

Data Management Plan

Generic template

Admin Details

<i>Project Name</i>	
<i>Research funder</i>	
<i>Grant number</i>	
<i>Project start and end</i>	
<i>Principal Investigator / Researcher</i>	
<i>Institution</i>	Sheffield Hallam University

Data Collection

a) *What data will you collect or create?*

- Are there any existing data that you can re-use?
- What type, volume and format of data will you collect or create?
- Do your chosen formats and software enable sharing and long-term sustainability of data, such as non-proprietary software and software based on open standards?

b) *How will the data be collected or created?*

- Are you using standardized and consistent procedures to collect, process, transcribe, check, validate and verify data, such as standard protocols, templates or input forms? What quality assurance processes will you adopt?
- How will you organise data, records, and files (file naming, folder structures)?
- How will you handle versioning?

Documentation and Metadata

a) *What documentation and metadata will accompany the data?*

- What documentation and metadata explain what your data mean, so that it can be read and interpreted in the future? Is this sufficient for others to understand your data and use them properly?
- How will you capture / create this documentation and metadata?
- Which metadata standards will you use?

Ethics and Legal Compliance

a) *How will you manage any ethical issues?*

- Do your data contain confidential or sensitive information? If so, are you gaining written consent from respondents to preserve and share data beyond your research?
- How will you protect the identity of participants if required? Do you need to anonymise data, for example by removing identifying information or personal data, during research or in preparation for sharing?
- How will sensitive data be handled to ensure it is stored and transferred securely?

b) *How will you manage copyright and Intellectual Property Rights (IPR) issues?*

- Have you established who owns the copyright in your data? Might there be joint copyright?

- If you are purchasing or reusing someone else's data sources, are there any restrictions on their reuse? Have you considered how these data might be shareable, for example by negotiating a new license with the original supplier?
- Have you considered which kind of license is appropriate for sharing your data and what, if any, restrictions there might be on reuse?
- Will data sharing be postponed / restricted, for example to publish or to seek patents?

Storage and Backup

a) *How will the data be stored and backed up during the research?*

- Do you have sufficient storage?
- How will your files be backed up, and how regularly? Are your backups stored safely?
- How will the data be recovered in case of an incident?
- Who will be responsible for back-up and recovery?

b) *How will you manage access and security?*

- What are the risks to data security and how will these be managed?
- Do you need to securely store personal or sensitive data? If so, are they properly protected?
- Do you need to transfer personal or sensitive data? If so, how will you ensure that they are transferred securely?
- If data are collected with mobile devices, how will you transfer the data into your main secured storage?
- Who has access to which data during and after research? How will you ensure that any collaborators can access your data securely?

Selection and Preservation

a) *Which data are of long-term value and should be preserved and/or shared?*

- What data must be retained or destroyed for contractual, legal or regulatory purposes?
- How will you select which other data to preserve and/or share and which data to destroy?
- What are the foreseeable research uses for the data?
- How long will you preserve your data for?

b) *What is the long-term preservation plan for the dataset?*

- How and where will you preserve your research data for the longer term? Does your repository of choice charge any costs?
- How will you prepare and document the data for preservation and sharing? Have you costed in time and effort to do this?

Data Sharing

a) *How will you share the data?*

- When will you make the data available?
- Will you share via a repository, handle requests directly, or use another mechanism?
- With whom will you share the data, and under what conditions? Is there a need for access restrictions?
- How will potential users find out about your data?

b) *Are any restrictions on data sharing required?*

- Will there be any difficulties in sharing data, and how will you overcome or minimise these?
- Would a data sharing agreement (or equivalent) be required?
- If applicable, for how long do you need exclusive use of the data and why?

Responsibilities and Resources

a) *Who will be responsible for data management?*

- Who will be responsible for implementing the DMP and ensuring that it is reviewed and revised?
- Who will be responsible for which activities?
- How will responsibilities be split across partner sites in collaborative research projects?
- Will data ownership and responsibilities for RDM be part of any consortium agreement or contract agreed between partners?

b) *What resources will you require to deliver your plan?*

- Do you require any training, people, time, software, hardware, expertise? Are there any other costs, such as charges applied by data repositories?



