-user_contract_quanti_normal.pdf Qualitative data: http://www2.unil.ch/daris/IMG/pdf/end-user_contract_quali_research.pdf Qualitative teaching data: http://www2.unil.ch/daris/IMG/pdf/end-user_contract_quali_teaching.pdf	English, French, German
SND	http://snd.gu.se/en/search-and-order-data/conditions	English, Swedish

An end user licence specifies the conditions under which a user is granted access to a data collection, and how they may use those data.

There are additional licence types available for certain kinds of data, including special licence and secure data access.

Access support procedures

UKDA	Internal	English
ADP	Available on request	Slovenian

Due to the considerable variety of access conditions applying to the UK Data Archive's data collections, there may be complex negotiations required prior to granting an end user access. The procedural documents that support the activities of the Access team are many, but some of the most significant areas of coverage are summarised below:

- Processing new 'orders' (requests for download access to datasets), particularly any human interaction required to grant an end user access. For example, negotiation of a commercial licence with the original depositor.
- Tracking queries from users regarding access to data collections.
- Application forms for users to apply for access to restricted resources.
- Gathering statistics and creating reports on the usage of data.
- A key to the access codes applied to data collections during cataloguing (see 5. Ingest).

Access guidance

UKDA	http://ukdataservice.ac.uk/get-data/how-to-access.aspx	English
SND	http://snd.gu.se/en/catalogue/order-data	English, Swedish

This web guidance provides instruction for users on methods of data access.

Data protection and secure data access

UKDA	Public (microdata handling) Public (web - secure access)	English
ADP	Public (web)	English, Slovenian
FORS	Public (web)	English, French, German

Secure access as part of the UK Data Service is described in detail on the service website. The UK Data Archive has also produced a document that provides guidance to users on handling sensitive microdata, which the UK Data Service delivers through this secure data access system.

8. User Support

Overview

'How to set up an run a data service' workshop presentation:

Supporting Users (July 2013)

User Support is not a traditional OAIS function, but is implicit in the part of the model indicating a two way flow between end users and the access function. User Support is such a fundamental part of the UK Data Archive's activities, that is designated explicitly in our functional model. User Support, as opposed to Access (and Access support), involves offering guidance, resources and training to **end users**, i.e. those actually downloading and using the data.

The following may be viewed as important skills for user support and training staff:

- Experience in the secondary analysis of large and complex datasets, preferably including one or more of the key data series currently held by the organisation.
- Familiarisation with a range of computing environments and statistical analysis software, e.g. SPSS, Stata.
- The ability to deal with multiple priorities and to juggle competing demands from many users.
- The ability to examine dataset documentation and data files in order to investigate queries about dataset suitability and dataset content.

User query procedures

UKDA	Internal	English
ADP	Public (NESSTAR)	English, Slovenian

This document should describe the procedures involved in the User Support teams' management of user queries, including logging and tracking. A lot of this documentation will be specific to the query tracking software you use, but should generally include:

- Instructions on how to handle queries from different sources including telephone, query tracking systems and email.
- Logging new queries and managing them as the situation changes (e.g. additional information given or query resolved).
- Referral of queries to non -User Support staff, including external organisations.
- Templates for query responses.
- Basic instructions for dealing with certain types of common query.
- Creating reports based on the query tracking system, to allow rigorous monitoring of the queries dealt with.

User support resources

User support web guidance

UKDA	http://ukdataservice.ac.uk/use-data.aspx	English
ADP	http://www.adp.fdv.uni-lj.si/blog/2013/blog/kako-do-podatkov/#axzz2acYlnymr	Slovenian

Dataset guides and teaching materials

UKDA	http://ukdataservice.ac.uk/get-data/key-data.aspx (key data list) http://discover.ukdataservice.ac.uk/?sf=User%20guides&df=GuideTypeTextFacet_Dataset (dataset guides)	English
ADP	http://www.adp.fdv.uni-lj.si/blog/2013/blog/kako-do-podatkov/#axzz2acYlnymr	Slovenian

These resources provide indepth information on popular datasets.

Data citation

UKDA	http://ukdataservice.ac.uk/use-data/citing-data.aspx	English
ADP	http://www.adp.fdv.uni-lj.si/blog/2013/blog/kako-do-podatkov/#axzz2acYlnymr	Slovenian
FORS	http://www2.unil.ch/daris/IMG/pdf/CCS_FORM.pdf (included in EUL)	English

These pages present advice on citing data. A generally accepted consensus on citation format has yet to emerge in the data world, and as such organisations will tend to specify their own, possibly even as part of the data license conditions (see 7. Access).

The UK Data Archive recommends the following citation format:

- Creator(s). Title, Year [Type]. Edition. Colchester, Essex: UK Data Archive [distributor], Published Date. Study Number, DOI

SND recommend the following citation format:

- Creator(s). Title, Year [Type]. Department of Political Science. Gothenburg, Sweden: Swedish National Data Service (SND) [distributor].

At ADP each study description a MARC bibliographic citation (see http://www.adp.fdv.uni-lj.si/opisi/ads08/). In the future, ADP are planning to offer RIS format versions of study description that can be imported in Mendeley, End Note and similar software. The importance of citation is especially emphasised in all lectures and presentations about ADP.

Frequently Asked Questions

UKDA	http://ukdataservice.ac.uk/help/faq.aspx	English

The Frequently Asked Question (FAQ) section of the UK Data Service website is a valuable resource for general query handling without the need for human mediation. The topics covered include a broad range of activities of the Service.

9. Communications and Publicity

Overview

In the challenging research funding landscapes of today it is imperative that data services are able to demonstrate the impact of their work through clear communication and public engagement. A large part of this activity will tend to focus on organisational websites, particularly providing a steady stream of news articles and event announcements. See the following pages for examples of the kind of work done by the CESSDA partners:

UKDA	http://www.data-archive.ac.uk/news-events(see also http://ukdataservice.ac.uk/news-and-events.aspx)
ADP	http://www.adp.fdv.uni-lj.si/novice/ and http://www.adp.fdv.uni-lj.si/konference-in-dogodki/
FORS	http://www2.unil.ch/fors/spip.php?rubrique7&lang=en
SND	http://snd.gu.se/en/news

The following may be viewed as important skills for communications staff:

- Expertise in web authoring, design and a detailed understanding of website management and quality control standards.
- Use and implementation of web standards (e.g. XHTML, CSS, W3C).
- Experience of using desktop publishing packages, such as Adobe Photoshop, InDesign.
- High degree of computer literacy with proficiency in MS Office Professional (good database skills are essential), Adobe PDF, email, the internet online discussion lists, and expertise in the use of online search and retrieval tools.

Impact and Communications Strategy

UKDA	Draft, to be made public (UKDS-GB-ImpactCommsStrategy)

This document sets out a strategy to achieve and maintain the UK Data Service's 'Pathways to Impact'; a set of objectives toward demonstrating the Service's contribution to excellent research. These impact areas relate not just to the ways in which the data is reused, but also to contributions to the wider research and data service communities. The Service is planning to make this document available in 2013. It includes:

- Identification and prioritisation of target audience and other stakeholders.
- A schedule of potential communications activities including date targets and metrics for measuring success.
- Suggestions of methods to evaluate the overall success of the strategy.

Procedures and standards

Web content procedures

UKDA	Available on request (UKDA114-WebContentManagement-Umbraco)	English
ADP	Available on request	Slovenian

The UK Data Archive uses the Umbraco content management system (CMS) to create and publish web content. This document details the web content production workflow, and includes:

- A description of the overarching website framework, including the purpose of the different testing and live platform instances.
- The user roles in content management, such as editor and approver.
- The edit and publish workflows of the CMS.

Web accessibility standards

UKDA	http://www.data-archive.ac.uk/accessibility

This page describes measures taken to conform to level Triple A of the Web Content Accessibility Guidelines (WCAG). On the more technical side of web accessibility, the Archive also maintains a document (UKDA107_WebUIStandardsComplianceTesting - information available on request) detailing the processes and tools used to check for compliance during website development.

Blogging and social media

UKDA	Twitter (UK Data Archive and UK Data Service); Facebook (UK Data Service)
FORS	Twitter; Facebook

The UK Data Archive maintains a strong social media presence, consisting of a regularly updated Twitter feed, and a Facebook profile. Blogging is emerging as an extremely valuable way to connect with both users of our data, and with other data professionals.

Appendix 1. Recommended Standards and Tools

Recommended standards and vocabularies				
Name	**Type**	**Description**	**Availability**	**URL**
DataCite	DOI + metadata standard	A widely adopted service providing DOIs for data. Also specifies a level of minimum metadata in order to create new DOIs	Priced subscription	http://www.datacite.org/
ISO27001	Information security standard	An international standard for information security, and badge of trust for any organisation hosting sensitive data	Cost for ISO document and assessment	http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=54534
DDI	Metadata: data description	DDI is the standard metadata specification for social science data, and has a large and active international community of users and developers	Free	http://www.ddialliance.org/
QuDEx	Metadata: qualitative data	Complementary to DDI (see above), this metadata standard aids in creating structured descriptions of complex collections; capturing object relationships for example	Free	http://www.data-archive.ac.uk/create-manage/projects/qudex?index=1
Text Encoding Initiative (TEI)	Metadata: qualitative data	Metadata standard for describing interview transcripts	Free	http://www.tei-c.org/index.xml
Statistical Data and Metadata eXchange (SDMX)	Metadata: statistical data	Metadata standard for the exchange of statistical information	Free	http://sdmx.org/
HASSET	Social science thesaurus	The UK Data Archive's HASSET thesaurus has been developed over many years and covers the social sciences and humanities. Used for keyword indexing	Available from UKDA on request	http://data-archive.ac.uk/find/hasset-thesaurus/hasset-licence

Recommended software and tools				
Name	**Type**	**Description**	**Availability**	**URL**
Confluence	Collaborative editing	A Wiki-like platform for collaborative resource editing	Priced licencing	https://www.atlassian.com/software/confluence
SPSS Scripts	Data processing	SPSS has a flexible scripting system that the UK Data Archive uses to handle certain parts of the Ingest process	Available from UKDA on request	N/A
OpenRefine	Data quality control	OpenRefine, previously Google Refine, is a data manipulation tools that the UK Data Archive uses for data cleansing and quality control purposes. Is particularly useful for correcting erroneous text values in tabular data	Free	http://openrefine.org/
AxCrypt	Encryption	Software for encrypting files or batches of files, and secure file deletion after use	Free	http://www.axantum.com/axcrypt/
SafeHouse Explorer	Encryption	Allows creation of encrypted volumes including hard drive partitions and USB sticks	Free	http://www.safehousesoftware.com/SafeHouseExplorer.aspx
ZendTo	File transfer	Self-hosted 'Dropbox-like' software, used for secure file drop off including data deposits	Free	http://zend.to/
StatTransfer	Format conversion	StatTransfer is useful utility for moving between statistical data formats, and supports a very wide range of current software formats	Free	http://stattransfer.com/
JIRA	Query tracking	The UK Data Archive's support services (both internal and external) use JIRA, a query tracking and issue reporting platform	Priced licencing	https://www.atlassian.com/software/jira
NESSTAR	Storage and dissemination	NESSTAR is tool for disseminating quantitative data, and includes a user friendly interface for the exploration and analysis of tabular data	Free	http://www.nesstar.com/

