Implementation of the Data Seal of Approval

The Data Seal of Approval board hereby confirms that the Trusted Digital repository The Finnish Social Science Data Archive (FSD) complies with the guidelines version 2014-2017 set by the Data Seal of Approval Board.
The afore-mentioned repository has therefore acquired the Data Seal of Approval of 2013 on September 23, 2014.

The Trusted Digital repository is allowed to place an image of the Data Seal of Approval logo corresponding to the guidelines version date on their website. This image must link to this file which is hosted on the Data Seal of Approval website.

Yours sincerely,

The Data Seal of Approval Board

Assessment Information

Guidelines Version: 2014-2017 | July 19, 2013
Guidelines Information Booklet: DSA-booklet_2014-2017.pdf
All Guidelines Documentation: Documentation

Repository: The Finnish Social Science Data Archive (FSD)
Seal Acquiry Date: Sep. 23, 2014

For the latest version of the awarded DSA   http://assessment.datasealofapproval.org/seals/
for this repository please visit our website:

Previously Acquired Seals: Seal date: September 23, 2014
                                    Guidelines version: 2014-2017 | July 19, 2013

This repository is owned by: **The Finnish Social Science Data Archive (FSD)**
                              •   Åkerlundinkatu 2 University of Tampere
                                    33014 Tampere
                                    FINLAND

                                    T +358401901432
                                    E fsd@uta.fi
                                    W http://www.fsd.uta.fi/en/

Assessment

0. Repository Context

Applicant Entry

Self-assessment statement:

The Finnish Social Science Data Archive (FSD) is a national service resource for scientific research and teaching. FSD archives, promotes and disseminates digital research data for research, teaching and learning purposes. The Archive is funded by the Ministry of Education and is a separate unit of the University of Tampere. FSD promotes open access to research data, and the transparency, accumulation and efficient reuse of scientific research.

More specifically, FSD archives quantitative and qualitative digital research data and additional material related to the data. Archived data are described using the DDI-Codebook format. The metadata include Representation Information, Preservation Information, Descriptive Information and Packaging Information. Archival Information Packages (AIP) are created for preservation and Dissemination Information Packages (DIP) for data delivery. Descriptive Information for all archived data is published on the FSD website, where the Designated Community is able to browse, search and download data. Data are also actively marketed.

The Data Archive's tasks are defined on a general level in the Regulations of the University of Tampere. The FSD's Archive Formation Plan contains specific information on the Archive's tasks, including preservation plan, ingest criteria, archival process, information system, and data protection practices. The Archive's internal Processing Manual contains detailed practical guidelines for all archival processes and procedures. Archived data are processed and described in compliance with international standards, practises and formats.

More information: http://www.fsd.uta.fi/en/organisation/index.html (12.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

1. The data producer deposits the data in a data repository with sufficient information for others to assess the quality of the data, and compliance with disciplinary and ethical norms.

Minimum Required Statement of Compliance:

3. In progress: We are in the implementation phase.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

In order to help data producers to manage their data appropriately, FSD has published and maintains the Data Management Handbook, a web resource that provides comprehensive guidance for social science researchers about data management during the whole data lifecycle.

Information and guidance about depositing data with FSD (for example, requirements for archiving, depositing procedure, agreements, data files and formats) is available online. FSD works with data providers before the data deposit to ensure that all relevant information is included in the Submission Information Package (SIP). FSD checks that copyright has been cleared, that there are no legal impediments to archiving, and that the original purpose of data collection does not prevent archiving.

FSD requests citations to publications based on the data to be included in the SIP. Also solicited is information on the methodology used in data collection and information on persons and organisations involved in producing the data.

FSD strives to obtain and provide a sufficient amount of information on all datasets and their original creators to enable both long-term preservation and quality assessments by data re-users. Collected information is passed on to data consumers.

Linked Documentation

FSD's Data Management Handbook:

- Complete version, available only in Finnish: http://www.fsd.uta.fi/tiedonhallinta/ (11.8.2014)

- A shortened version is available in English. At the moment it includes information about Data Management Planning, Anonymisation, Informing Research Participants , Qualitative and Quantitative Data Processing: http://www.fsd.uta.fi/en/services/index.html (11.8.2014)

Information and advice on Depositing Data (in English): http://www.fsd.uta.fi/en/data/depositing/index.html (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

2. The data producer provides the data in formats recommended by the data repository.

Minimum Required Statement of Compliance:

> 3. In progress: We are in the implementation phase.