Guidance notes

Using existing data

Research funders are eager that existing datasets should be used wherever possible in order to avoid duplication of effort and advance academic and scientific progress. You can search for existing datasets via DataCite Metadata Search (<http://search.datacite.org>). You can find relevant data archives for your field of study via the Registry of Research Data Repositories (<http://www.re3data.org>).

Types of data

When listing the types of data that your project will produce, you could think in terms of quantitative, qualitative, numeric, textual, images, audio, video, survey data, experimental measurements, software source code, computational models, computational model output, etc.

Volume of data

Please give an indication on the volume of data that your project may produce. Try to give a numerical estimate in MB / GB / TB if possible.

Information about the volume of your data will enable IS&T to model storage demand, make sure enough networked storage will be available for your live data, and continue to provide a high-quality storage service.

File formats

It is useful to consider which file formats you will use for your data, since the choice of file format has repercussions for the long-term access to your data: file formats may become obsolescent in the future. The safest option to guarantee long-term preservation of your data is to use open formats (such as comma-separated values or CSV) and not proprietary formats, although some proprietary formats (such as SPSS, PDF, Excel, Word and RTF) are widely used and likely to be accessible in the long term but not indefinitely.

Formats that enable long-term preservation and sharing of data are listed here: <http://data-archive.ac.uk/create-manage/format/formats-table>.

You may use other file formats than these for creating and analysing your data, e.g. depending on discipline-specific standards or specific hardware that you use. In that case, it is advisable to consider converting your files to long-lasting formats at the end of your research project, when you are preparing the data for long-term preservation.

Research data archives and repositories may have requirements regarding the file formats they will accept. It is recommended to check these requirements and ensure that your project's file formats will be accepted by your repository of choice, or can easily be converted into these accepted formats. SHU's institutional research data archive, SHURDA, will accept all optimal data formats for long-term preservation as listed by the UK Data Archive (<http://data-archive.ac.uk/create-manage/format/formats-table>) and it may accept other file formats in case that you are using software or hardware that creates proprietary file formats, no alternative exists and/or the proprietary file format is commonly used in your discipline.

More information

More guidance on file formats is available from the SHU RDM website:

<http://research.shu.ac.uk/rdm/preserving.html#formats>.

Quality assurance

Data quality is a measure of how accurate and reliable the data is, and whether it is valid for the purpose intended. Consider calibration of instruments, repeat samples or measurements, representation with controlled vocabularies / choice lists, rules for transcription of audio and video, and both manual (e.g. peer review, double entry, checking data completeness, verifying random samples, proof-reading transcriptions) and automatic (e.g. data entry validation rules or input masks) checks.

Documenting quality control procedures and sharing them within the project team will help ensure that everyone understand what's expected of them. This will also help when offering data to an archive for long-term preservation, as it gives a simple way of showing compliance with their quality criteria.

Organising data

Please indicate how you will name your files and folders. You may already have some rules that you follow; in that case just document them here. A simple example scheme might look like this:

- /Analysis/YYYY-MM-DD-<Technique>.xls
- /Data/Text/InterviewTranscripts/Interview-<Participant number>-<Interviewer name>-YYYY-MM-DD.docx
- /Data/Sound/InterviewRecordings/Interview-<Participant number>-<Interviewer name>-YYYY-MM-DD.flac

Having a clear and simple organising scheme will help you and others find the right files later on, when some time has passed since saving the original files and you come to analyse, archive or share the data. Excellent guidance can be found here:

- <http://www.jiscdigitalmedia.ac.uk/guide/choosing-a-file-name>
- <http://www.data-archive.ac.uk/create-manage/format/organising-data>, where you can find a useful example of a file naming system and folder structure

Versioning data

It is very easy to lose important information by accidentally saving over an existing file. Considering how new versions of a file will be handled will help to prevent this, as well as provide a valuable record of how the work and the thinking around it developed.

There are many options, such as:

- versioning is unnecessary (i.e. you can overwrite original files)
- date/version number is part of the filename / name of the folder
- "track changes" feature in software
- dedicated version control software

If you only need the latest version of each file, then they can simply be overwritten. A more powerful technique is to include a version number, date and / or author's initials in the filename when saving. This can be combined with "track changes" features available in many software packages when collaborating. For some purposes dedicated version control software (such as Git) can be useful.