Appendix 2. UK Data Archive Job Descriptions

The tables below focus on responsibilities and skills required for operational activities and reflect the grading structure of a long-established organisation. There may be reasons for altering these during the formative period of a new data service. In the tables the grade column terms correspond to:

- Grade 9 = middle level manager with line management responsibilities
- Grade 8 = staff member with demonstrable experience relating to the function in which they are located, likely to participate in training of less experienced staff
- Grade 7 = staff with good, general experience or education appropriate to their area of work (for example, research methods if working in user support); likely to be a developmental role.
- Grade 6 = likely to be recent graduates; inexperienced in relation to OAIS functions but with excellent general skills and a clear interest in the function of their choice.

The first table (General) lists activities that are included in all job descriptions due their importance for the on-going effectiveness of the organisation. For example, the UK Data Archive has ISO 27001 certification which is essential for its provision of the secure access service. All staff are expected to understand and apply the security measures that are necessary for the maintenance of this certification. Record-keeping and procedure management are essential both for our reputation as a Trusted Repository and for ISO 27001 certification, so all staff are expected to be familiar with procedures and record-keeping system.

Note that if a new organisation does not plan to manage sensitive data, some of the elements relating to data security may not be necessary or may only be necessary in less rigorous form.

The remaining tables set out the principle duties and objectives for staff by OAIS function. There is deliberate overlap of some tasks between the grades but note that the level of responsibility changes depending on seniority. For example, a G9 may be required to 'manage' an activity whilst a G8 will be expected to 'assist' in the management of that activity.

General (applies to many roles)

Grade	Principal duties or key objectives
Any Grade 9	To provide day to day, operational service management within the xxxx section.
	To undertake line management responsibilities for staff in the xxxx section including but not exclusively: appraisal and performance management; managing and monitoring staff attendance and the achievement of contractual goals, including the analysis of key management information.
	Support senior staff in all aspects of the recruitment process, e.g. preparing job descriptions, chairing and participating in interview panels.
	To be responsible for the currency of section procedures; and for ensuring that

	staff in the section are familiar with basic security awareness; understand the need for accurate records management; and adhere to [insert name of service] procedures.
	Manage and participate in projects; represent the section at management and other meetings; contribute actively to information exchange witihin the section and between other sections and service partners.
	Undertake a minimum of one information exchange activity (e.g. conference or training presentation; blog or other publication) annually.
	To engage with the Service/Department planning activities.
Any Grade 8	Assist section managers in the recruitment process, e.g. chairing and participating in interview panels, as appropriate.
	Manage and participate in projects as appropriate; occasional representation of the section at management and other meetings; contribute to information exchange witihin the section and between other sections and service partners.
	Assist managers in the ensuring that section staff has basic security awareness, understand the need for accurate records management and adhere to [insert name of service] procedures.
	Undertake a minimum of one information exchange activity (e.g. conference or training presentation; blog or other publication) annually.
Any Grade 7	Provide occasional support to section managers in the recruitment process, e.g. participating in interview panels for junior positions.
	Be familiar with basic security needs; understand the importance of accurate record-keeping; and adhere to [insert name of service] procedures.
	Participate in projects and represent the section at meetings, as appropriate; actively contribute to information exchange within the section and between other sections and service partners as appropriate.
	Undertake a minimum of one information exchange activity (e.g. conference or training presentation; blog or other publication) annually.
Any Grade 6 and under	Provide occasional support to section managers in the recruitment process, e.g. participating in interview panels for junior positions.
	Be familiar with basic security needs; understand the importance of accurate record-keeping; and adhere to [insert name of service] procedures.
	Participate in projects and represent the section at meetings, as appropriate; actively contribute to information exchange within the section and between other sections and service partners as appropriate.

Staffing and Management

Grade	**Principal duties or key objectives**

Grade 9 Standards and Security Manager	To provide day to day management for governance and non-technical security activities .
	To be responsible for the currency of procedures relating to the post; and for actively working within the governance team and with managers in all other sections to ensure consistent management and application of procedures; and, in particular, to ensure understanding of the importance of adherence to security procedures and standards.
	To take a lead in the Service/Department planning activities.
	Overseeing the on-going management and development of the Service web site.
	Support and lead as appropriate, internal teams in activities to apply appropriate metadata standards to existing functions, for example, the Business Classification Scheme.
	In conjunction with others be responsible for the collection, management and analysis of management information relating to the Key Performance Indicators of the Service.
	Maintain links with the Support Service teams in partner organisations, in conjunction with the relevant Deputy Director of the Service.
	Support and lead as appropriate, internal teams in activities aimed at achieving ISO15489 compliant records management practices.
Grade 9 Management Information Manager	To have strategic responsibility for the Service's resource discovery tools, supporting and facilitating the implementation of recommendations on how they can be improved, including recommendations relating to descriptive metadata.
	Contribute to internal process reviews, for example of registration and authentication requirements, with a particular focus on the content and use of the information which is collected and could be used to improve service delivery. Support and advise on, the implementation of improvements to services.
	To have strategic responsibility for the archive's impact agenda, working closely with the Service Communication and Impact Manager to ensure the provision of a single impact analysis function for service enhancement and reporting (e.g, metrics, impact, etc.).
	To consider the benefits and use of web log analysis and the development of performance dashboards, implementing these if appropriate.
	To have strategic responsibility for the further development, use and promotion of the Archive's thesauri and other controlled vocabularies.
	To support the transition from* existing to new organisational systems, for

	example, for HR and records management, ensuring compliance with university systems and the continued availability of supplementary functionality.

* This could say 'implementation of organisational'

Pre-Ingest

Grade	Principal duties or key objectives
Grade 9 Collections Development Manager	Responsibility for maintaining and implementing the Collections Development Policy across the Service.
	Attending, servicing, and providing information to the Collections Development Committee.
	Creating and implementing a plan for Collections Development Strategy with centralised negotiation for the whole Service.
	Taking a proactive approach to bring in new data collections/series and data types, with a primary focus on data for policy relevant research, for enhancement for teaching and to promote interdisciplinary research.
	Contributing to the establishment of an advisory presence for Producer Support functions, with a focus on government departments.
	Close working with staff in the Producer Support section to ensure a streamlined selection, acquisitions and producer support service.
	Responsibility for overseeing accession of data collections within Records Management Guidelines and Rights Management frameworks.
	To work closely with the Producer Support, User Support & Training, Ingest and Access Managers to ensure a smooth workflow and integrated seamless user experience.
	To provide day to day, operational service management within the Collections Development section.
Grade 9 Producer Relations and Research Data Manager	To coordinate liaison with ESRC* Research Data Policy and ESRC staff who maintain the policy
	To promote the importance of Research Data Management planning to external organisations
	Oversee the development and implementation of an enhanced Store or alternative submission mechanism for the Archive
	To be responsible for authoring material, organising and delivering research data management activities, for the Archive, working in

	collaboration with research funders (including research councils), data creators and service partners as appropriate.
	To identify areas for development and possibilities for support & training activities and taking these forward into funded projects.
	To coordinate development and delivery of value added support materials for data management for delivery to data creators, working closely with the Manager: Ethics and Consent, and in collaboration with service partners.
	To have editorial and content responsibilities for relevant portions of service website and printed materials in conjunction with service partners
	Collaborate with the Manager: Ethics and Consent, to create and author materials for training events for Research Data Management
	To work closely with the Collections Development, Ingest and Access Managers to ensure a smooth workflow and integrated seamless user experience
	To make an active contribution to relevant groups and committees including, for example, the Collections Development Group, in collaboration with the Collections Development team
Grade 9 Manager, Producer Relations: Research Ethics	To deliver research data management activities for the Service, in collaboration with data creators and service partners, with emphasis on but not exclusively, ethics and consent and use of textual information
	To identify areas for development and possibilities for support & training activities and taking these forward into funded projects.
	To coordinate the development of, author and deliver value added support materials for data creators and users of textual information, including, e.g. materials for training events and web-based learning.
	To have editorial and content responsibilities for relevant portions of service website and for printed materials, in collaboration with service partners
	To work closely with the Collections Development, Ingest and Access Managers to ensure a smooth workflow and integrated seamless user experience
	To make an active contribution to relevant groups and committees including, for example, the Collections Development Group, in collaboration with the Collections Development team

Grade 8 Senior Collections Development and Rights Officer	Contributing to the development, maintenance and implementation of the Collections Development Policy across the UK Data Service in accordance with the National Data Strategy.
	Undertaking a secretariat role for relevant groups and committees, for example, the Collections Development Committee and the Collections Review Group.
	Taking a proactive approach to bring in new data collections/series and data types, with a primary focus on data for policy relevant research, for enhancement for teaching and to promote interdisciplinary research.
	Contributing to the establishment of an advisory presence for Producer Support functions, with a focus on government departments.
	Work in close collaboration with staff in the Producer Support section to ensure a streamlined selection, acquisitions and producer support service.
	Contribution to drafting new agreements and licenses within the Records Management Guidelines and Rights Management frameworks.
	Work in close collaboration with the Producer Support, Ingest and Access Managers to ensure a smooth workflow.
	Be responsible for collaboration between the Collections Development team and RMS, working closely with the Associate Director, RMS to uphold the archive's rights management and licensing framework.
Grade 8 Producer Support and Research Data Management Senior Officer	To work pro-actively with researchers nationally, to: impart good data management practices; encourage their adoption of; and increase their potential for, sharing data. This work will focus on data storage and preservation requirements
	To contribute to the design, development and implementation of the Service's self-archiving system for research data, focussing on metadata requirements and usability
	To support the Preservation Planning Manager in metadata planning and implementation activities for the Service
	To undertake specialist data processing for geo-referenced and environmental data sources within the Ingest team
	To help pursue the Linked Open Data Agenda for the Service, contributing to the Digital Futures project and other demonstrator activities

