

### Implementation of the Data Seal of Approval

The Data Seal of Approval board hereby confirms that the Trusted Digital repository Odum Institute Data Archive 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 19, 2013.

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: <u>Documentation</u>

Repository: Odum Institute Data Archive

Seal Acquiry Date: Sep. 19, 2013

For the latest version of the awarded DSA for this repository please visit our website:

http://assessment.datasealofapproval.org/seals/

Previously Acquired Seals: None

This repository is owned by: Odum Institute for Research in Social Science

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#### **Assessment**

#### **0. Repository Context**

#### **Applicant Entry**

Self-assessment statement:

The Odum Institute Data Archive (hereinafter referred to as "Odum Archive") houses one of the oldest and largest catalogs of machine readable data in the United States. The Odum Archive encourages data producers to deposit data on any social science or health topic and provides data management consultation and support throughout the research data lifecycle. Access to the Odum Archive's digital holdings is provided through the Odum Institute Archive Dataverse Network (DVN). The Odum Archive's primary function, which follows the Reference Model for an Open Archival Information System (OAIS) functional model, is to process the Submission Information Package (SIP), prepare and ingest the Archival Information Package (AIP) for long-term preservation, and assist in the discovery and access of the Dissemination Information Package (DIP) by the data consumer through the DVN interface.

The Odum Archive is engaged in a partnership with the Data Preservation Alliance for the Social Sciences (Data-PASS), which is comprised of institutions dedicated to preserving social science research by participating in a shared catalog, a preservation network, and other collaborative projects that support best practices for research data archives. Data-PASS partners include The Institute for Quantitative Social Science (IQSS), Harvard University; Inter-university Consortium for Political and Social Research (ICPSR), University of Michigan (currently holds a 2010 Data Seal of Approval); The Electronic and Special Media Records Service Division, National Archives and Records Administration; The Roper Center for Public Opinion Research, University of Connecticut; and The Social Science Data Archive, University of California, Los Angeles.

Data-PASS members are bound by a membership agreement, which grants the partnership the licenses required to permit member institutions' access to content though a federated catalog and generate preservation copies. Members are also committed to adopt and advocate best practices in digital preservation. These and other agreements are outlined in the Data-PASS Articles of Collaboration.

Odum Institute Data Archive: http://www.odum.unc.edu/odum/contentPrimary.jsp?nodeid=7 (accessed 7/29/2013)

Odum Institute Archive Dataverse Network: <a href="http://arc.irss.unc.edu/dvn/">http://arc.irss.unc.edu/dvn/</a> (accessed 7/29/2013)

Data-PASS Articles of Collaboration: <a href="http://www.data-pass.org/sites/default/files/collaboration.pdf">http://www.data-pass.org/sites/default/files/collaboration.pdf</a> (accessed 7/29/2013)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

# 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:

All data deposited into the Odum Archive requires the submission of a Data Deposit Form, which requests from the data producer information pertaining to research methodology and data sensitivity, and grants rights to the Odum Archive to re-disseminate the data and supplementary files (e.g., codebooks, methodology) through the DVN. The Data Deposit Form also requires that the data producer remove any personally identifiable information from the data and to verify they hold the copyright to the files.

The Odum Archive staff also appraises data collections for acceptability of file formats and inclusion of sufficient documentation (see Appraisal Checklist within Appraisal Policies) necessary for data replication, verification, and re-use. In the instance of insufficient documentation or content discrepancies, the Odum Archive will correspond with the data producer to seek clarification or obtain information from external sources dependent on the value of the data (see Issues, Documentation, and Packaging within the Appraisal Policies).

Data Deposit Form: http://www.odum.unc.edu/content/pdf/OdumDepositForm.pdf (accessed 7/29/2013)

Odum Institute Dataverse Network: <a href="http://arc.irss.unc.edu/dvn/">http://arc.irss.unc.edu/dvn/</a> (accessed 7/29/2013)

Appraisal Policies: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=627 (accessed 7/29/2013)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

#### 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 Odum Archive published a list of preferred file formats on our Archiving Data webpage as well as in the cover page that accompanies the Data Deposit Form. Our Data Deposit Form requests detailed information on the types of data formats provided by the data producer. During the Odum Archive's processing of the data collection, original file formats will be stored as part of the Submission Information Package (SIP) and datasets are converted into a preferred format if necessary in accordance with our Appraisal Policies (see Processing of Materials).

Archiving Data: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=11 (accessed 7/29/2013)

Data Deposit Form: http://www.odum.unc.edu/content/pdf/OdumDepositForm.pdf (accessed 7/29/2013)

Appraisal Policies (Processing of Materials): <a href="http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=627">http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=627</a> (accessed 7/29/2013)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

## 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:

The Data Deposit Form requests that data producers provide all metadata necessary to interpret the data prior to data ingest. If the data producer does not provide required metadata, the Odum Archive staff will attempt to contact the data producer to request the needed information. The metadata standards used by the Archive are detailed in our Metadata Policies, which reference the Data Documentation Initiative (DDI) metadata specification. The DDI metadata specification has been internationally adopted for describing data for the social, behavioral, and economic sciences, making this specification highly relevant to the consumers of social science data.

The Odum Archive, as a member of Data-PASS, also adheres to the Data-PASS Metadata Policies. These policies give detailed information concerning the levels of metadata supported within the Dataverse Network virtual catalog including file level metadata. Once the data are placed in the Dataverse Network, all variable metadata is separated from the primary data file and stored within the network (see Crosas article).

Data Deposit Form: http://www.odum.unc.edu/content/pdf/OdumDepositForm.pdf (accessed 7/29/2013)

Metadata Policies: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=628 (accessed 7/29/2013)

Data-PASS Metadata Policies: http://www.data-pass.org/sites/default/files/metadata.pdf (accessed 7/29/2013)

Crosas, M. (2011). The Dataverse Network®: An open-source application for sharing, discovering and preserving data. D-Lib Magazine, 17(1/2). doi:10.1045/january2011-crosas <a href="http://www.dlib.org/dlib/january11/crosas/01crosas.html">http://www.dlib.org/dlib/january11/crosas/01crosas.html</a> (accessed 7/29/2013)

#### **Reviewer Entry**

Accept

## 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:

The Odum Archive is committed to the long-term preservation of social science resources. The Odum Archive's mission statement can be found within our Digital Preservation Policies. The Odum Archive also promotes its mission through publications, attendance at conferences, and through other professional development activities. For instance, Odum Archive staff recently participated in two conferences focused on topics related to digital archiving (see IASSIST and iDCC posters). The Odum Institute is also an active participant in both national and international organizations that serve to establish standards for best practices and infrastructures for digital archiving. The Institute is a founding member of the Library of Congress National Digital Stewardship Alliance (NDSA), whose mission it is to "establish, maintain, and advance the capacity to preserve our nation's digital resources for the benefit of present and future generations." The Institute is also represented on the board of the International Federation of Data Organizations (IFDO). Comprised of 35 major institutions from around the world, IFDO was established to coordinate international efforts to meet the increasingly advanced needs of the international social science community.

As a member of Data-PASS, the Odum Institute displays its commitment to maintaining its collection through succession planning. If an event occurs which necessitates a successor to manage the Odum Archive collection, the collection would be preserved by partner organizations (see Transfer Protocols in the Data-PASS Articles of Collaboration).

Digital Preservation Policies: <a href="http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=629">http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=629</a> (accessed 7/29/2013)

IASSIST Poster Abstract: http://www.iassist2013.org/program/poster-session/#c160 (accessed 7/29/2013)

 $iDCC\ Poster: \ \underline{http://www.dcc.ac.uk/sites/default/files/documents/idcc13posters/Poster187.pdf}\ (accessed\ 7/29/2013)$ 

Data-PASS Overview: <a href="http://www.data-pass.org/about.jsp#overview">http://www.data-pass.org/about.jsp#overview</a> (accessed 7/29/2013)

Data-PASS Articles of Collaboration (10. Transfer Protocols): <a href="http://www.icpsr.umich.edu/files/DATAPASS/pdf/collaboration.pdf">http://www.icpsr.umich.edu/files/DATAPASS/pdf/collaboration.pdf</a> (accessed 7/29/2013)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

# 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:

The Odum Archive is hosted by the H.W. Odum Institute for Research in Social Science, which falls under the governance of the University of North Carolina at Chapel Hill's Vice Chancellor of Research. Prior to depositing data into the archive, the Odum Archive requires that the data producer completes and signs a Data Deposit Agreement, which states that the data producer has "removed all information directly identifying the research subjects in these data." All users of the Odum Archive Dataverse Network virtual catalog must also agree to its Terms of Use, which includes statements relating to the infringement of copyright and intellectual property and confidentiality of research subjects.

The Odum Archive Data Security Policies describe the laws governing the Archive's handling of datasets containing personally identifiable information (PII) and protected health information (PHI) and the mechanisms in place to mitigate disclosure risks through rigorous data security measures including usage restrictions, policy protections, and technological protections. As part of Data-PASS, the Odum Archive also prescribes to the Data-PASS Data Security and Confidentiality Standards.

As part of the University of the North Carolina at Chapel Hill, the Odum Institute is also bound by University and Administrative Policies as well as the Information Technology Services Information Security Policy, which protects against the disclosure of sensitive information.

Further, the Odum Archive requires all Archive personnel to receive UNC-Chapel Hill's Human Research Ethics training and certification before working with any data producers or performing any data ingests to ensure that Archive staff are equipped with the knowledge necessary to support and enforce the protection of research subjects.

Data Deposit Form: <a href="http://www.odum.unc.edu/content/pdf/OdumDepositForm.pdf">http://www.odum.unc.edu/content/pdf/OdumDepositForm.pdf</a> (accessed 7/29/2013)

Terms of Use: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=574 (accessed 7/29/2013)

Data Security Policies: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=682 (accessed 7/29/2013)

 $Data-PASS\ Data\ Security: \underline{http://www.data-pass.org/sites/default/files/DataSecurity.pdf}\ (accessed\ 7/29/2013)$ 

Data-PASS Confidentiality: http://www.data-pass.org/sites/default/files/confidentiality.pdf (accessed 7/29/2013)

University of North Carolina – Chapel Hill: University and Administrative Policies: <a href="http://policies.unc.edu/">http://policies.unc.edu/</a> (accessed 7/29/2013)

University of North Carolina – Chapel Hill: Information Security Policy: <a href="http://its.unc.edu/files/2012/03/ccm1\_033440.pdf">http://its.unc.edu/files/2012/03/ccm1\_033440.pdf</a> (accessed 7/29/2013)

Training Procedures: <a href="https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/new\_hire.aspx">https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/new\_hire.aspx</a> (internal access only)

### **Reviewer Entry**

 $Accept\ or\ send\ back\ to\ applicant\ for\ modification:$ 

Accept

# 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:

The Odum Archive Digital Preservation Policies describe our organizational infrastructure and preservation framework. As part of the Data-PASS preservation network, Odum Archive's holdings are replicated across the network and stored in geographically distributed sites (see Technology in the Data-PASS Articles of Collaboration). Should Odum Archive content become corrupted or lost, content can be restored by retrieving it from a partner's replicated collection. The Odum Archive also regularly performs a combination of full and incremental backups that are stored locally and off-site.

All content within the Data-PASS shared catalog is monitored by the SafeArchive Audit System, an overlay system that audits preservation policy compliance across the Data-PASS Private LOCKSS (Lots of Copies Keep Stuff Safe) Network (PLN). Any violation that occurs within the preservation network automatically generates a report that identifies the violation, then initiates actions to correct policy non-compliance. Odum's preservation policies, which are documented in an XML schema, require that at least 3 verified copies are stored and maintained by partner organizations located in two distinct geographically distributed locations. The policies also establish minimum host storage requirements of all PLN members (see Odum SafeArchive Audit Schema). SafeArchive also generates scheduled periodic audit and operational reports that provide details on the state of the Private LOCKSS Network.

The Odum Archive also performs periodic reviews to determine when hardware or software should be migrated and to consider the sustainability of new media and formats, and whether the content is susceptible to physical damage (see Data Security Policies).

The Odum Archive repository infrastructure enforces different levels of access to content according to embargo periods, licensing restrictions, and data producer preferences. These levels restrict access to specified groups of authorized users or require users to seek approval prior to accessing content (see Access and Use Policies). For sensitive datasets, the Odum Archive has in place provisions for maintaining data security in accordance with laws and regulations that protect the confidentiality of human subjects.

Digital Preservation Policies: <a href="http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=629">http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=629</a> (accessed 7/29/2013)

Data-PASS Articles of Collaboration (8. Technology): http://www.icpsr.umich.edu/files/DATAPASS/pdf/collaboration.pdf (accessed 7/29/2013)

Odum SafeArchive Audit Schema: <a href="http://www.odum.unc.edu/content/doc/SafeArchive\_AuditSchema.pdf">http://www.odum.unc.edu/content/doc/SafeArchive\_AuditSchema.pdf</a> (accessed 7/29/2013)

SafeArchive How it Works: <a href="http://www.safearchive.org/service">http://www.safearchive.org/service</a> (accessed 7/29/2013)

Data Security Policies: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=682 (accessed 7/29/2013)

Access and Use Policies: <a href="http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=630">http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=630</a> (accessed 7/29/2013)

### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

#### 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:

The Odum Archive's primary techniques to address file format obsolescence is normalization at ingest and migration as described in our Digital Preservation Policies. The Odum Archive ensures the integrity, completeness, and authenticity of data submitted to the archive during the ingest process as outlined in our Appraisal Policies. During the ingest process, non-supported file formats are converted to specified formats that support long-term preservation. The Odum Archive also performs periodic reviews to determine if and when data migration is necessary.

As part of Data-PASS, the Odum Archive has in place a succession plan that proffers stewardship of the Odum Archive catalog to a partner institution should the Archive no longer have the capacity to sustain its catalog.

Digital Preservation Policies: <a href="http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=629">http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=629</a> (accessed 7/29/2013)

Appraisal Policies: <a href="http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=627">http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=627</a> (accessed 7/29/2013)

Data-PASS Articles of Collaboration (10. Transfer Protocols): <a href="http://www.icpsr.umich.edu/files/DATAPASS/pdf/collaboration.pdf">http://www.icpsr.umich.edu/files/DATAPASS/pdf/collaboration.pdf</a> (accessed 7/29/2013)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

#### 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:

The procedures followed during appraisal and processing are detailed in the Odum Archive's Appraisal Policies. Internal procedures for depositing data and cataloging best practices are also maintained on the Odum wiki. These internal procedures reflect OAIS workflow components and detail how and where to store the Submission Information Package (SIP) and how to convert the SIP into the Archival Information Package (AIP). These procedures also explain metadata best practices and include other suggestions for inputting metadata into the Dataverse Network virtual catalog.

Appraisal Policies: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=627 (accessed 7/29/2013)

Data Deposit Procedures: <a href="https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/data\_deposit.aspx">https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/data\_deposit.aspx</a> (internal access only)

CD Deposit Procedures: <a href="https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/cd\_deposit.aspx">https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/cd\_deposit.aspx</a> (internal access only)

Data Cataloging Procedures:

https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/data\_catalog.aspx (internal access only)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

Comments:

Just a side remark: I hope you are archiving CD deposits on a different storage medium as well. This is not apparent from the procedural documents.

# 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 data producers must sign a Data Deposit Agreement included within the Data Deposit Form prior to the archiving of data. This document makes clear that the data producer is granting permission to the Odum Archive to re-disseminate and preserve the data. The Agreement also requires that the data producer remove any personally identifiable information from the data and to verify they hold the copyright to the files.

Any individual self-archiving data (i.e., using the Dataverse Network to disseminate data without mediation by Odum Archive staff) within the Dataverse Network is required to comply with the Odum Dataverse Network Terms of Use, which includes statements relating to the infringement of copyright and intellectual property and confidentiality of research subjects. The Data Deposit Agreement and the Odum Dataverse Network Terms of Use grants the Odum Archive legal rights to disseminate the data through the Dataverse Network mechanism.

As the steward of the digital objects, the Odum Archive has in place a crisis management plan that ensures the availability of digital objects supported by the Data-PASS distributed digital preservation network and monitored by the SafeArchive system. This replication network guards against technical and organizational preservation failures. Odum's preservation policies, which are documented in an XML schema, require that at least 3 verified copies are stored and maintained by partner organizations located in two distinct geographically distributed locations.

Data Deposit Form: http://www.odum.unc.edu/content/pdf/OdumDepositForm.pdf (accessed 7/29/2013)

Terms of Use: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=574 (accessed 7/29/2013)

SafeArchive How It Works: <a href="http://www.safearchive.org/service">http://www.safearchive.org/service</a> (accessed 7/29/2013)

Odum SafeArchive Audit Schema: <a href="http://www.odum.unc.edu/content/doc/SafeArchive\_AuditSchema.pdf">http://www.odum.unc.edu/content/doc/SafeArchive\_AuditSchema.pdf</a> (accessed 7/29/2013)

#### **Reviewer Entry**

Accept

# 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:

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

Self-assessment statement:

The Odum Archive Dataverse Network allows users to download content not only in the original file format, but also in a variety of formats used by the social science community including tab delimited, Splus, Stata, and R. The Dataverse Network provides an interface for users to search across the catalog using basic or advanced search functionality. Advanced search allows a user to search across specific metadata fields or apply logic to their search. The Dataverse Network also offers data analysis tools that enable users to create subsets of data and perform basic and advanced analyses within the Dataverse Network interface.

To enhance discoverability of content, the Dataverse Network also supports OAI harvesting; the Odum Archive's content is harvested and replicated by Data-PASS partner repositories using OAI-PMH. Odum Archive content is searchable from within the catalogs of those repositories.

For every dataset stored in the Dataverse Network, a persistent identifier (Handle) and a Universal Numeric Fingerprint (UNF) is automatically generated and included in a formatted data citation along with other requisite elements like author, title, and URI (see Altman & King article). The Dataverse Network also uses Global Handle Registry to register identifiers to ensure that studies resolve to a working URL (see Crosas article).

Dataverse Downloading Study Files Guide: <a href="http://guides.thedata.org/book/view-studies-download-data">http://guides.thedata.org/book/view-studies-download-data</a> (accessed 7/29/2013)

Odum Institute Downloading Data Video Tutorial:

http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=659#data (accessed 7/29/2013)

Dataverse Search Guide: <a href="http://guides.thedata.org/book/search">http://guides.thedata.org/book/search</a> (accessed 7/29/2013)

Odum Institute Basic and Advanced Search Video Tutorials:

http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=659#basic (accessed 7/29/2013)

Dataverse Managing Harvesting Guide: http://guides.thedata.org/book/manage-harvesting (accessed 7/29/2013)

SafeArchive How It Works: http://www.safearchive.org/service (accessed 7/29/2013)

Altman, M., & King, G. (2007). A proposed standard for the scholarly citation of quantitative data. D-Lib Magazine, 13(3/4). Retrieved from http://www.dlib.org/dlib/march07/altman/03altman.html (accessed 7/29/2013)

Crosas, M. (2011). The Dataverse Network®: An open-source application for sharing, discovering and preserving data. D-Lib Magazine, 17(1/2). doi:10.1045/january2011-crosas <a href="http://www.dlib.org/dlib/january11/crosas/01crosas.html">http://www.dlib.org/dlib/january11/crosas/01crosas.html</a> (accessed 7/29/2013)

#### **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:

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

Self-assessment statement:

The Odum Archive ensures the integrity of digital objects through its participation in the Data-PASS Private LOCKSS Network in which content is monitored and repaired as needed. In addition, the SafeArchive system monitors the LOCKSS network to ensure that digital collections are replicated, validated, and up-to-date in compliance with established preservation policies. Within the SafeArchive system, audit trails of network status data, operational reports, and audit reports are produced, which provide historical information on the status of network operations and network adherence to preservation policies.

The DVN also includes a file versioning mechanism that preserves all versions of data uploaded and released within the system; an audit trail displaying each version released within the system and their differences in respect to each version is stored and made available to promote transparency.

LOCKSS How It Works: http://www.lockss.org/about/how-it-works/ (accessed 7/29/2013)

SafeArchive website: <a href="http://www.safearchive.org/">http://www.safearchive.org/</a> (accessed 7/29/2013)

Altman M, Crabtree J. Using the SafeArchive System: TRAC-Based Auditing of LOCKSS. Archiving 2011. Society for Imaging Science and Technology. 2011. <a href="mailto:altman2011-using\_the\_safearchive\_system\_trac-based\_auditing\_of\_lockss.pdf">altman2011-using\_the\_safearchive\_system\_trac-based\_auditing\_of\_lockss.pdf</a> (accessed 7/29/2013)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

#### 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:

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

Self-assessment statement:

The Odum Archive makes clear in the Appraisal Policies that data may be converted to another file format for purposes of digital preservation and to enable the Dataverse Network's value added statistical analysis tools; however, the original Submission Information Package (SIP) is also maintained creating a chain of custody. If the digital object or metadata changes, an audit trail is created by the Dataverse Network's versioning mechanism and the LOCKSS system that reflects these version changes.

The Odum Archive does not perform additional identity checks beyond the solicitation of identity information through the Data Deposit Form and/or the creation of a Dataverse Network user account. The Dataverse Network team is developing improvements to the verification process for data producers and consumers through the implementation of a Shibboleth single sign-on system.

Appraisal Policies: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=627 (accessed 7/29/2013)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

### 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 Odum Archive is committed to following established standards within the field as described in our Digital Preservation Policies. How the Archive's processes and procedures map to OAIS can be found in a paper presented at the International Data Technology Alliance Workshop in July 2009. The Odum Archive's Data Deposit Procedures also outline the transformations that take place as the data move from a Submission Information Package (SIP), are processed and normalized to generate the Archival Information Package (AIP), and are made accessible via the Dataverse Network as part of the Dissemination Information Package (DIP).

Digital Preservation Policies: <a href="http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=629">http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=629</a> (accessed 7/29/2013)

International Data Technology Alliance Workshop Paper: http://www.odum.unc.edu/content/pdf/Odum\_background\_paper\_Final.pdf (accessed 7/29/2013)

Data Deposit Procedures: <a href="https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/data\_deposit.aspx">https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/data\_deposit.aspx</a> (internal access only)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

#### 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:

The Odum Archive maintains Access and Use Policies that detail user requirements and possible restrictions on access. Access restrictions can vary from the requirement of a login, UNC-Chapel Hill affiliation, or access may be restricted to a particular network or computer. Access may also be restricted to designated individuals as part of an authorized group of users. These restrictions are clearly labeled within the Dataverse Network and are enforced by Dataverse Network mechanisms, which disallow restricted file access and download by unauthorized individuals.

Any user of the Odum Archive Dataverse Network must agree to our Terms of Use. These terms address issues related to the redistribution of content and copyright concerns.

Access and Use Policies: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=630 (accessed 7/29/2013)

Terms of Use: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=574 (accessed 7/29/2013)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept

# 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:

Any user of the Odum Archive Dataverse Network must agree to our Terms of Use. These terms address issues related to the redistribution of content and copyright concerns. The Dataverse Network also supports proper attribution through the inclusion of a standardized data citation that appears at the top of the cataloging information page.

As a research data archive, it is also important to inform data consumers about the importance of maintaining confidentiality of human subjects. All Odum Archive employees are required to undergo the University of North Carolina-Chapel Hill's Human Research Ethics Training to ensure Archive staff understand the importance of maintaining the confidentiality of human subjects and engage in practices that protect the confidentiality of human subjects as described in our Data Security Policies and Training Procedures. The Odum Archive also follows the best practices set forth in the Data-PASS Confidentiality and Data Security Policies including the protection of human subjects. These policies comply with applicable federal laws including the Federal Policy for the Protection of Human Subjects (45 CFR 46).

Terms of Use: <a href="http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=574">http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=574</a> (accessed 7/29/2013)

Dataverse Network Data Citation Standard: http://thedata.org/citation/standard (accessed 7/29/2013)

Data Security Policies: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=682 (accessed 7/29/2013)

Training Procedures: <a href="https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/new\_hire.aspx">https://share.unc.edu/sites/irss/SitePages/Archive/Archive\_Procedures/new\_hire.aspx</a> (internal access only)

Data-PASS Confidentiality Policies: <a href="http://www.icpsr.umich.edu/files/DATAPASS/pdf/confidentiality.pdf">http://www.icpsr.umich.edu/files/DATAPASS/pdf/confidentiality.pdf</a> (accessed 7/29/2013)

Data-PASS Data Security Standards: <a href="http://www.icpsr.umich.edu/files/DATAPASS/pdf/DataSecurity.pdf">http://www.icpsr.umich.edu/files/DATAPASS/pdf/DataSecurity.pdf</a> (accessed 7/29/2013)

#### **Reviewer Entry**

Accept or	send back	to applica	ant for m	odification:
riccepror	Berrer bereit	io dippiici	witt joi iii	occijic cirio ii.

Accept

### 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:

Applicable licenses can be found within the Odum Archive Terms of Use. To proceed with any file download, users must agree to the Terms of Use. At the time of this application, the Odum Archive has not been alerted of any breach of the Terms of Use. Potential steps that may be undertaken in the event of a breach are detailed in the Violations section of our Terms of Use.

Terms of Use: http://www.odum.unc.edu/odum/contentSubpage.jsp?nodeid=574 (accessed 7/29/2013)

#### **Reviewer Entry**

Accept or send back to applicant for modification:

Accept