More information

More guidance on organising your files is available from the SHU RDM website:

<http://research.shu.ac.uk/rdm/organising.html>

Documentation and metadata

Without good documentation and metadata, others (and yourself) will not be able to find, understand and use your research data. It will save time later if you consider documenting your data early on in your project.

Study-level documentation includes all contextual information that a future user may need to interpret your data. Adding documentation about your study could be as simple as recording this context in a readme text file, placed in the same location as the data files it describes. In some cases you will already have recorded sufficient contextual information in your research outputs such as papers and final reports to funders, to which you can briefly refer in lieu of adding a separate text file. If there are established practices for recording this type of information in your research area (such as the use of codebooks or lab notebooks) you can include these.

Data-level documentation describes the data that is contained within one file. This documentation is usually integrated into the file. Think of names, labels and descriptions for variables; explanations of classification schemes; and how derived data created after initial collection has been created.

Some possibilities for adding study- and data-level documentation:

- with a readme file, a codebook file (used in the social sciences), or similar files stored alongside your data
- with specialist software, such as electronic laboratory notebooks
- by embedding information in the data files themselves
- by using paper documents (such as laboratory notebooks)
- these paper documents may be digitised and the resulting digital files stored alongside the data, or they may be submitted to the [SHU Research Data Archive \(SHURDA\)](#) for safekeeping

Metadata are a subset of documentation that is highly structured and standardised. There are many internationally recognised standards that are often discipline specific. The Digital Curation Centre (DCC) keeps track of disciplinary metadata standards: <http://www.dcc.ac.uk/resources/metadata-standards>. The UK Data Archive provides good resources for documenting social sciences and historical data:

- <http://www.data-archive.ac.uk/create-manage/document/metadata>
- <http://www.data-archive.ac.uk/create-manage/document/resources>

More information

More information about documenting your data (including metadata) can be found on the SHU RDM website:

<http://research.shu.ac.uk/rdm/documenting.html>.

Ethical issues

Consent for sharing and re-use

It is essential that you seek consent from human participants that allows the data to be shared and re-used at the end of the project via participant consent forms. There is usually no ethical or legal reason to destroy data at the end of a project, except in the case of personal and sensitive data that is not anonymised, and there is therefore usually no need to promise destruction of anonymised data unless your research funder or sponsor requires you to do so. It may also be that your participants are less reluctant over data sharing than you might think. Explain to your participants the benefits of sharing their data with the research community, highlighting

possible restrictions to re-use via licences (which may include not breaching confidentiality, no further sharing of data with other people, and no re-use for commercial purposes). Make it clear that it is entirely their decision, whereby they can decide whether their data can be shared, independent of them participating in the research.

Ethical consent should follow University policies and procedures:

- Research Ethics Policy: <http://www.shu.ac.uk/research/ethics/>
- Ethics Approval Procedures: <http://www.shu.ac.uk/research/ethics/approval.html>
- NHS and Social Care Policies and Procedures: <http://www.shu.ac.uk/research/ethics/care-policies.html>

Anonymisation

Where possible, personal and sensitive personal data should be modified as early as possible in the processing of data so as to safeguard data against accidental or mischievous disclosure. For some research projects there is no need to associate data with the data subjects and the data can be collected anonymously. In other cases, it may be possible to anonymise the data at a later stage of the project.

For more information on anonymisation see:

- Guidance Note on Data Protection and Research from SHU's Secretariat, especially under point 6: https://staff.shu.ac.uk/university_secretariat/dp_research.asp
- Information Commissioner's Office (2012). *Anonymisation Code of Practice*. Available from https://ico.org.uk/for_organisations/data_protection/topic_guides/anonymisation
- L. Corti, V. Van den Eynden, L. Bisshop, M. Woollard (2014). *Managing and Sharing Research Data: A Guide to Good Practice*. London: Sage, pp. 118-124. Available from both Adsetts and Collegiate Libraries: <http://catalogue.shu.ac.uk/record=b1783228~S11a>

More information

More information on legal and ethical aspects can be found on the SHU RDM website:

<http://research.shu.ac.uk/rdm/legal-and-ethical-aspects.html>

Copyright and Intellectual Property Rights issues

The copyright of your data, or parts of your data, may be owned by various parties: Sheffield Hallam University, academic collaborators, commercial collaborators, data providers (if you are re-using existing datasets), research funders and sponsors, and other third parties.