Ingest

Grade	Principal duties or key objectives
Grade 9 Data Curation Manager	To oversee all aspects of ingest processing and its related metadata creation at the Service and ensure that a smooth and efficient service is maintained.
	To forward plan and formulate strategy for the development of ingest services at the Service to ensure consistent, effective and reflexive services to data creators and users.
	To undertake research and development within the field of ingest processing and associated metadata creation in order to formulate strategy, utilise new tools and oversee the planning and development of effective services.
	To identify areas for development and possibilities for enriched ingest services and take these forward into funded projects.
	To have lead content and editorial responsibility for website areas relating to Ingest services
	To manage the workflow of logging, tracking and resolving internal and external queries about Ingest-related issues
	To work closely with the Collections Development, User Support & Training and Access Managers to ensure a smooth workflow and integrated seamless user experience
Grade 8 Senior Data Curation Officer	Manage the online data browsing service (Nesstar).
	Train Service staff in data and metadata ingest procedures, with particular responsibility for data and metadata preparation and publishing in Nesstar.
	Line management of Data Curation Officer, and additional temporary staff as appropriate.
	Liaise with managers of other Nesstar-based services and libraries nationally and internationally to ensure optimal interoperability.
	Prepare quantitative and qualitative data, documentation and metadata, at varying levels of data sensitivity and security, for secondary use, including converting data and accompanying documentation among different software and formats, checking, validating, enhancing and adding value for both new and existing datasets. Prepare/create, quality-check and publish datasets for value-added online delivery services (eg Nesstar)
	Prepare structured dataset metadata, including catalogue records and keyword indexes, according to established archival standards and tools
	Liaise with data creators, staff at other centres and data users, as required, to correct errors and to resolve queries.

	Workflow management responsibilities for issues involving legacy data and documentation
Grade 7 Data Curation Officer	To work within the Data Services team to prepare quantitative and qualitative data, documentation and metadata, at varying levels of data sensitivity and security, for secondary use
	To convert data and accompanying documentation among different software and formats, checking, validating, enhancing and adding value for both new and existing datasets
	To prepare structured dataset metadata, including catalogue records and keyword indexes, according to established archival standards and tools
	To liaise with data creators, staff at other centres and data users, as required, to correct errors and to resolve queries.
	To liaise with staff from other sections of the Service to ensure that materials are made ready for preservation and secondary use according to agreed Service Level Definitions
	To prepare data and metadata for addition to online data browsing tools, processing studies to A* standard and liaising with the Senior Data Curation Officer(s) responsible for Nesstar, Question Bank, and other online systems.
	To prepare data and metadata for inclusion in the secure services, and to support the creation of secure user accounts and the management of data within them.
	To undertake other arising data-related tasks within the Service team as required.

Technical Services

Grade	**Principal duties or key objectives**
Grade 9 Data Security Manager	Responsibility for workstations and laptops including: specification, purchase, build and set up, implementation, management and support.
	Responsibility for workstation and laptop budget.
	Responsibility for all hardware and software logistics for publicity, training, workshops and other public events, including provision of training and use of Access Grid Node.
	Responsibility for systems administration of Nesstar servers and contribution to the maintenance of the Nesstar Service.
	Responsibility for research, purchase, implementation, deployment and maintenance of the hardware and software for work in the

	ISO27001 environment (for the provision of sensitive data via secure modes of access).
	Provide support and assistance in the management of all other computing systems within the archive including joint administration of physical server build, set up, and configuration and virtual server set up, and configuration.
	Train all staff in the ISO27001 environment in all technical aspects of the workings in that environment.
	Assist in the management of the Access Manager (Secure) work.
	Implementation and deployment of both hardware and software for the ISO27001 environment
	Implement and assist in the development of the Security Plan for the provision of sensitive data.
	Assess new software requirements and liaise with University Systems services and external suppliers.
	Liaise with designated consultants (NORC and The Open Data Foundation) regarding the setup of the secure service.
	Liaise with University systems team regarding external companies for support services.
	Joint responsibility with the Systems Manager to formulate and manage a budget that meets the whole UKDA's equipment requirements, ensuring that the budget is spent within the necessary timeframes and that best value-for-money is achieved.
	Joint responsibility with the Systems and Preservation Manager to investigate and purchase hardware, software, network equipment, cabling etc., ensuring that the budget is spent within the necessary timeframes and that best value-for-money is achieved.
	Proactively monitor both system security and physical security, and advise on improvements.
	In conjunction with the Systems Manager maintain systematic backup routines for servers.
	Provide advice, technical information and support to Head of Digital Preservation and Systems on the implementation of policies and strategies relating to preservation, systems and security.
	Liaise with government departments and other organisations providing encrypted data to the Service.
Grade 9	Systems

Systems and Preservation Manager	Manage the running of servers and desktop PC's, including server configuration and maintenance support.
	Manage network connectivity.
	Advise, evaluate and purchase hardware and software.
	Evaluate and purchase of network equipment and cabling.
	Maintain hardware and software and advise on IT equipment budgetary plans for all sections of the Archive.
	Manage the set up of computing equipment for presentations.
	Keep up to date with Computing Architecture.
	Manage the backup of Servers and desktop PC's.
	Provide backup systems support for Nesstar in the absence of the Systems and Preservation Administrator.
	Preservation
	Manage the running of the main preservation system within agreed parameters.
	Formulate and update preservation strategy and procedures.
	Ensure preservation procedures are being followed.
	Keep up to date with digital preservation technologies.
	Overseeing the tape refresh strategy and retention.
	Oversee media migration and format migration as appropriate.
	Overall responsibility for authorising user access to different parts of the system.
	Oversee backup procedures for preservation.
	General
	Lead R&D projects for the section.
	Aid with compilation of other documents (e.g. Annual report).
	Give presentations to visitors.
	Train staff in use of systems.
	Oversee production of training material for the appropriate use of all systems.
	Supervise the management of file space within the Archive.
	Formulate, write and maintain BS7799 document and procedures.