Applicant Entry

Statement of Compliance:

> 4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

The depositor may deliver data files to FSD in their existing digital format. If conversion to another format is needed, the Archive will do the conversion. During Ingest, all files are checked and if necessary, the depositor is asked to provide further information about the tools and methods used to create the files. The quality checks are done manually by data managers, and the checking procedure is described in detail in our internal Processing Manual.

Linked Documentation

Information on Depositing Data:

- in Finnish http://www.fsd.uta.fi/fi/aineistot/arkistointi/index.html (11.8.2014)

- in English (shorter version): http://www.fsd.uta.fi/en/data/depositing/index.html (11.8.2014)

The FSD's Archive Formation Plan contains detailed information about the Ingest process and also describes the qualitative, technical and legal criteria the data have to meet in order to be accepted to the Archive. Available online in Finnish only: http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_ohjeosa.html#seulontaperiaatteet (11.8.2014)

- The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

In the available documentation, there is no list of accepted file formats. If the FSD accepts all file formats (which would also be fine), there need to be an (ideally communicated) awareness, that FDS is expecting to be able to deal with some file formats better than with others. Which ones and why? From other documentation it is clear that FSD migrates textual data at Ingest into rtf, so FSD only accept file formats that you would be able to migrate into rtf?

Since the minimum required Statement of Compliance for this criteria is: 3. In progress: We are in the implementation phase, the statement is accepted.

Please see the comment for criteria 7 as well.

3. The data producer provides the data together with the metadata requested by the data repository.

Minimum Required Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

Data depositors provide metadata through the "Dataset Description" and "Deposit Agreement" forms and by providing related material like questionnaires, code lists, and publications or citations to publications where data have been used. We accept a variety of metadata and documentation: electronic, paper, structured, unstructured etc. This information forms the basis of the metadata record, which is created by FSD.

The documentation the depositors provide includes descriptive metadata, structural metadata and administrative metadata. FSD's data managers check all the documentation and make sure that all required metadata are included, add metadata, and create the final metadata record in DDI Codebook XML format. In addition to the DDI metadata, administrative metadata are stored in FSD's internal operational database. If the Submission Information Package lacks documentation, FSD's data managers contact the data depositor to obtain all the required information.

The online Data Management Handbook provides guidance on how to document data, what metadata is needed, how metadata can be stored, and how to document data files and variables. We also provide guidance on metadata formats.

The final metadata record contains items that support resource discovery (for example, all CESSDA mandatory elements) as well as secondary analysis (for example information about data collection and information about variables). For all studies, rich study-level metadata is made available for data consumers in Finnish and in English. For quantitative studies, variable-level metadata is made available in the language of the data ie. mainly in Finnish. However, most of the quantitative data files are translated into English and consequently variable-level metadata for them in English are made available as well.

Linked Documentation

Information on Depositing Data:

- in Finnish http://www.fsd.uta.fi/fi/aineistot/arkistointi/index.html (11.8.2014)

- in English (shorter version): http://www.fsd.uta.fi/en/data/depositing/index.html (11.8.2014)

Forms for depositing data (in English): http://www.fsd.uta.fi/en/forms/index.html (11.8.2014)

FSD's DDI Codebook metadata records (in English): http://www.fsd.uta.fi/en/data/background/ddi-records.html (11.8.2014)

Guidance for researchers on metadata and data documentation in FSD's Data Management Handbook (in Finnish): http://www.fsd.uta.fi/tiedonhallinta/osa8.html (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

4. The data repository has an explicit mission in the area of digital archiving and promulgates it.

Minimum Required Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

FSD's mission statement is defined in the Regulations of the University of Tampere (5§). It describes the responsibilities of the FSD in the following manner: "The Finnish Social Science Data Archive (FSD) serves research and teaching on the national level. The FSD archives digital research data from Finland and abroad and disseminates it for research, teaching and learning purposes."

The Archive has a dedicated national service mission and mandate from the Finnish Ministry of Education and Culture. The mandate is based on an open tender for selected Finnish Universities in the end of the 1990s. In March 2013, the Ministry signed the updated MoU for establishing the CESSDA AS / CESSDA ERIC, for which FSD is the Service Provider. FSD is also included in the national roadmap for research infrastructures.

FSD has a national Advisory Board, where all major universities and several key partners, like the National Archives and Statistics Finland, have representation. The role of the Advisory Board is strategic and consultative.

FSD's Archive Formation Plan, approved by the National Archives, and available online, contains specific information on the Archive's tasks, including ingest criteria, preservation policy, preservation plan, file plan, archival process, information system, records management and data protection practice. FSD is committed to finding a successor to manage the data holdings in the event that FSD can no longer manage them.

FSD's Strategic Plans as well as Annual Reports provide information on how the mission statement is implemented. The plans and reports are available online.

FSD promotes its data holdings and services as well as best practices to data management to the scientific community in a variety of ways, including exhibits at scientific conferences and seminars and meetings of professional associations, print and electronic brochures, and staff efforts in specific areas. The most important gateway to FSD's services is FSD's website.

Linked Documentation

University of Tampere Ordinance 5§ (available in Finnish only): FSD has a national task to serve research and teaching by archiving and disseminating digital research data for research, teaching and studying in higher education. http://www.uta.fi/hallinto/yliopistopalvelut/yleishallinto/saadokset/johtosaanto.html (11.8.2014)

Finland's Strategy and Roadmap for Research Infrastructures 2014-2020

- The report (available in Finnish only):
  http://www.aka.fi/Tiedostot/Tiekartta/Tutkimusinfrastruktuurien_strategia_ja_tiekartta_2014_20.pdf
  (11.8.2014)

- Short description and list of included infrastructures in English:
  http://www.aka.fi/en-GB/A/Programmes-and-cooperation/Research-infrastructure-funding/Roadmap-for-2013-update-guidelines/
  (11.8.2014)

FSD's Advisory Board: http://www.fsd.uta.fi/en/organisation/board.html (11.8.2014)

FSD's Archive Formation Plan (in Finnish): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html (11.8.2014)

- The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

FSD's Strategic Plans and Annual Reports (in Finnish): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/index.html (11.8.2014)

- Highlights available in English on the News section: http://www.fsd.uta.fi/en/news/ (11.8.2014) and on FSDBulletin: http://www.fsd.uta.fi/lehti/en/latest/ (11.8.2014)

FSD's website (in English): http://www.fsd.uta.fi/en/index.html (11.8.2014)

FSD's tasks listed in more detail (in English): http://www.fsd.uta.fi/en/organisation/index.html (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

5. The data repository uses due diligence to ensure compliance with legal regulations and contracts including, when applicable, regulations governing the protection of human subjects.

Minimum Required Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

FSD is not a legal entity. The host insitution is the University of Tampere and FSD is a separate unit of the University.

All data depositors sign a Deposit Agreement with FSD.

All data users agree to General Terms and Conditions for Data Use and to Terms and Conditions for Aila Use (Aila is FSD's online data service portal).

Data access and use conditions are described on FSD's website "Downloading and Using Data" and on the Aila data service portal. In Aila, the data users need to fill in the access application form, providing information on the purpose of data use, their research or study, and information on funders, if any. By downloading data from Aila, users accept and agree to the terms and conditions set out for the use of the downloaded data. Any study-specific access conditions are described in the study documentation.

There are measures in place if the conditions are not complied with. FSD has the right to close the user account of any user who has breached the terms and notify the user's home organization and research funders of the breach.

Data with disclosure risk is handled appropriately. FSD's Archive Formation Plan contains information on the legislation that is taken into account in data archiving: (Archives Act (831/1994); Act on the Openness of Government Activities (1999/61); Copyright Act (1961/404); Personal Data Act (1999/523)). It also contains FSD's data protection practices, whereas FSD's Internal Manual describes anonymisation procedures in detail. FSD provides researches guidance on anonymisation and privacy issues. FSD does not ingest materials that have unresolved rights issues.

Knowledge and compliance with national and international laws is ensured by participating in national and international co-operation, projects and training. FSD's Development Manager is specialised in research ethics, privacy protection and copyright issues. She has published a book in Finnish called Tutkimusetiikka (Research Ethics) that deals with the ethical and legal aspects of data acquisition, processing and preservation.

Linked Documentation

Forms for Depositing Data (in English): http://www.fsd.uta.fi/en/forms/index.html (11.8.2014)

Information on Downloading and Using Data (in English): http://www.fsd.uta.fi/en/data/ordering/index.html (11.8.2014)

General Terms and Conditions for Data Use (in English): https://services.fsd.uta.fi/docs/terms-of-use?lang=en (11.8.2014)

Terms and Conditions for the Use of the Aila Data Service Portal (in English): https://services.fsd.uta.fi/docs/eula?lang=en (11.8.2014)

FSD's Archive Formation Plan (in Finnish only): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html (11.8.2014)

• The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

Guidance on Anonymisation and Identifiers (in English): http://www.fsd.uta.fi/en/anonymisation/index.html (11.8.2014)

Detailed advice about data disclosure, anonymisation and identifiers in the Data Management Handbook (in Finnish): http://www.fsd.uta.fi/tiedonhallinta/osa7.html (11.8.2014)

The book about research ethics by FSD's Development Manager Arja Kuula (in Finnish): Arja Kuula (2006). Tutkimusetiikka. Tampere: Vastapaino. ISBN: 9517681720.