Establishing ownership will be useful to refer to later in your project if questions arise about what can be done with a particular piece of data and by whom. This is particularly important when archiving the data, and sharing it.

Staff

For single-institution projects ownership initially lies with the University but may ultimately lie with your funder or sponsor. In multi-partner projects, you should outline which partner owns what intellectual property and what rights the other partners have to use it, which may depend on your funder's or sponsor's terms. This should have been set out in your collaboration agreement. If you are using secondary data (i.e. data produced by somebody else) then please give an idea of the licensing restrictions that apply. Please refer to the University's Intellectual Property Policy: https://staff.shu.ac.uk/enterprise/commercialisation/IP_Policy.asp.

Students

For research students, the copyright in the thesis submitted for examination remains with the candidate, but all other Intellectual Property rights lie with the University and/or the funder of the research project - including those over the research data produced for the thesis. See:

- the Regulations for the Awards of the University's degrees of Master of Philosophy and Doctor of Philosophy (pdf):
https://students.shu.ac.uk/regulations/research_degrees/PhD%20and%20MPhil%20Regulations.pdf
- the Student Intellectual Property Regulations:
https://students.shu.ac.uk/regulations/intellectual_property/IPRegulationsForStudents2015.pdf
- the Student Terms and conditions: https://students.shu.ac.uk/regulations/terms_and_conditions.html

Commercially sensitive data

It may be that your data is commercially sensitive, for example when you are seeking patent or a third party has a legitimate interest. In this case, data sharing may be restricted — you may consider making your data available to others subject to a suitable legally enforceable non-disclosure agreement.

It is advisable to make sure your published findings can be validated by others, especially when you are working with public funding. The EPSRC, for example, states that 'Research organisations and researchers have a responsibility to ensure that publicly funded research involving third parties is planned and executed in such a way that published findings can be scrutinised and if necessary validated by others. [...] Third parties who collaborate in publicly funded research should be made aware of the importance of ensuring that published findings can be validated by others'.¹

Licensing

Potential users of your data cannot own it; they can only use it under license, according to the terms in that license. You will need to know what license you wish to use when you publish your data, and should be prepared to discuss this when responding to private requests. Setting this out in the Data Management Plan will save time and confusion later, especially if more than one of the original researchers might want to pass on the data.

There are many possible licenses that you can apply when sharing your data. You can either indicate the license when you publish your data, or negotiate an ad hoc agreement in response to particular requests. You can also use a dual licensing strategy, permitting some rights automatically to all users and agreeing additional rights for specific users (such as collaborators or commercial companies) on request.

When choosing a license, you must take into account

- what permissions were established in participant consent forms
- who owns the Intellectual Property Rights over the data
- what funding contracts specify
- Data Protection

The Information Commissioner's Office provides a Data Sharing Code of Practice.

There are many license models available that may be applied to your research outputs. Some of your options are

- placing your data in the public domain, e.g. with a
 - CC0 license: <http://creativecommons.org/publicdomain/>

¹ <http://www.epsrc.ac.uk/files/aboutus/standards/clarificationsofexpectationsresearchdatamanagement/>.

- PDDL license: <http://opendatacommons.org/licenses/pddl/>
- using a Creative Commons license, e.g. with attribution required, share-alike required, and/or for non-commercial use only: <http://creativecommons.org/licenses/>
- using an Open Data Commons license (<http://opendatacommons.org/licenses/>) that is specifically designed for data and databases, either with attribution (ODC-By) or with attribution and share-alike required (ODC-ODbl)
- using an Open Government Licence (OGL) (<http://www.nationalarchives.gov.uk/doc/open-government-licence/version/2/>) or Non-Commercial Government Licence (<http://www.nationalarchives.gov.uk/doc/non-commercial-government-licence/non-commercial-government-licence.htm>) which are designed for UK public sector information
- using a license specifically designed for computer code, such as Apache License (<http://www.apache.org/licenses/>), GNU General Public License (<http://www.gnu.org/licenses/>) and MIT License (<http://opensource.org/licenses/MIT>). The GNU General Public License v3 (GPL3) which requires that copies and modified versions of your code carry the same license conditions as the original, allowing you to reuse any improved code in your own projects
- terms negotiated individually with requestors on an *ad hoc* basis

When depositing in the SHU Research Data Archive (SHURDA), the default license is a Creative Commons Attribution license (CC BY). This license allows others to use your datasets as long as they acknowledge your work. You can also choose one of the other Creative Commons licenses or the GNU GPL3 license if you are depositing computer code.

If you deposit your data in SHURDA, users will need to register before they can download your dataset; you may share your data with all users that register or you may require that the PI or their nominee give consent for sharing on an individual basis if the data is of a (commercially) sensitive nature.

A good introduction to licencing research data can be found on the website of the Digital Curation Centre (DCC): <http://www.dcc.ac.uk/resources/how-guides/license-research-data>. A good introduction to licensing computer code can be found here: <http://choosealicense.com/>.

If you wish to negotiate license terms with someone or have any further queries relating to licensing your data, you should seek advice from the Research and Innovation Office.

More information

You will find more information on publishing your data on the SHU RDM website, <http://research.shu.ac.uk/rdm/publishing.html>, including:

- restrictions to openness
- licensing of your data
- the way others can cite your data

Storing and backing up

Storing and transferring personal and sensitive information should be compliant with:

- the University's Data Protection Policy Statement (Secretariat): <http://www.shu.ac.uk/about/foi/data.html>
- the University's Guidance Note on Data Protection and Research (Secretariat): https://staff.shu.ac.uk/university_secretariat/dp_research.asp
- the University's Research Data Management Policy: <http://www.shu.ac.uk/research/ethics/data-management-policy.html>
- the University's Cloud Storage Policy (IS&T): <http://eisf.shu.ac.uk/pdf/CloudStoragePolicy.pdf>
- the University's Electronic Data Encryption Policy (IS&T): <http://eisf.shu.ac.uk/pdf/ElectronicDataEncryptionPolicy.pdf>

- The University's Data Encryption Guidance (IS&T): <https://staff.shu.ac.uk/sls/services/itm/encryption.asp>

Please refer to the Electronic Information Security Framework (EISF), <http://eisf.shu.ac.uk>, for all SHU policies relating to storing and transmitting electronic information. There is guidance for students on the use of personal data available from https://students.shu.ac.uk/regulations/personal_information/UseOfPersonalData.html.

Networked storage

The University's Research Data Management Policy requires that all active research data is stored securely on the University networked storage system, and not on PC hard drives or external hard drives. It is recommended to use the Research Data Store (aka Q: drive), where data are automatically backed-up:

<http://research.shu.ac.uk/rdm/research-store.html>. Personal, confidential and sensitive information can be stored on the Q: drive under the condition that access permissions have been set up appropriately; it is important to periodically review these access permissions (eg to account for staff changes). Because data may be stored on servers outside of the European Economic Area (EEA) or US Safe Harbour locations, cloud storage solutions for personal, confidential and sensitive information - such as Dropbox and Google Drive - are only permitted if they meet the requirements of the University's Electronic Data Encryption Policy and if they are approved by local management and documented.

Portable devices

If research data need to be stored temporarily on portable devices such as laptops, tablets, phones, CDs and USB sticks, the researcher must ensure that this is done securely and that they comply with the University's policies and guidance on electronic data encryption by encrypting all personal and sensitive data. The University's encryption policy works to the ICO's recommended FIPS 140-2 level.

Transferring personal and sensitive information

Transferring any personal and sensitive information also requires encryption. When sending these data via email, the email needs to be encrypted, and when sending via USB stick, an encrypted USB stick should be used, which can be requested via IS&T's self-service portal. IS&T has web pages with encryption guidance. Data can also be sent and received securely using the SHU ZendTo service: <http://zendto.shu.ac.uk>.

More information

More information on storing and backing up can be found on the SHU RDM website: <http://research.shu.ac.uk/rdm/storing.html>.

Data security

Data stored on the Research Store (Q:\research) is secure under the condition that access to the project folders is managed appropriately. If you are using the Research Store, please list here who will have access to which folders / data on the Research Store.

More information

More information on security (<http://research.shu.ac.uk/rdm/storing.html#security>) and on the Research Store (<http://research.shu.ac.uk/rdm/research-store.html>) can be found on the SHU RDM website.

Data selection

When determining what primary research data to keep, three considerations should be made:

1. What is the purpose that the data could fulfil (e.g. to underpin research outputs or facilitate further analysis)

2. What data *must* be kept or destroyed because of policies (from SHU, research funders etc.) and regulations (such as the Data Protection Act)
3. What data *should* be kept because it has long-term value

The University's Research Data Management Policy specifically states that all research data that underpin publications and patent applications must be kept, as well as data that can be considered of long-term value.

More information

More information and guidance on selecting data including several case studies can be found on the SHU RDM website: <http://research.shu.ac.uk/rdm/selecting.html>. You will also find more information on legal and ethical aspects, which may be relevant to the second consideration: <http://research.shu.ac.uk/rdm/legal-and-ethical-aspects.html>.

Period of preservation

The University's Research Data Management Policy stipulates that "data must be stored for a period at least as long as that required by any funder or sponsor of the research, any publisher of the research or as set out in the University's Research and Knowledge Transfer Records Retention Schedule."

You can find your funders' requirements via SHERPA/JULIET, which lists all research funders' open access policies, including their data archiving requirements: <http://www.sherpa.ac.uk/juliet/>.

The University Records Retention Schedule (https://staff.shu.ac.uk/university_secretariat/records_revised.asp) clarifies that primary data generated by research — both on paper and in electronic form, and both by staff and postgraduate students — should be kept for a period of 'expiry of "privileged access" / embargo period + 10 years OR last date on which access to the data was requested by a third party + 10 years'. Should an external funder stipulate a longer retention period, then the longer retention period shall apply. If the legal contract governing the research stipulates a longer or shorter period, then the retention period set out in the contract shall apply. For clinical and health studies that are funded by the Medical Research Council, retention periods are considerably longer — 20 years if consent of individuals/patients was obtained, 30 years if it wasn't.

This applies to all research undertaken by both academic staff and research students.

More information

More information on preserving data can be found on the SHU RDM website: <http://research.shu.ac.uk/rdm/preserving.html>.

Timeframe for sharing

You can choose to make your data available at different points in time:

- immediately on collection of the data
- to coincide with publication of main results
- at the end of the research project

When you make your data available may depend on your funders' requirements.

Embargo periods can be set when sharing data: all RCUK funders accept 'a reasonable period of exclusive use',² e.g. to give you time to publish or to file patents. However, they do expect 'timely' availability of the data and individual funders may have explicit limits to the length of embargo periods, e.g. NERC allow for a

² <http://www.rcuk.ac.uk/research/datapolicy/>.

maximum embargo period of two years after the end of data collection,³ and EPSRC expects the data underlying a research output to be available online 'no later than the date of first online publication of the article'.⁴

If you are working on a PhD project or similar, please refer to the Academic regulations and student policies for Research degrees: <https://students.shu.ac.uk/regulations/research/>. Usually, you can apply for an embargo period for your thesis of up to 2 years when you meet strict conditions; the embargo would then also apply to the underpinning research data.

Methods for sharing

Registration of your data in SHURDA

All datasets that are produced by SHU researchers and research students, and that are retained after the end of the research project, either at the institution or elsewhere, need to be registered in SHURDA. This is a requirement of the University's Research Data Management Policy.

Finding a repository

There is a wide range of options available to preserve your data for the long term. You will find a list of repositories at re3data.org, REgistry of REsearch data REpositories: <http://www.re3data.org/>.

You are encouraged to deposit your dataset(s) in the University's institutional repository for research data, SHURDA. If you are not depositing your data in SHURDA but elsewhere, then you should register your dataset in SHURDA. Your dataset in SHURDA can be linked to any research outputs that are deposited in SHURA.

What to do with non-digital data?

You may have data that are in non-digital form and need to be kept, such as consent forms, paper questionnaires and lab books. According to the Research Data Management policy 'all hard copy data to support publications should be retained and stored in the Sheffield Hallam University Research Data Archive', <http://shurda.shu.ac.uk>.

Alternatively, paper data can be digitised and stored with the other digital data it belongs to; this could be a solution for lab notebooks of which only parts pertain to a digital dataset.

Discovery by users

There are many ways of ensuring that the data you share will be found by others. Possible ways of doing this include:

- depositing in an establish archive in your discipline, in your institutional repository, or in a general purpose self-archiving system such as Dryad (<http://www.datadryad.org>) or figshare (<http://figshare.com>)
- submitting your dataset to a journal as supplementary information with a paper
- personal networking at conferences
- etc.

Planning how your data can be discovered will help ensure you get the most value from your data (and your publications).

³ <http://www.nerc.ac.uk/research/sites/data/policy/datapolicy-guidance.pdf>.

⁴ <http://www.epsrc.ac.uk/files/aboutus/standards/clarificationsofexpectationsresearchdatamanagement/>.

SHURDA

If you deposit your data in SHU's institutional data repository, SHURDA, your data will be discoverable both within SHURDA and via any Web search engine such as Google, Bing and Yahoo! Because a unique Digital Object Identifier (DOI) will be minted for your dataset via DataCite (<http://www.datacite.org>), your data will also be discoverable via DataCite Metadata Search (<http://search.datacite.org>).

Statement in research outputs

Your data should also be discoverable via your published work. The University's Research Data Management Policy stipulates that all publicly funded research outputs such as journal articles require a short statement describing how and on what terms any supporting research data may be accessed.

You can find guidance and templates for a data availability statement on the SHU RDM website: <http://research.shu.ac.uk/rdm/statement.html>.

More information

You will find a checklist for things to consider when you are about to submit a paper on the SHU RDM website: <http://research.shu.ac.uk/rdm/end.html>.

Restrictions on sharing

What data you will share, with whom, and under what terms and conditions depend on the unique context of your research project.

The University's Research Data Management Policy states that making your data openly available should be the default position for publicly funded research. For all other research this is considered good practice.

However, there may be restrictions necessary for certain datasets. These could include:

- commercial confidentiality
- infringement of intellectual property rights
- contractual agreements
- ethical, legal or regulatory obligations
- or where the cost of sharing data would be prohibitive

The policy also states that exclusive rights to re-use or publish research data should not be handed over to commercial publishers or agents without retaining the rights to make the data openly available for re-use, unless this is a condition of funding.

If you are working on a PhD project or similar, please refer to the Academic regulations and student policies for Research degrees: <https://students.shu.ac.uk/regulations/research/>.

Responsibilities

The University's Research Data Management Policy says that the responsibility for research data management "lies with the principal investigator or in the case of a PhD project, the director of studies. It is their duty to ensure that all members of the research team with access to the research data adhere to good research data management practice. In the case of collaborative projects, if the principal investigator is based elsewhere, the lead researcher at Sheffield Hallam University must take responsibility for all data generated here."

The policy also stipulates that - in the case of publicly funded research - "a collaboration agreement must be in place with external partners before the start of the research that clearly addresses data management including what data are being shared and how the data can be used."

Resourcing

Depositing in SHURDA is free of charge

When depositing research data in the institutional repository for research data, SHURDA, no charges will be applied.

RDM Advisory Service

The University has a dedicated Research Data Management Advisory Service (rdm@shu.ac.uk). The service provides:

- help with filling out your Data Management Plan via email, telephone or one-to-one
- a Data Management Plan read-through service
- help with depositing in a research data repository, particularly SHURDA
- training and workshops, including bespoke sessions
- other help as required

Please do not hesitate to contact the service if you have any queries about your Data Management Plan, what support the University can provide, or about Research Data Management in general.

SHU RDM website

If you are looking for more guidance or links to more resources, you could have a look at the SHU RDM website: <http://research.shu.ac.uk/rdm/>.