	Develop the business side of preservation services.
Grade 9 Preservation Planning Manager	Lead the planning and implementation of the Archive's phased strategy for an enhanced data service infrastructure
	Support and lead as appropriate, internal teams in activities to apply appropriate metadata standards to existing functions, for example, the OAIS and BCS, to facilitate the development of machine actionable systems for revised operating procedures
	Support and lead as appropriate, internal teams in activities aimed at achieving standards-based records management practices
	Liaise closely with consultants from the US forum, the Open Data Foundation, and write key reports on and present the work in a range of key external forums, including abroad and as the Archive's representative in international projects.
	Maintain Data Seal of Approval (DSA) status and align with or benchmark against other relevant standards to maintain the Archive's Trusted Digital Repository status.
	Manage the embedding of qualitative data conversion methods into practice to enable ingest of CAQDAS data formats
	Representation on internationally-based DDI working group for qualitative data – continuation of liaison with US-based ODaF consultants over QuDex schema and promotion of the schema to other data archives and CAQDAS vendors across the world .
Grade 9 Senior Data and Services Developer	Lead the design, development, quality assurance and maintenance of Web Services.
	Lead the design, development, quality assurance and maintenance of components to generate, modify and store data in relational databases.
	Lead the design, development, quality assurance and maintenance of components to generate, modify and store data in XML format.
	Lead the migration of existing databases from client-server to Service Oriented Architecture usage.
	Work closely with stakeholders to ensure their requirements for software services are gathered, assessed, prioritised and incorporated in agreed release schedules.
	Monitor progress and provide the Technical Services Director with updates and other relevant information as required.
	Assist the Technical Services Director in the formulation of the Archive's systems development strategy.

Grade 9 Senior Systems and Applications Developer	Lead the design, development, maintenance and quality assurance of the Archive's public web sites.
	Lead the design, development maintenance and quality assurance of the Archive's internal applications and web sites.
	Lead the conversion of existing Microsoft ASP applications to ASP.NET/C#.
	Lead the design, development, maintenance and quality assurance of utility scripts.
	Work closely with stakeholders to ensure their requirements for application development and maintenance are gathered, assessed, prioritised and incorporated in agreed release schedules.
	Monitor progress, ensure quality and provide the Technical Services Director with updates and other relevant information as required.
	Assist the Technical Services Director in the formulation of the Archive's systems development strategy.
Grade 8 Data and Services Developer	Design, development, quality assurance and maintenance of Web Services.
	Design, development, quality assurance and maintenance of components to generate, modify and store data in relational databases.
	Design, development, quality assurance and maintenance of components to generate, modify and store data in XML format.
	Migration of existing databases from client-server to Service Oriented Architecture usage.
	Development, maintenance and quality assurance of utility scripts.
Grade 8 Systems and Applications Developer	Design, development, quality assurance and maintenance of applications and web sites and their integration with the Archive's Service Oriented Architecture.
	Maintenance of legacy applications and web sites.
	Migration of legacy applications and web sites to the Archive's Service Oriented Architecture.
	Development, maintenance and quality assurance of utility scripts.
Grade 7 Developmental Data and Services	Assist in the design, development, quality assurance and maintenance of Web Services.
	Assist in the design, development, quality assurance and

Developer	maintenance of components to generate, modify and store data in relational databases.
	Assist in the design, development, quality assurance and maintenance of components to generate, modify and store data in XML format.
	Assist in the migration of existing databases from client-server to Service Oriented Architecture usage.
	Assist in the development, maintenance and quality assurance of utility scripts.
Grade 7 Developmental Systems and Applications Developer	Assist in the design, development, quality assurance and maintenance of applications and web sites and their integration with the Archive's Service Oriented Architecture.
	Assist in the maintenance of legacy applications and web sites.
	Assist in the migration of legacy applications and web sites to the Archive's Service Oriented Architecture.
	Assist in the development, maintenance and quality assurance of utility scripts.

Access

Grade	**Principal duties or key objectives**
Grade 9 Data Access Manager	Ensuring that sometimes complicated dataset access conditions specified by data depositors are enforced and administered properly. This is a key legal responsibility upon which our supply of data from depositors (and thus the service's existence) depends.
	To oversee the development and operation of Access services, both user experience and back office workflow and administration.
	To identify areas for development and possibilities for enriched access services and take these forward into funded projects.
	To have lead content and editorial responsibility for website areas relating to Access services.
	To manage the workflow of logging, tracking and resolving user queries about Access-related issues.
	To work closely with the Collections Development, Access(Secure), Data Curation and User Support & Training Managers to ensure a smooth workflow and integrated seamless user experience.
Grade 8 Senior Access and	Providing frontline service for user enquiries, using documentation and data files to answer complicated and detailed queries and where

Support Officer	appropriate liaising with data producers to resolve problems.
	Providing guidance and support to junior staff answering basic service and data queries.
	Use of the online Data Catalogues including Nesstar and a wide variety of other information tools to assist users to locate, access and use datasets of interest, both within the Service's holdings and internationally. Help users to recognise when they in fact require information, rather than actual data files, and steer them towards those sources of information.
	Advising users as to dataset content and usability, and helping users identify potential problems and solutions regarding the use of data for their particular research interest. This will involve delving into not only the documentation, but the data files themselves and learning about their structure and content.
	Ensuring that sometimes complicated dataset access conditions specified by data depositors are enforced and administered properly. This is a key legal responsibility upon which our supply of data from depositors (and thus our existence) depends.
	Providing presentations on the Service in a variety of venues, including user workshops, organisational representatives' conferences, university departmental seminars, international conferences, etc.
	Providing a service to data access secretariats, e.g. Understanding Society data access committee, ONS Microdata Release Panel, providing usage and application information and support.
	Strategic contributions to service development, policies and procedures, supporting service managers and directors.
	Managing secure data user accounts and data access.
	Contribute to report writing, website content and other written service communication.
	Running statistical disclosure checks on user analytical outputs, and liaising with the Security Manager and data owners over complicated cases.
	Working with other Service staff to develop value-added products involving Service datasets. This may include products such as web-based help services, specific to certain data series; products to assist in the use of data in teaching; etc.
	Undertaking other arising dataset-related tasks within the Data Access team as required. For example, tasks relating to the processing and delivery of data orders to end users.

	Manage and participate in projects as appropriate; occasional representation of the section at management and other meetings; contribute to information exchange witihin the section and between other sections and service partners.
	Assist managers in the ensuring that section staff has basic security awareness, understand the need for accurate records management and adhere to University and Service procedures.
	Undertake a minimum of one information exchange activity (e.g. conference or training presentation; blog or other publication) annually.
Grade 7 Thesaurus Development and Bibliographic Services Officer	To have day to day responsibility for a project to merge the ELSST and HASSET thesauri into a single management system
	To work closely with the project owner and the thesaurus co-ordination officer to ensure compatibility of the new thesaurus system with the requirements of the Service, national and international thesaurus users, focussing on HASSET;
	To advise on information-related topics with cross-section relevance, including new access codes, series titles, new terms for controlled vocabularies;
	Provide guidance and training to ensure the currency of catalogue records, including controlled authority lists (names, spatial and geographies);
	Administer and participate in internal meetings as appropriate;
	Contribute to the creation and maintenance of procedures for metadata creation and cataloguing;
	Contribute to the further development of the technical framework for the thesauri including, e.g., participating in related projects (e.g. for metadata and resource discovery for question banks) and assessment of resource discovery tools;
	Create content for, and participate in, promotional activities;
	Contribute to the addition and revision of thesaurus terms;
	To make any retrospective changes necessary to align and update the thesaurus to recognised standards;
	Provide guidance and training for thesaurus administrators and users;
	Maintain a ‘technology watch’ on new thesauri and related technical developments;

Grade 7 Thesaurus Coordination Officer	Undertake a review of IP and, working closely with RMS, ensure accurate IP accreditation and appropriate licences and contracts for the multilingual thesaurus
	To work closely with the Thesaurus and Bibliographic Services Officer to ensure compatibility of the thesaurus system with the requirements of the Service, national and international thesaurus users, focussing on ELSST
	Provide guidance and training for thesaurus administrators and users
	Establish and chair the various management and interest groups for the multi-lingual thesaurus and represent stakeholders at selected events
	Establish and manage the schedule for release of the multi-lingual thesaurus
	Contribute to the creation and maintenance of procedures relating to the thesaurus, metadata creation and related activities
	Further the development of the technical framework for ELSST including, e.g., initiating and participating in projects and assessment and associated resource discovery tools
	Establish new delivery models for the thesaurus, including authentication and authorisation
	Create content for and participate in promotional activities (e.g. web-based information, conference and workshop presentations)
	Contribute to decisions about the content and structure of thesaurus terms
	Contribute to the creation and maintenance of procedures for metadata creation and cataloguing
	Contribute to content and technical thesaurus development, including, e.g. participation in internal projects, testing the new system
Grade 7 Data Access Officer	Answering and, where appropriate, referring user queries and supporting users through the registration, finding, online browsing, ordering, and download procedures.
	Answering the help desk telephone, entering queries into the query-tracking system.
	Processing data access requests, including checking applications and issuing logins to users.
	Use of the online Data Catalogue and the Nesstar Catalogue and a

	wide variety of other information tools to assist users to locate, access and use datasets of interest, both within the service's holdings and internationally. Help users to recognise when they in fact require information, rather than actual data files, and steer them towards those sources of information.
	Advising users as to dataset content and usability, and helping users identify potential problems and solutions regarding the use of data for their particular research interest. This will involve delving into not only the documentation, but the data files themselves and learning about their structure and content.
	Ensuring that sometimes complicated dataset access conditions specified by data depositors are enforced and administered properly. This is a key legal responsibility upon which our supply of data from depositors (and thus our existence) depends.
	Processing of special licence and approved researcher applications and delivery of special licence data.
	Input information into the order-tracking database, validate orders and keep track of/and update status of orders pending.
	Preparing data to be made available for web download. This may involve converting data to different formats or software versions.
	Where appropriate, create/amend internal and user metadata (read/note files, label files, etc) in accordance with quality control procedure.
	Contribute to external communications, including data confrontation workshops and writing appropriate web content.
	Liaise with other parts of the Service (internal and external) over data access and user support issues.
	Contribute to strategic developments for the section (e.g. development and implementation of new products and services, integration of new VAS).
Grade 5 Access and Outreach Assistant	Staffing the email and telephone helpdesks on a rota basis, answering resolving queries where appropriate and referring others to relevant members of staff.
	Logging queries in a database.
	Administration of customer accounts.
	Liaising with other units within the Service regarding registration matters.
	Collating figures for quarterly, annual and ad hoc reports.

	Providing administrative support for presentations, demonstrations, workshops and other events.
	Contributing to the presentation of the work of the Service at conferences, workshops and other events.
	Contributing to the design, production and maintenance of web and promotional materials.
	Assisting with data delivery.
	Telephone cover for the General Office.

User Support

Grade	Principal Duties or Key Objectives
Grade 9 Support Manager	To be responsible for overseeing, developing, managing and delivering both proactive and reactive user support and training activities for the service, in collaboration with data creators and service partners.
	To identify areas for development and possibilities for enriched support & training and taking these forward into funded projects.
	To have editorial and content responsibilities for relevant portions of service website in conjunction with service partners
	To manage the workflow of logging, tracking and resolving user queries about service datasets – advising on dataset structure, content, format, methodology, and accessibility
	To coordinate development and delivery of value added data, documentation and support, and develop enhanced online resources for data users in collaboration with data creators and service partners.
	To work closely with the Collections Development, Data Curation and Access Managers to ensure a smooth workflow and integrated seamless user experience
Grade 8 Senior Access and Support Officer	Providing frontline service for user enquiries, using documentation and data files to answer complicated and detailed queries and where appropriate liaising with data producers to resolve problems.
	Providing guidance and support to junior staff answering basic service and data queries.
	Use of the online Data Catalogues including Nesstar and a wide variety of other information tools to assist users to locate, access and use datasets of interest, both within the Service's holdings and internationally. Help users to recognise when they in fact require information, rather than actual data files, and steer them towards those sources of information.

	Advising users as to dataset content and usability, and helping users identify potential problems and solutions regarding the use of data for their particular research interest. This will involve delving into not only the documentation, but the data files themselves and learning about their structure and content.
	Ensuring that sometimes complicated dataset access conditions specified by data depositors are enforced and administered properly. This is a key legal responsibility upon which our supply of data from depositors (and thus our existence) depends.
	Providing presentations on the Service in a variety of venues, including user workshops, organisational representatives' conferences, university departmental seminars, international conferences, etc.
	Providing a service to data access secretariats, e.g. Understanding Society data access committee, ONS Microdata Release Panel, providing usage and application information and support.
	Strategic contributions to service development, policies and procedures, supporting service managers and directors.
	Managing secure data user accounts and data access.
	Contribute to report writing, website content and other written service communication.
	Running statistical disclosure checks on user analytical outputs, and liaising with the Security Manager and data owners over complicated cases.
	Working with other Service staff to develop value-added products involving Service datasets. This may include products such as web-based help services, specific to certain data series; products to assist in the use of data in teaching; etc.
	Undertaking other arising dataset-related tasks within the Data Access team as required. For example, tasks relating to the processing and delivery of data orders to end users.
Grade 7 User Support & Training Officer	Answering non-routine user queries and supporting users on finding and using data.
	Entering queries into the query-tracking system.
	Advising users as to dataset content and usability, and helping users identify potential problems and solutions regarding the use of data for their particular research interest. This will involve delving into not only the documentation, but the data files themselves and learning about their structure and content.
	Where appropriate, create/amend internal and user documentation and metadata in accordance with quality control procedure.
	Contribute to the development and delivery of value added data,

	documentation and support, and development of enhanced online resources for data users in collaboration with data creators and service partners.
	Contribute to a variety of external communications, including user workshops and training and writing appropriate web content.
	Liaise with other parts of the Service (internal and external) over user support issues.
	Participate in projects and represent the section at meetings, as appropriate; actively contribute to information exchange within the section and between other sections and service partners as appropriate.
	Contribute to strategic developments for the section (e.g. development and implementation of new products and services, integration of new Valued Added Services).

Communications and Publicity

Grade	**Principal duties or key objectives**
Grade 9 Communications and Impact Manager	Develop and implement the Service's Communications and Impact Strategy
	Oversee, develop, manage and deliver communications and impact activities for the Service guided by the Communications & Impact Strategy, in collaboration with stakeholders and service partners. This includes but is not limited to:
	- Developing and managing content strategy, in collaboration with service partners
	- Editorial and content responsibilities for communications including writing promotional copy for print and electronic content: e.g. website content, newsletters, brochures, publications, subscriber emails, blogs, social media and other promotional outlets
	- Managing and coordinating the implementation of branding and design for the Service, including managing contractors for design work; and overseeing guardianship of branding guidelines and web user experience for the Service
	- Taking a lead in producing press releases, brokering contacts with journalists and media outlets
	- Monitoring, analysing and reporting key impact measures for the Service
	- Overseeing the monitoring, analysis and reporting procedures for web statistics

	- Initiating, managing and reporting on user and stakeholder feedback through engagement and user surveys
	- Initiating and overseeing user testing activities for the Service website and related functionalities
	- Developing and managing communication and contact lists across the Service delivery partners
	- Identifying opportunities to improve communications and impact and take these forward into funded projects where appropriate
	- Coordinate between the communications teams at the ESRC, Partner organisations and the University of Essex
	- Work closely with the Collections Development, Ingest and Access Managers to ensure a smooth workflow and integrated seamless user experience
Grade 8 Senior Communications and Impact Officer	Work with team leaders to plan and deliver communications and impact activities for the Service guided by the Communications and Impact Strategy.
	Maintain standards and procedures to ensure quality of web content, functionality and accessibility; provide training and support to content editors as needed.
	Operationally manage guardianship of editorial standards, branding guidelines and the web user experience for the Service.
	Contribute to content strategy and copy, and operationally manage the editorial processes for all print and electronic content; this includes website content, newsletters, brochures, publications, subscriber emails, blogs, social media and other promotional outlets.
	Ensure quality control for the Service website, including editing and proofing content, checking functionality and ensuring web standards compliance, in collaboration with the Technical Services section.
	Maintain and administer of the Service discussion/ email news lists and news feeds.
	Monitor, analyse and report website statistics for the Service.
	Coordinate and report key performance indicators (KPIs) for Communications & Impact activities.
	Plan and facilitate stakeholder feedback through engagement activities and surveys.
	Plan and facilitate user testing activities for the Service website and

	related functionalities.
	Assist in coordinating the programme of the Service's training events and webinars in liaison with User Support & Training section.