- Abstract in English: http://www.fsd.uta.fi/lehti/en/19/Arjan_kirja.html (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

6. The data repository applies documented processes and procedures for managing data storage.

Minimum Required Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

FSD's Archive Formation Plan, which has been approved by the National Archives, contains specific information on the Archive's tasks, including preservation policy, ingest criteria, archival process, information system, and data protection practices. FSD's Internal Manual contains detailed instructions on data processing and managing procedures.

FSD applies documented processes and procedures for guaranteeing the storage of data. The strategy for multiple copies/backups, recovery plans as well as a description of the risks and actions taken to reduce risk and overcome problems, are included in the Archive Formation Plan (Chapter 5). Data are stored at FSD's own server and back-ups are exported to University of Tampere's servers. Biannual back-ups tapes are delivered to the National Archives in Helsinki. Checksums are run on a routine schedule to ensure the integrity of the data in the repository. Storage media are monitored for deterioration and back-up copies are tested. Back-up procedures and recovery of files are described in detail in the Internal Manual. Stored data formats are monitored to identify potential preservation issues. Random archived data files are checked manually on a regular basis.

In most cases, data files have no security issues and may be delivered to the archive as an attachment to an e-mail. If the file contains sensitive information, the depositor and FSD choose the best transfer method case-by-case, for example, file transfer or a disk by post. Data files delivered to FSD are stored in a separate folder and checked by FSD staff before they are moved to the data folder. Only FSD staff have access to the data files (using their user name and password). Data files containing sensitive material are deleted according to University's Security instructions.

In terms of physical security, FSD's front doors are connected to an access control system. The server room door is also connected to the access control system, and only certain FSD employees have access to it. In addition, we follow the University of Tampere's Security instructions that include information about procedures in various crisis like fire and bomb threat.

The Head of the Technical Services is a member of FSD's Preservation Team that is responsible for the Archive Formation Plan and the preservation strategy.

Linked Documentation

FSD's Archive Formation Plan (in Finnish only): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html
(11.8.2014)

- Chapter 5: Information systems and data security

- The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

University of Tampere Security Information, short one-page version in English:
http://www.uta.fi/english/administration/universityadministration/facilities/security.html (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

7. The data repository has a plan for long-term preservation of its digital assets.

Minimum Required Statement of Compliance:

3. In progress: We are in the implementation phase.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

FSD's Archive Formation Plan, which has been approved by the National Archives, contains specific information on the Archive's tasks, including preservation policy, ingest criteria, archival process, information system, and data protection practices. FSD's Internal Manual contains detailed guidelines on data processing and managing procedures.

In particular, Section 5 of the Archive Formation Plan states that FSD will use migration strategy for providing long-term preservation of the FSD data holdings. The data formats that FSD uses for storing the data are chosen with long-term preservation in mind, avoiding propietary, closed or rarely used file formats. Extensive metadata are collected and stored to ensure the usability of data.

Developments and progress in technologies are followed closely, and FSD's staff are involved in a national project, the National Digital Library, that plans and implements the national long-term preservation solution for digital cultural heritage materials.

Linked Documentation

FSD's Archive Formation Plan (in Finnish only): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html (11.8.2014)

- The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

National Digital Library Project / Long-term preservation (summary in English): http://www.kdk.fi/en/long-term-preservation (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

To grade this criteria as fully implemented, I would look for specific preservation plans or documentation on how you approach this subject. An example would be the use of PLATO or a similar approach that would involve risk assessment and a process of regular re-checking of the risks of your data. At the moment there is not yet an acknowledged state of the art approach to the topic of preservation planning. Since the minimum required Statement of Compliance for this criteria is: 3. In progress: We are in the implementation phase, the statement is accepted.

Please see the comment for criteria 2 as well.

8. Archiving takes place according to explicit work flows across the data life cycle.

Minimum Required Statement of Compliance:

> 3. In progress: We are in the implementation phase.

Applicant Entry

Statement of Compliance:

> 4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

> FSD's Archive Formation Plan, which has been approved by the National Archives, contains specific information on the Archive's tasks, including preservation policy, ingest criteria, archival process, information system, and data protection practices. FSD's Internal Manual contains detailed instructions on data processing and managing procedures.

> The Archive Formation Plan (Chapter 3) describes Selection and Ingest, including anonymization and data privacy and data formats, in general level. The internal manual contains process descriptions as well as step-by-step directions for processing the data, creating the metadata and validating of the files. If any two data managers would process the same data according to the instructions, the resulting data and metadata files would be substantially similar. FSD's operational database contains information about the workflow (what is the status of the study; who is processing the data and metadata etc.).

> If ad-hoc decisions are needed to deal with special cases, the decisions are made by the Head of Data Services and documented in the metadata and/or operational database.

> **Linked Documentation**

> FSD's Archive Formation Plan (in Finnish only): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html (11.8.2014)

> • The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

Short description of data processing at FSD in English:
http://www.fsd.uta.fi/en/data/depositing/index.html#processing (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

9. The data repository assumes responsibility from the data producers for access and availability of the digital objects.

Minimum Required Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

All studies ingested in FSD are controlled by a Deposit Agreement which gives FSD the responsibility for safekeeping and disseminating of the data. The depositor/data producer may set certain conditions for the dissemination of the data (for example, embargos). FSD has no exclusive rights to the data, data depositors are allowed to make their own data available in any means that they wish. FSD's dissemination policy is part of the Archive Formation Plan (Chapter 3.3).

In terms of risks, if depositors state that the data may be disseminated only with their permission, they need to state in the Deposit Agreement what procedure will be employed if the person granting the permission cannot be reached (for instance, the contact information is no longer accurate) or can no longer grant the permission him/herself. Signed Deposit Agreement forms are archived in paper format, and detailed description of this archival procedure is part of the Archive Formation Plan.

Description of the potential (technical and physical) risks, and actions taken to reduce the risks and overcome problems are included in the Archive Formation Plan (Chapter 5).

Administrative information about data disseminations is stored by the Aila Data Service Portal. The internal Manual contains information about the maintenance of the Aila portal as well as instructions on procedures to employ if the portal crashes. Aila's database records as well as other internal data are backed up similarly to Archival Information Packages.

Users can download data online from the Aila Data Service Portal. Even without registration, users can browse the data catalogue, search for data, browse study descriptions and variables, and download open access data. By registering, users can download datasets that have access conditions.

Linked Documentation

Deposit Agreement (in English): http://www.fsd.uta.fi/en/forms/deposit.rtf (11.8.2014)

FSD's Archive Formation Plan (in Finnish only): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html (11.8.2014)

- The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

Aila Data Service Portal (in English): https://services.fsd.uta.fi/index?lang=en (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

10. The data repository enables the users to discover and use the data and refer to them in a persistent way.

Minimum Required Statement of Compliance:

3. In progress: We are in the implementation phase.

Applicant Entry

Statement of Compliance:

3. In progress: We are in the implementation phase.

Self-assessment statement:

Study descriptions are published on the Aila Data Service Portal and on FSD's Nesstar catalogue. Both have search facilities, and FSD provides online guidance on how to search data. Study descriptions are available in Finnish and in English. Data files are available in various formats, SPSS being the most popular for quantitative data and rtf for qualitative data.

Data descriptions are also openly available online for everyone as machine readable DDI 2.0 XML files (compatible with DDI 2.1) under a Creative Commons Attribution 4.0 International (CC BY 4.0) license.

FSD ensures that all the studies in its holdings are usable and uniquely identifiable. FSD assigns each study an FSD identification number at the study level. The FSD identifier is permanent and unique (within FSD). We are planning to implement PIDs in the near future, and the National Library of Finland has granted FSD a namespace for creating URN identifiers.

A recommended citation is included in the study descriptions of datasets archived at the FSD. The user can copy and use the recommended citation or amend it to be compatible with the citation requirements of the publication. Guidance on data citation practice is provided on the FSD website.

FSD also provides a research methods web resource (MOTV in Finnish), an environment for teaching and learning quantitative and qualitative research methods of the social and behavioural sciences.

Via the Nesstar catalogue, FSD's study descriptions are included in the CESSDA Data Portal. FSD is responsible for the Finnish version of the ELSST thesaurus.

Aila Data Service Portal gives users access to FSD data holdings through online registration and data download.

Linked Documentation

Aila Data Service Portal (in English): https://services.fsd.uta.fi/index?lang=en (11.8.2014)

FSD's Nesstar Catalogue: http://fsd2.uta.fi:8080/webview/ (11.8.2014)

Guidance on searching data (in English): http://www.fsd.uta.fi/en/data/data_search.html (11.8.2014)

FSD metadata records in DDI XML (in English): http://www.fsd.uta.fi/en/data/background/ddi-records.html (11.8.2014)

Information on downloading and using data (in English): http://www.fsd.uta.fi/en/data/ordering/index.html (11.8.2014)

Guidance on citing data (in English): http://www.fsd.uta.fi/en/data/ordering/citing_data.html (11.8.2014)

Research Methods Web Resource MOTV (short description in English): http://www.fsd.uta.fi/menetelmaopetus/englex.html (11.8.2014)

CESSDA data portal: http://www.cessda.org/accessing/catalogue/ (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

11. The data repository ensures the integrity of the digital objects and the metadata.

Minimum Required Statement of Compliance:

3. In progress: We are in the implementation phase.

Applicant Entry

Statement of Compliance:

3. In progress: We are in the implementation phase.

Self-assessment statement:

FSD's Archive Formation Plan (Chapter 3.2) describes the ingest and processing of studies and what kind of data and metadata files are created (Attachment 1, Tables 5-9). For each data, an AIP is created, containing data and metadata. Usually the AIP is also the DIP, but sometimes (because of an embargo or data protection issues) both AIP and DIP are created.

Each study is processed by a data manager. All changes made by FSD to a SIP to create an AIP to allow digital preservation are documented by FSD data managers. Complete information about each data and metadata file as well as change logs and additional administrative metadata are stored in FSD's operational database, and certain information is also published with the metadata. Data are given a version number, and changes made to create a new version are described in detail (usually in the form of SPSS syntax). Metadata files are not versioned, although a history log is maintained (manually) in the operational database. The version number of a study is the same as the version number of the data of that study. The Internal Manual contains step-by-step instructions on versioning.

By default, access is given only to the most recent version of the study. For earlier versions, users must contact FSD staff. Version number of the study is part of its citation.

Checksums are calculated and compared to previous state on a routine schedule to ensure the integrity of the data (AIPs). The internal Manual describes this process.

The FSD website and Aila Data Service Portal are available 24/7. Both are generated from an offline source on a schedule. Site generation also acts as monitoring mechanism. In the event of the site becoming unavailable due to malfunction at FSD, staff will set up a replacement and set it as target for site generation.

An ongoing (2013-2014) project "Meeting CESSDA-ERIC requirements", funded by the Academy of Finland, aims at building a new database and tools for metadata capture, storage and repurposing. The new database will include advanced version control of metadata and data.

Linked Documentation

FSD's Archive Formation Plan (in Finnish only): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html (11.8.2014)

- The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

Description of the project "Meeting CESSDA-ERIC requirements" on the Academy of Finland's website (in English):
http://webfocus.aka.fi/ibi_apps/WFServlet?IBIF_ex=x_HakKuvaus&HAKNRO1=271853&UILANG=en (11.8.2014)

- Project website (in Finnish only): http://www.fsd.uta.fi/fi/hankkeet/veric/index.html (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

12. The data repository ensures the authenticity of the digital objects and the metadata.

Minimum Required Statement of Compliance:

> 3. In progress: We are in the implementation phase.

Applicant Entry

Statement of Compliance:

> 3. In progress: We are in the implementation phase.

Self-assessment statement:

> FSD ensures a relevant level of authenticity of both digital objects and documentation supplied by the depositor. All data provenance characteristics are recorded and maintained from the point of data deposit, and a reasonable effort is made to track and document the steps by which the data was derived or created. If necessary information (mandatory metadata elements) cannot be gathered, the study is not archived or is archived with notes about missing metadata. Publications based on data are the most usual source of, and form of representing, the provenance information on research data.

> FSD's internal Manual contains detailed information on mandatory metadata elements. Guidance to depositing data as well as deposit forms are available on FSD's website.

> FSD is committed to preserve the integrity of the intellectual content of the data and metadata. Chapter 5 of the Archive Formation Plan states that FSD will use migration strategy for providing long-term preservation of FSD data holdings. The Archive Formation Plan is available online.

> Linking between the metadata and data are maintained in the operational database, and FSD metadata includes links to other datasets. In addition, the metadata includes links to publications based on the data.

> Stringent back-up routines ensure authenticity in the archival storage. Back-up strategies are described in the Archive Formation Plan (Chapter 5) and the routines themselves are described in detail in the Internal Manual.

> FSD does not check the identity of depositors. This has never been an issue for FSD to the best of our knowledge. Depositors are contacted regularly during the pre-archiving and archiving stages and problems with identity should be detected at one of these contact points. The Finnish researcher community is also relatively small.

Linked Documentation

FSD's Archive Formation Plan (in Finnish only): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html (11.8.2014)

• The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

Guidance on Depositing data (in English): http://www.fsd.uta.fi/en/data/depositing/ (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

13. The technical infrastructure explicitly supports the tasks and functions described in internationally accepted archival standards like OAIS.

Minimum Required Statement of Compliance:

3. In progress: We are in the implementation phase.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

The FSD self-evaluated its archival and dissemination procedures against OAIS in 2010. The results indicated FSD follows the broad guidance given in the OAIS reference model across the whole of the archival process. FSD supports the information model of OAIS and fulfils the six responsibilities set out in the model, and the six functional entities mentioned in the model are identifiable in the Archive's operations.

However, there are areas where FSD needs to extend or diverge from the standard. In OAIS, Ingest has been described only briefly and acquisition (pre-ingest) practically omitted, whereas they are central processes in the FSD. On the other hand, the model presents administration and preservation planning in a much more exhaustive manner compared to the FSD. FSD also constructs DIPs during the ingest process rather than automatically from an AIP on demand.

In 2012, FSD self-assessed its long-term preservation practices using TDR metrics. The evaluation was part of FSD Upgrade Project, and the results will be utilised in the project as well as in further projects, such as the ongoing VERIC project that aims at building a new metadata database. In 2013, FSD participated in the CESSDA Trust Process where DSA was used as a tool.

FSD is also involved in the ongoing National Digital Library Project (KDK) that aims to ensure that electronic materials of Finnish culture and science are managed with a high standard, and are easily accessed and securely preserved well into the future. FSD is committed to adhering to the KDK recommendations, which include, for example, recommendations on acceptable file formats as well as on administrative and structural metadata and material packaging for long-term preservation.

In a more general level, plans for infrastructure development (both technical and strategic) are made and updated on a continuous basis. FSD is among the infrastructures mentioned in the Finnish Roadmap on Research Infrastructures (2009 and 2014).

Linked Documentation

Short article in English about FSD and OAIS (based on an internal report in Finnish): http://www.fsd.uta.fi/lehti/en/30/oais.html (11.8.2014)

FSD Upgrade Project (in English): http://www.fsd.uta.fi/en/news/FSDupgrade.html#research (11.8.2014)

Mari Kleemola (2012). Improving Operations Using Standards and Metrics: Self-Assessment of Long-Term Preservation Practices at FSD. Presentation at the 38th IASSIST Conference, June 4-8, 2012, Washington DC. http://www.iassistdata.org/conferences/2012/presentation/3328 (11.8.2014)

The National Digital Library (KDK) Project (in English): http://www.kdk.fi/en (11.8.2014)

National-level research infrastructures (in English): http://www.aka.fi/en-GB/A/Programmes-and-cooperation/Research-infrastructure-funding/ (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

14. The data consumer complies with access regulations set by the data repository.

Minimum Required Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

FSD's data dissemination policy is included in the Archive Formation Plan (Chapter 3.3).

FSD data consumers agree to data use conditions when downloading data from the Aila Data Service Portal. Users need to fill in the access application form first, providing information on the purpose of data use, their research or study, and information on funders, if any. By downloading data from Aila, users accept and agree to the terms and conditions set out for the use of the downloaded data.

Some data are provided only for research or under special restrictions, while other data are provided for any academic use and some are openly accessible for anyone.

All data users receive an email with information about proper use and disposal of data as well as a request to inform the Archive of all publications based on downloaded studies. In addition, data downloads are monitored by FSD's data managers. These processes are described in the Internal Manual.

Aila supports the identity federation of the Finnish universities, polytehcnincs and research institutions (HAKA), which allows students and staff of these organisations to register using the credentials provided by their institution.

In case of a breach, FSD has the right to close the client account of any user who has breached the terms and notify the user's home organisation and research funders of the breach.

Linked Documentation

FSD's Archive Formation Plan (in Finnish only): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html (11.8.2014)

- The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

Information about HAKA identity federation: https://confluence.csc.fi/display/HAKA/In+English (11.8.2014)

Aila Data Service Portal (in English): https://services.fsd.uta.fi/index?lang=en (11.8.2014)

- Terms and Conditions for Aila Use - Terms and conditions applying to the use of the Aila data service portal (in English): https://services.fsd.uta.fi/docs/eula?lang=en (11.8.2014)

- General Terms and Conditions for Data Use - Terms and conditions applying to the use of any dataset contained in Aila (in English): https://services.fsd.uta.fi/docs/terms-of-use?lang=en (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

15. The data consumer conforms to and agrees with any codes of conduct that are generally accepted in the relevant sector for the exchange and proper use of knowledge and information.

Minimum Required Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

FSD's data dissemination policy is included in the Archive Formation Plan (Chapter 3.3).

FSD data consumers agree to data use conditions when downloading data from Aila Data Service Portal. In case of a breach, FSD has the right to close the client account of any user who has breached the terms and notify the user's organization and research funders of the breach.

The users agree, for example, that:

- When using the data, they shall not compromise the confidentiality and privacy of individuals or bodies connected to the data.

- They shall preserve the confidentiality of information also when publishing results obtained from the data.

- They undertake to comply with specific restrictions set out for the use of a particular dataset, if there are any.

- They shall follow the ethical guidelines drawn up by the National Advisory Board on Research Integrity in Finland when using the data.

- They undertake to provide a sufficient level of data security in the storage, use and transfer of data.

Any results of the secondary analysis must be reported in a way that there is no risk of disclosing the identity of any research subject (e.g. using statistical tables/charts).

In addition, the Data Management Handbook (Section 7) provides general guidance on handling data containing personal identifiers. FSD staff regularly give lectures and presentations about responsible management and use of research data.

Linked Documentation

FSD's Archive Formation Plan (in Finnish only): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html (11.8.2014)

- The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

General Terms and Conditions for Data Use (in English): https://services.fsd.uta.fi/docs/terms-of-use?lang=en (11.8.2014)

Guidance on Downloading and Using Data (in English): http://www.fsd.uta.fi/en/data/ordering/index.html (11.8.2014)

Data Management Handbook (In Finnish): http://www.fsd.uta.fi/tiedonhallinta/ (11.8.2014)

Information about "Anonymisation and Identifiers" in English: http://www.fsd.uta.fi/en/anonymisation/index.html (11.8.2014)

Responsible conduct of research and procedures for handling allegations of misconduct in Finland. Guidelines of the Finnish Advisory Board on Research Integrity 2012: http://www.tenk.fi/en/resposible-conduct-research-guidelines (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

16. The data consumer respects the applicable licences of the data repository regarding the use of the data.

Minimum Required Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Applicant Entry

Statement of Compliance:

4. Implemented: This guideline has been fully implemented for the needs of our repository.

Self-assessment statement:

FSD's data dissemination policy is included in the Archive Formation Plan (Chapter 3.3). The Archive Formation Plan also contains information on the legislation that is taken into account in data archiving and disseminating: Archives Act (831/1994); Act on the Openness of Government Activities (1999/61); Copyright Act (1961/404); Personal Data Act (1999/523).

FSD data consumers agree to General Terms and Conditions for Data Use before getting access to the data. The conditions include that the user shall follow the ethical guidelines drawn up by the National Advisory Board on Research Integrity in Finland when using the data. In case there are study specific conditions, the user is informed of them and needs to agree to these conditions as well.

It is not completely possible to ensure that all data users respect the applicable licences. However, FSD has the right to close the client account of any user who has breached the terms and notify the user's home organization and research funders of the breach. FSD also sends all users emails to remind them of their obligation to inform FSD about any publications based on the data and that they must dispose of the data after the use (or re-apply for new use purpose).

Linked Documentation

FSD's Archive Formation Plan (in Finnish only): http://www.fsd.uta.fi/fi/hallinto/asiakirjat/AMS/ams_index.html (11.8.2014)

- The Archive Formation Plan is currently being translated and will be published in English on our website in the near future. A draft translation is available on request.

General Terms and Conditions for Data Use (in English): https://services.fsd.uta.fi/docs/terms-of-use?lang=en (11.8.2014)

Responsible conduct of research and procedures for handling allegations of misconduct in Finland. Guidelines of the Finnish Advisory Board on Research Integrity 2012 http://www.tenk.fi/en/resposible-conduct-research-guidelines (11.8.2014)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments: