



Implementation of the Data Seal of Approval

The Data Seal of Approval board hereby confirms that the Trusted Digital repository Roper Center for Public Opinion Research 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 April 24, 2015.

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:	Roper Center for Public Opinion Research
Seal Acquiry Date:	Apr. 24, 2015
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:	<ul style="list-style-type: none">• Roper Center for Public Opinion Research
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Assessment

0. Repository Context

Applicant Entry

Self-assessment statement:

The Roper Center for Public Opinion Research is a sustainable domain repository that has been reliably managing and providing access to public opinion data since 1947. The Center, a Delaware non-profit 501(c)(3) corporation, is home to public opinion surveys conducted in the United States and 90 other countries; a searchable online database of over 650,000 individual questions asked in US surveys between 1935 to the present; and 20,000 complete state, U.S., and international datasets [1].

The Roper Center requires Submission Information Packages (SIPs)[i] from data producers engaged in public opinion research that meet the criteria outlined in the Roper Center Acquisition Policy [2]. After deposit, files are normalized and descriptive metadata is documented, including question-level information that is stored and made accessible via the iPOLL Databank. Technical and structural metadata about the files are captured throughout the curation process. Files and their metadata are assembled as Archival Information Packages (AIPs)[ii] for storage and long-term preservation. Data are available to Roper Center members as *Dissemination Information Packages* (DIPs)[iii] through the Roper Center website via direct download and online analysis. The Roper Center's curation workflow is based upon the Open Archival Information System (OAIS) Reference Model [3].

The Roper Center is a member of the Data Preservation Alliance for the Social Sciences (Data-PASS), which is a partnership of organizations dedicated to the preservation of social science research data [4]. Data-PASS partners participate in a shared catalog [5], have developed and implemented a common approach to data preservation, and engage in other collaborative projects that support best practices for research data archives [6]. Data-PASS partners include the Odum Institute Data Archive, the Institute for Quantitative Social Science (IQSS), Harvard University; Inter-university Consortium for Political and Social Research (ICPSR), University of Michigan; The Electronic and Special Media Records Service Division; and The Social Science Data Archive, University of California, Los Angeles [7].

[i] The Submission Information Package (SIP) is what arrives at the repository. It consists of the digital object, plus any descriptive and technical metadata accompanying the digital object and/or any other information the content provider considers relevant. – Harvey, Ross. *Digital Curation a How-to-do-it Manual*. New York: Neal-Schuman, 2010. 41.

[ii] The Archival Information Package (AIP) is produced by taking the SIP and adding to it, if required, further information about the digital object. The added information is either preservation or representation information. Preservation information is required to manage the preservation of the digital objects, and representation information is required to make the digital object intelligible to its designated community. – Harvey, Ross. Digital Curation a How-to-do-it Manual. New York: Neal-Schuman, 2010. 41.

[iii] The Dissemination Information Package (DIP) is produced when a user requests access to an object in the repository. It consists of a copy of the digital object plus any metadata and support systems necessary to retrieve and use the digital object. – Harvey, Ross. Digital Curation a How-to-do-it Manual. New York: Neal-Schuman, 2010. 41.

[1] Roper Center website, About the Center: <http://www.ropercenter.uconn.edu/about-the-center/> (accessed 2015-03-24)

[2] Roper Center website, Acquisition Policy: <http://www.ropercenter.uconn.edu/acquisition-policy/> (accessed 2015-03-24)

[3] Roper Center website, Data
Curation: <http://www.ropercenter.uconn.edu/about-the-center/data-curation/> (accessed 2015-03-24)

[4] About Data-PASS, About the Partners: <http://www.data-pass.org/about.jsp#partners> (accessed 2015-01-27)

[5] Data-PASS Shared Catalog: <http://www.data-pass.org/call.jsp> (accessed 2015-02-02)

[6] Data-PASS Best Practices: <http://www.data-pass.org/best-practices.jsp> (accessed 2015-02-02)

[7] Data-PASS Articles of Collaboration: <http://www.data-pass.org/sites/default/files/collaboration.pdf> (accessed 2014-11-26)

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:

The Roper Center's Acquisition Policy defines accepted sampling design and data collection methodologies allowed for submission [1]. The Center requires that any Submission Information Package (SIP) contain the documentation necessary for appraising the quality of deposited data, e.g., a methodology report, questionnaires, and interviewer instructions [2]. Full disclosure as outlined by the American Association for Public Opinion Research (AAPOR) standard should be provided by all data providers, and will be strongly encouraged by the Center [3]. As data providers sign on to the AAPOR Transparency Initiative and comply with full disclosure, the Roper Center will include that information in the documentation provided to users to enhance their ability to assess the quality of the data. Additionally, the Center requests that published materials and/or citations to publications based on the data be included in the SIP [2].

The Center requires that data producers preparing SIPs complete a Data Deposit Form, which provides the Center with metadata about the substantive and technical characteristics of the study and its files. The form also requires due diligence in preventing respondent identification disclosure. The American Association for Public Opinion Research (AAPOR) is the leading professional organization for public opinion and survey research professionals [4]. Section 1 of AAPOR's Code of Ethics specifically addresses the professional responsibility of data producers in regards to protecting respondents and prospective respondents [5].

By signing the Data Deposit Form, data producers grant the Center permission to modify, transform or remove any information that could be used in the identification of those research subjects [6],[7]. The Center will use reasonable efforts to remove such information, but cannot provide assurance that it will do so in every instance. More information about how the Center enforces compliance with ethical norms related to protecting respondent confidentiality can be found in section 5 of this application.

Data producers also grant the right to archive, re-disseminate, modify, and use all information from these files (data, questionnaires/codebooks, methodology reports, published materials, other supporting documentation, etc.) in Roper Center products and services when they sign the Data Deposit Form [6].

Through AAPOR's Transparency Initiative, data producers are obtaining formal recognition for the disclosure of basic research methods to the research community [8]. The Roper Center supports this initiative and promotes this level of disclosure through publications [9] and participation in conferences [10].

[1] Roper Center website, Acquisition Policy: <http://www.ropercenter.uconn.edu/acquisition-policy/> (accessed 2015-03-24)

[2] Roper Center website, Data Deposit Materials:
<http://www.ropercenter.uconn.edu/polls/deposit-data/#materials> (accessed 2015-03-24)

[3] American Association for Public Opinion Research (AAPOR), AAPOR Transparency Initiative Immediate Disclosure
Items: http://www.aapor.org/AAPORKentico/AAPOR_Main/media/MainSiteFiles/TI_disclosure_items_March2014.pdf
(accessed 2015-02-16)

[4] American Association for Public Opinion Research (AAPOR), About AAPOR: <http://www.aapor.org/AAPORKentico/About-AAPOR.aspx> (accessed 2015-01-23)

[5] American Association for Public Opinion Research (AAPOR) Code of Ethics (currently under revision): <http://www.aapor.org/AAPORKentico/Standards-Ethics/AAPOR-Code-of-Ethics.aspx> (accessed 2015-02-05)

[6] Roper Center website, Data Deposit Form:
<http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/DataDepositForm.pdf> (accessed 2015-04-10)

[7] Data Preservation Alliance for the Social Sciences (Data-PASS) Confidentiality Policies: <http://www.data-pass.org/sites/default/files/confidentiality.pdf> (accessed 2015-01-19)

[8] American Association for Public Opinion Research's (AAPOR's) Transparency Initiative: <http://www.aapor.org/AAPORKentico/Transparency-Initiative.aspx> (accessed 2015-01-23)

[9] Roper Center website, Staff Bibliography-Selected Publications, "Methodological Disclosure Issues and Opinion Data":

<http://www.ropercenter.uconn.edu/about-the-center/staff/staff-bibliography/#maynard-timmsferrara-disclosure-paper> (accessed 2015-03-24)

[10] Roper Center website, Staff Bibliography-Selected Posters, "Disclosure, Citation, and Reuse":
<http://www.ropercenter.uconn.edu/about-the-center/staff/staff-bibliography/#maynard-timmsferrara-disclosure-poster> (accessed 2015-03-24)

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:

Data producers are provided a full list of recommended data formats on the Center's website [1] and on the Data Deposit Form [2]. The Center's preferred data formats include ASCII, PASW/SPSS, SAS, and/or STATA. Upon submission, a virus scan is performed on each file, files are compared to the study file manifest (if provided by the data depositors), and each file is opened in its designated software and checked for operability. Files are also assigned a baseline checksum during this stage (see section 6 and 11 for further details). Data depositors will be contacted if concerns arise during this process and may be required to resubmit file(s).

The Roper Center does acquire data formats outside of its preferred list on occasion in accordance with the Center's Acquisition Policy [3]. These files are generally categorized as being at-risk in the public opinion and survey research fields. Some non-preferred formats, such as multi-punched column binary, are migrated to preferred formats and normalized for long-term preservation. When the Roper Center obtains non-preferred file formats that fall outside of the staff's expertise, the Center will seek professionals outside of the organization with specific knowledge of those formats to perform recovery and migratory operations. All versions of files are stored in archival storage and preserved at the bit-level.

The Roper Center's Digital Preservation Policy [4] informs all of the Center's stakeholders, including data depositors, of the various approaches employed to ensure sustainable access to and preservation of acquired materials over time. The Policy addresses areas of organizational viability, technological and procedural suitability, systems administration and security, and procedural accountability that enable the continued success of the Center's digital preservation program.

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[1] Roper Center website, Data Deposit
Materials: <http://www.ropercenter.uconn.edu/polls/deposit-data/#materials> (accessed 2015-03-24)

[2] Roper Center website, Data Deposit Form:
<http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/DataDepositForm.pdf> (accessed 2015-04-10)

[3] Roper Center website, Acquisition Policy-Risk of Data Loss:
<http://www.ropercenter.uconn.edu/acquisition-policy/> (accessed 2015-03-24)

[4] Roper Center website, Digital Preservation
Policy: <http://www.ropercenter.uconn.edu/digital-preservation-policy/> (accessed 2015-04-02)

Reviewer Entry

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Accept

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Comments:

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 producers, generally, submit the required Data Documentation Initiative (DDI) compliant metadata by using the Roper Center's Data Deposit Form [1]. Each Submission Information Package (SIP), including the deposit form, is reviewed by trained Roper Center staff for completeness and accuracy, (though the Center cannot provide assurance that such review will be completely effective in all instances). If the data producer submits problematic files or insufficient metadata, Center staff will contact the data producer directly about these problems and/or conduct research using outside sources to obtain the missing metadata. All Data Preservation Alliance for the Social Sciences (Data-PASS) members adhere to explicit metadata requirements [2].

[1] Roper Center website, Data Deposit Form: <http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/DataDepositForm.pdf> (accessed 2015-04-10)

[2] Data-Pass Metadata Requirements: <http://www.data-pass.org/sites/default/files/metadata.pdf> (accessed 2015-01-09)

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:

The Roper Center's mission is to collect, preserve, and disseminate public opinion data; to serve as a resource to help improve the practice of survey research; and to broaden the understanding of public opinion through the informed use of survey data in the United States and abroad. The Center is committed to assuring the Center's data producers and user base that the largest collection of polling and survey interview data in the world will be preserved and made accessible for the long-term. The Roper Center's mission statement is released under the authority of the Roper Center Board of Directors [1].

The Roper Center's commitment to data preservation is formalized in the Center's Digital Preservation Policy [2], implemented throughout data processing procedures [3], and through the Center's participation in national digital preservation consortia, including the Data Preservation Alliance for the Social Sciences (Data-PASS) and the National Digital Stewardship Alliance [4], [5]. The Roper Center promotes its mission, collection, and services to many communities in a variety of ways. Staff participates in exhibits and presentations at conferences and professional association meetings like the American Association for Public Opinion Research (AAPOR) Annual Conference and the Annual Meeting of the International Association for Social Science Information and Technology (IASSIST). The Center also produces publications for academic, trade, and general audiences [6], [7], [8].

As a member of Data-PASS, the Roper Center demonstrates its commitment to preserving its collection through succession planning. If an event occurs which necessitates a transfer of responsibility for managing Roper Center holdings, the Center has taken reasonable steps to ensure that the collection would be preserved by partner organizations [9].

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[1] Roper Center website, About the Center: <http://www.ropercenter.uconn.edu/about-the-center/> (accessed 2015-03-24)

[2] Roper Center website, Digital Preservation Policy: <http://www.ropercenter.uconn.edu/digital-preservation-policy/> (accessed 2015-03-24)

[3] Roper Center website, Data Curation-Processing: <http://www.ropercenter.uconn.edu/about-the-center/data-curation/#processing> (accessed 2015-03-24)

[4] Data-PASS website, About Data-PASS: <http://www.data-pass.org/about.jsp#partners> (accessed 2015-01-27)

[5] Library of Congress website, National Digital Stewardship Alliance Members: <http://www.digitalpreservation.gov/nds/memberslist.html> (accessed 2015-01-29)

[6] Roper Center website, Staff Bibliography:
<http://www.ropercenter.uconn.edu/about-the-center/staff/staff-bibliography/> (accessed 2015-03-24)

[7] Roper Center website, Issue Briefs: <http://www.ropercenter.uconn.edu/issue-briefs/> (accessed 2015-03-24)

[8] Roper Center website, Infographics:
<http://www.ropercenter.uconn.edu/category/data-bites/infographics/> (accessed 2015-03-24)

[9] Data-PASS Articles of Collaboration-10. Transfer Protocols:
<http://www.icpsr.umich.edu/files/DATAPASS/pdf/collaboration.pdf> (access 11/26/2014)

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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:

Data producers are required to remove all information directly identifying research subjects before depositing Submission Information Packages (SIPs). They are requested to complete a Data Deposit Form, which specifically gives the Roper Center permission to modify, transform or remove any information that could be used in the identification of those research subjects [1].

All SIPs are moved to permanent storage upon arrival, and only staff with specific security permissions has access to them. During the processing lifecycle, Roper Center staff will review all materials to ensure the protection of research subjects [2]. During this review, staff specifically trained in disclosure methods will use reasonable efforts to identify any item(s) that may directly or indirectly compromise the confidentiality of a research subject. When an item(s) is identified, staff will employ the following practices: de-identification, statistical disclosure control, and/or usage restriction [3]. The Center's Digital Preservation Policy states that the Center cannot guarantee that such efforts will be 100% effective, and disclaims all warranties, expressed or implied, with respect to the protection of respondent confidentiality [4]. These item(s) and all disclosure practices employed are logged and stored within permanent storage. Archival Information Packages (AIPs) and Dissemination Information Packages (DIPs) are stored in separate areas in accordance with our security procedures.

The Roper Center has restricted-use studies within its collection. These studies require special permission to access them. Researchers must complete an application detailing their research objectives, specific use cases of these restricted variables, time period of their use, and a data protection plan [5], [6]. Applications are reviewed by the Executive Director of the Roper Center and access to restricted studies is only given to approved applications.

The Roper Center provides access to their holdings through memberships. Each membership institution is required to complete a contract detailing the responsibilities of each party and that must be signed by a duly authorized institutional official [7]. Individual users must also agree to a standard Terms and Conditions contract to access all services through the Roper Center website [8]. These agreements, both institutional and individual, describe the practices and techniques used to ensure the confidentiality of research subjects.

[1] Roper Center website, Data Deposit

Form: <http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/DataDepositForm.pdf> (accessed 2015-04-10)

[2] Roper Center website, Data Curation-Processing:

<http://www.ropercenter.uconn.edu/about-the-center/data-curation/#processing> (accessed 2015-03-24)

[3] Data Preservation Alliance for the Social Sciences (Data-PASS) Confidentiality

Policies: <http://www.data-pass.org/sites/default/files/confidentiality.pdf> (accessed 2015-01-19)

[4] Roper Center website, Digital Preservation Policy-Technological and Procedural

Suitability: <http://www.ropercenter.uconn.edu/digital-preservation-policy/> (accessed 2015-03-24)

[5] Roper Center website, Application to Access the National Election Pool Exit Poll Raw Data File(s):
<http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/ExitPollApplication.pdf> (accessed 2015-04-10)

[6] Roper Center website, Restricted Use Data from the Social Capital Community Benchmark Survey:
<http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/Confidentiality-Agreement-Seguarol.pdf> (accessed 2015-04-10)

[7] Roper Center website, Membership Agreement:
<http://www.ropercenter.uconn.edu/membership-agreement/> (accessed 2015-03-24)

[8] Roper Center website, Terms and Conditions:
<http://www.ropercenter.uconn.edu/terms-and-conditions/> (accessed 2015-03-24)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

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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 Roper Center has a Digital Preservation Policy in place that formalizes the Center's organizational commitment to ensuring sustainable access to materials the Center acquires through the development and evolution of a comprehensive digital preservation program. The Digital Preservation Policy informs and guides all data storage processes and procedures [1].

The Roper Center infrastructure supports core preservation and access services to support its preservation mission. The Center applies documented processes to help ensure the proper storage of data, though no assurance can be made that such efforts will be completely effective. Central to these procedures is the maintenance and monitoring of multiple copies and backups for both access and preservation. Primary data storage is maintained by the Roper Center as a limited-access write-able filesystem. Additionally, multiple external synchronized copies of the entire repository are updated and maintained for access by public facing applications and data users.

The Center employs failover and redundancy strategies to help ensure data, database, web, and other repository resources could be recovered in the event of data or infrastructure loss [2]. Backups of digital assets and associated metadata are kept on physically distributed storage arrays. Physical distribution is for redundancy and disaster recovery which requires a failover option. Back-up procedures and recovery of files are described as part of internal workflow documentation available to system administrators and archive management. There can, however, be no assurance that such measures will be completely effective.

Data centers housing Roper Center servers are secured and in a restricted area; only authorized personnel are allowed access.

As outlined in the Center's Digital Preservation Policy, strategic and operational risks are continually explored and potential gaps analyzed to ensure that the center continues to meet its repository and data preservation responsibilities. Hardware and storage media is proactively monitored for degradation and rotated out of circulation upon error detection and/or based upon life expectancy [3].

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Checksum verification is performed and compared to a baseline fingerprint on a routine schedule to ensure the integrity of all digital assets [4]. Original baseline checksums, initial date, last date of comparison and resulting status are stored in the metadata database along with other item level attributes [4].

[1] Roper Center website, Digital Preservation

Policy: <http://www.ropercenter.uconn.edu/digital-preservation-policy/> (accessed 2015-03-24)

[2] Roper Center website, Digital Preservation Policy-Systems Administration and Security:

<http://webdev.ropercenter.uconn.edu/digital-preservation-policy/#systems> (accessed 2015-04-08)

[3] Roper Center website, Digital Preservation Policy-Procedural

Accountability: <http://webdev.ropercenter.uconn.edu/digital-preservation-policy/#procedural> (accessed 2015-04-08)

[4] Roper Center website, Data Curation-Processing:
<http://www.ropercenter.uconn.edu/about-the-center/data-curation/#processing> (accessed 2015-03-24)

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:

The Roper Center's Digital Preservation Policy informs and supports the Center's planning for the long-term preservation of digital assets [1]. The policy formalizes the Center's commitment to addressing the challenges of changing technology and user needs [1]. Specifically, the Technological and Procedural Suitability section defines normalization and migration procedures as the primary strategies to address the challenges of file format obsolescence [1], [2]. Additionally, file format obsolescence monitoring is a component of the Data Preservation Alliance for the Social Sciences (Data-PASS) technology responsiveness program whose purpose is to ensure the integrity and availability of social science research data [3].

A central priority of the Center's Digital Preservation Policy is that any actions necessary to ensure the long-term usability of acquired data are incorporated throughout the curatorial workflow [1]. The Center uses reasonable efforts to fulfill this objective by employing robust, interoperable metadata management strategies that help to ensure that data will be provided to users while remaining readable, meaningful, and independently understandable in perpetuity [2]. No assurance can be made, however, that such measures will be completely effective.

The Center's participation in the Data-PASS consortium helps to ensure the long-term preservation of digital assets even in a case where the Center is no longer able to retain archived material [4].

[1] Roper Center website, Digital Preservation Policy:
<http://www.ropercenter.uconn.edu/digital-preservation-policy/> (accessed 2015-03-24)

[2] Roper Center website, Data Curation-Processing:
<http://www.ropercenter.uconn.edu/about-the-center/data-curation/#processing> (accessed 2015-03-24)

[3] Data-PASS Data Security Standards: Integrity and
Availability: <http://www.data-pass.org/sites/default/files/DataSecurity.pdf> (accessed 2014-11-26)

[4] Data-PASS Articles of Collaboration-10. Transfer
Protocols: <http://www.icpsr.umich.edu/files/DATAPASS/pdf/collaboration.pdf> (accessed 2014-11-26)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments:

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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:

Roper Center's data curation program is aligned with the Open Archival Information System (OAIS) Reference Model [1]. The Center's processing workflow describes the sequence of actions that occur from submission of materials (Submission Information Packages--SIP) to their distribution (*Dissemination Information Packages--DIP*) including all movements to archival storage (Archival Information Package--AIP) [2].

The Center's archives staff creates and maintains detailed instructions about all practices and procedures that occur during each phase of processing throughout the data life cycle. The instructions are available to all Roper Center staff members through the Center's internal wiki. The Roper Center also provides similar instructional material for outside users through its website including basic file format migrations [3], [4].

A conceptualized overview of the data life cycle, processing workflows and its phases is available for data producers, academics, and other researchers on the Roper Center's website 1, [5]. This informs our various stakeholders of the effort incurred to enhance studies with meaningful information, making them as complete as possible, usable, and independently understandable for future researchers [5].

The Roper Center staff has extensive training in social science data management, metadata standards, and archival practices through academic degrees and on-going professional development including both internal and external training [6].

[1] Roper Center website, Data Curation:
<http://www.ropercenter.uconn.edu/about-the-center/data-curation/> (accessed 2015-03-24)

[2] Roper Center website, Processing Workflow Diagram
<http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/01/complete-workflow.png> (accessed on 2015-03-24)

[3] Roper Center website, Bring ASCII Data File into
SPSS: <http://www.ropercenter.uconn.edu/support/ascii-data-into-spss/> (accessed on 2015-03-24)

[4] Roper Center website, Bring ASCII Data File into
Stata: <http://www.ropercenter.uconn.edu/support/ascii-data-into-stata/> (accessed on 2015-03-24)

[5] Roper Center website, Data Curation-Processing:
<http://www.ropercenter.uconn.edu/about-the-center/data-curation/#processing> (accessed 2015-03-24)

[6] Roper Center website, Roper Staff: <http://www.ropercenter.uconn.edu/about-the-center/staff/> (accessed on 2015-03-24)

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:

The Data Deposit Form, which we ask data producers to submit as a part of Submission Information Packages (SIPs), grants the Roper Center the right to archive and re-disseminate archived data [1]. By signing this form, data producers allow these rights in accordance with the Center's standard Terms and Conditions, which includes statements regarding respondent confidentiality, copyright, and prohibited activities [2]. Original source copyright is maintained by individual survey organizations.

Demonstrating its commitment to best practices in data stewardship, the Center has disaster management strategies in place to help ensure that all archived digital objects remain accessible to members in the event of a crisis or emergency. The Center participates in the Data Preservation Alliance for the Social Sciences (Data-PASS), which employs succession planning to ensure the long-term preservation and accessibility of all Data-PASS holdings [3]. Additionally, the Center ensures redundancy of data and database, repository, and web resources maintained in several locations and across mirrored storage arrays [4]. The Roper Center maintains instructions on how to rebuild all of these resources on its internal wiki. There can, however, be no assurance that such measures will be completely effective.

[1] Roper Center website, Data Deposit Form:

<http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/DataDepositForm.pdf> (accessed 2015-04-10)

[2] Roper Center website, Terms and Conditions:
<http://www.ropercenter.uconn.edu/terms-and-conditions/> (accessed 2015-03-24)

[3] Data-PASS Articles of Collaboration-10. Transfer
Protocols: <http://www.icpsr.umich.edu/files/DATAPASS/pdf/collaboration.pdf> (accessed 2014-11-26)

[4] Roper Center website, Digital Preservation Policy-Systems Administration and Security:
<http://webdev.ropercenter.uconn.edu/digital-preservation-policy/#systems> (accessed 2015-04-08)

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:

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

Self-assessment statement:

The Roper Center's *RoperExpress* service provides online access to the Center's digital data files in ASCII and SPSS formats. Also available for download is all relevant documentation with questionnaires, codebooks, and methodological reports. Users can search dataset catalog records by keyword, interview dates, country, organization, and type of sample using the *RoperExpress* search interface [1], and they can discover datasets by searching question text using the iPOLL Databank [2]. The Roper Center also offers data analysis capabilities that allow users to run crosstabs on datasets within the Roper Center interface using the Survey Documentation and Analysis (SDA) engine [3], [4].

In addition to providing search interfaces to encourage data discovery, the Roper Center provides users the opportunity to subscribe to Rich Site Summary (RSS) feeds and the Roper Center Data Dive newsletter, both of which provide updates about new data acquisitions and featured collections [5], [6]. The Center's webinars, tutorials, and classroom resources also support the discovery and use of data [7], [8], [9], [10].

All datasets, files, and questions archived at the Roper Center are assigned unique identifiers. The Roper Center is currently exploring approaches to assigning Digital Object Identifiers (DOIs) for all study-level metadata records. The Center's website provides guidance on citation practices for all material in the Center's holdings [11].

[1] Roper Center website, *RoperExpress*: <http://www.ropercenter.uconn.edu/roperexpress/> (accessed 2015-03-24)

[2] Roper Center website, iPOLL: <http://www.ropercenter.uconn.edu/ipoll-database/> (accessed 2015-03-24)

[3] Roper Center website, Roper*Explorer*:
<http://www.ropercenter.uconn.edu/online-analysis-roperexplorer/> (accessed 2015-03-24)

[4] SDA: Survey Documentation and Analysis: <http://sda.berkeley.edu/> (accessed 2015-01-28)

[5] Roper Center website, Roper Center RSS Feeds: <http://www.ropercenter.uconn.edu/rss-feeds/> (accessed 2015-04-08)

[6] MailChimp Data Dive Campaign:
<http://us9.campaign-archive2.com/home/?u=ea9256b7a791e31cc2bbb1275&id=9bebe5d445> (accessed 2015-03-24)

[7] Roper Center website, iPOLL Support: <http://www.ropercenter.uconn.edu/ipoll-support/> (accessed 2015-03-24)

[8] Roper Center website, Data Support: <http://www.ropercenter.uconn.edu/data-support/> (accessed 2015-03-24)

[9] Roper Center website, Roper*Explorer*
Support: <http://www.ropercenter.uconn.edu/roperexplorer-support/> (accessed 2015-03-24)

[10] Roper Center website, Classroom Materials:
<http://www.ropercenter.uconn.edu/support/classroom-materials/> (accessed 2015-03-24)

[11] Roper Center website, How to Cite Roper Center
Data: <http://www.ropercenter.uconn.edu/how-to-cite-roper-center-data/> (accessed 2015-03-24)

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 Roper Center runs Secure Hash Algorithm-1 (SHA-1) checksums on all files in archival storage upon ingest. Checksums are stored and backed up, and they are linked persistently to the files to which they refer. The integrity of data and metadata is monitored with routine runs of checksum utilities that confirm the integrity of deposited content and help to ensure the completeness of the collection [1].

The Roper Center has implemented a version control protocol based at the study level. Each Submission Information Package (SIP) at ingest is moved into archival storage and is assigned a baseline level version designation. Any modifications to an existing file and/or files created during a processing event will constitute an incremental version number increase. These processing events may include file migration, normalization, digitization of analog materials, corrections, and/or any value-added metadata/file modifications. Each study level version is stored in archival storage 1, [2]. The Roper Center provides web access only to the most recent study version and its associated files through *RoperExpress* [3], [4]. The Roper Center is currently investigating the use of file level version control strategies.

[1] Roper Center website, Data Curation-Processing:
<http://www.ropercenter.uconn.edu/about-the-center/data-curation/#processing> (accessed 2015-03-24)

[2] Roper Center website, Digital Preservation Policy-Technological and Procedural Suitability: <http://webdev.ropercenter.uconn.edu/digital-preservation-policy/#tech-suit> (accessed 2015-04-08)

Data Seal of Approval Board

W www.datasealofapproval.org

E info@datasealofapproval.org

[3] Roper Center website, RoperExpress: <http://www.ropercenter.uconn.edu/roperexpress/> (accessed 2015-03-24)

[4] Roper Center website, Study Level Version Control:
<http://www.ropercenter.uconn.edu/versioncontrol/> (accessed 2015-03-24)

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:

After the Roper Center receives a Submission Information Package (SIP), data and all accompanying material are assessed with regard to content, structure, and format. The Center maintains un-altered SIPs in their original formats in archival storage and assigns a “version 1” designation to each. Version numbers are incremented after files are processed and thereafter should any changes or replacements be made to the files [1]. Any changes or corrections made to the data during processing are documented in a text file, which helps to ensure that the file(s) can be reverted to their original version at any time.

Metadata that documents the provenance of each deposit, such as intellectual property and methodological information, is captured, maintained, and stored in the descriptive metadata that is included in each Archival Information Package (AIP) [2].

The Roper Center does not check the identity of depositors beyond the solicitation of identity information through the Data Deposit Form [3]. Should a need arise for implementing provisions for verifying depositor identity, the Roper Center will respond accordingly.

[1] Roper Center website, Study Level Version Control:
<http://www.ropercenter.uconn.edu/versioncontrol/> (accessed 2015-03-24)

[2] Roper Center website, Data Curation-Processing:
<http://www.ropercenter.uconn.edu/about-the-center/data-curation/#processing> (accessed 2015-03-24)

[3] Roper Center website, Data Deposit Form:
<http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/DataDepositForm.pdf> (accessed 2015-04-10)

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:

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

Self-assessment statement:

The Roper Center is committed to reviewing, contributing to, and adopting digital curation best practices and standards as they emerge. As part of a review of infrastructure, staffing and workflows in 2012, a self-evaluation against the Open Archival Information System (OAIS) reference model indicated the Roper Center's curation workflow and practices are in general alignment with OAIS in all material respects [1]. As a result of the 2012 Review and Redesign of Roper Center Infrastructure project [2] and follow up work, the Center has established infrastructure development and technology as a high priority. Further, the Roper Center is developing and transitioning to a Data Curation System (DCS) that will explicitly align curation functions with OAIS [3].

A particular area that the Roper Center is involved outside of the OAIS model is pre-ingest activities. The development of DCS pre-ingest modules to support data acquisition efforts, data provider relationships, agreements and permissions is on-going. Through this self-evaluation the Producer-Archive Interface Methodology Abstract Standard (PAIMAS) [4] has been uncovered and will be further investigated to support DCS development.

The technological infrastructure is adequate for current practices and will be continually enhanced to incorporate elements that will ensure explicit adherence to archival standards [2].

The Roper Center uses the Data Documentation Initiative specification (DDI-C) as a model for metadata coverage and structure. Though metadata is not stored in the form, a crosswalk from the Roper Center metadata repository to DDI has been in place for the past decade.

[1] Roper Center website, Data Curation:
<http://www.ropercenter.uconn.edu/about-the-center/data-curation/> (accessed 2015-03-24)

[2] Roper Center website, Project Overview: A Review and Redesign of Roper Center Infrastructure:
<http://www.ropercenter.uconn.edu/project-overview-a-review-and-redesign-of-roper-center-infrastructure/> (accessed 2015-03-24)

[3] Elise Dunham and Cindy Teixeira. "A Review and Redesign of Roper Center Infrastructure." Presented at the Annual Meeting of the International Association for Social Science Information Service and Technology, Toronto, Canada, June 2014: http://www.library.yorku.ca/binaries/iassist2014/7X/2014_7X_Dunham.pptx (accessed 2015-02-03)

[4] Consultative Committee for Space Data Systems website, Producer-Archive Interface Methodology Abstract Standard: <http://public.ccsds.org/publications/archive/651x0m1.pdf> (accessed 2015-02-03)

[5] Marc Maynard and Hui Wang. "Implementation of the DDI at the Roper Center." Presented at the Annual Meeting of the International Association for Social Science Information Service and Technology, Ottawa, Canada, May 2003: http://www.iassistdata.org/downloads/2003/d2_maynard.pdf (accessed 2015-02-20)

Reviewer Entry

Data Seal of Approval Board

W www.datasealofapproval.org

E info@datasealofapproval.org

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:

The Roper Center's Membership Agreement and the End-User Terms and Conditions, both binding contracts, specify the terms by which all membership organizations and users must abide in order to use Roper Center services, including the explicit prohibition of re-dissemination of data [1], [2]. The Membership Agreement outlines the role and responsibility that the institution has in assisting the Roper Center in identifying and stopping a breach to the End-User Terms and Conditions. Because the Roper Center is a membership-based service, IP or username and password authentication is required for access to Roper Center holdings. Additional access restrictions are in place for some collections; these are clearly communicated on the Roper Center website [3], [4].

Roper Center users are required to affirm their agreement to the Terms and Conditions when they create online accounts required to access holdings. Also, the Terms and Conditions are accessible on each page of the Roper Center's website. The Consequences of Unacceptable Use section addresses the measures in place for any breach of the Terms and Conditions contract [2].

[1] Roper Center website, Membership Agreement:
<http://www.ropercenter.uconn.edu/membership-agreement/> (accessed 2015-03-24)

[2] Roper Center website, Terms and Conditions:
<http://www.ropercenter.uconn.edu/terms-and-conditions/> (accessed 2015-03-24)

[3] Roper Center website, Application to Access the National Election Pool Exit Poll Raw Data File(s): <http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/ExitPollApplication.pdf> (accessed 2015-04-10)

[4] Roper Center website, Restricted Use Data from the Social Capital Community Benchmark Survey: <http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/Confidentiality-Agreement-Seguaro1.pdf> (accessed 2015-04-10)

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:

All Roper Center membership organizations and users of Roper Center services must agree to the Roper Center End-User Terms and Conditions. These terms address issues related to the redistribution of content, citation, and copyright concerns. The Consequences of Unacceptable Use section addresses the measures in place for any breach of the Terms and Conditions contract [1].

As a research data archive, it is important to inform data consumers about the importance of maintaining confidentiality of human subjects. The Respondent Confidentiality section of the Terms and Conditions document addresses this issue explicitly [1]. Additionally, all Roper Center staff with responsibilities in data management are trained in issues of confidentiality and learn to implement practices that protect the confidentiality of human subjects. The Roper Center follows the best practices set forth in the Data Preservation Alliance for the Social Sciences (Data-PASS) Confidentiality and Data Security Policies, which comply with federal laws including the Federal Policy for the Protection of Human Subjects (45 CFR 46) [2]. The Center's Digital Preservation Policy states that the Center cannot guarantee that such efforts will be 100% effective and disclaims all warranties, expressed or implied, with respect to the protection of respondent confidentiality [3].

Specific restricted collections require an application process in which end users are required to secure official institutional signatures from their home institution indicating acceptance of the integrity of the research effort prior to submitting the application to the Center [4], [5].

[1] Roper Center website, Terms and Conditions:

<http://www.ropercenter.uconn.edu/terms-and-conditions/> (accessed 2015-03-24)

[2] Data-PASS Confidentiality Policies: <http://www.icpsr.umich.edu/files/DATAPASS/pdf/confidentiality.pdf> (accessed 2014-11-26)

[3] Roper Center website, Digital Preservation Policy-Technological and Procedural Suitability: <http://www.ropercenter.uconn.edu/digital-preservation-policy/> (accessed 2015-03-24)

[4] Roper Center website, Application to Access the National Election Pool Exit Poll Raw Data
File(s): <http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/ExitPollApplication.pdf> (accessed 2015-04-10)

[5] Roper Center website, Restricted Use Data from the Social Capital Community Benchmark
Survey: <http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/Confidentiality-Agreement-Seguro1.pdf> (accessed 2015-04-10)

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:

The dissemination of public opinion research data for the purposes of secondary analysis and re-use is central to the Roper Center's mission. However, legal regulations and respect for the needs and requirements of data producers make it necessary to manage access according to principles outlined in our Terms and Conditions [1] and the applications/agreements associated with the Center's restricted data collections [2], [3]. All Roper Center member organizations are required to sign the Membership Agreement [4] which includes as an appendix, the End-User Terms and Conditions. Both documents clearly depict activities that are permitted and those that are unacceptable. Individual users of Roper Center services must agree to the Roper Center End-User Terms and Conditions, and any user seeking access to restricted collections must complete an application detailing their research objectives, specific use cases of these restricted variables, time period of their use, and a data protection plan. Applications are reviewed by the Executive Director of the Roper Center and only approved applications are given access to restricted studies. Measures in place for any breach of the Terms and Conditions and the additional limits associated with the use of restricted collections licenses are outlined in each of the license documents.

[1] Roper Center website, Terms and Conditions:

<http://www.ropercenter.uconn.edu/terms-and-conditions/> (accessed 2015-03-24)

[2] Roper Center website, Application to Access the National Election Pool Exit Poll Raw Data

File(s): <http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/ExitPollApplication.pdf> (accessed

2015-04-10)

[3] Roper Center website, Restricted Use Data from the Social Capital Community Benchmark Survey: <http://www.ropercenter.uconn.edu/wp/wp-content/uploads/2015/04/Confidentiality-Agreement-Seguro1.pdf> (accessed 2015-04-10)

[4] Roper Center website, Membership Agreement: <http://www.ropercenter.uconn.edu/membership-agreement/> (accessed 2015-03-24)

Reviewer Entry

Accept or send back to applicant for modification:

Accept

Comments: