

# Illinois Data Bank Preservation Policy

## Purpose of this Policy

This document outlines the Illinois Data Bank plan for responsible and sustainable stewardship of published Datasets. The development of a reliable digital archive that adheres to, and remains compliant with, the standards expounded in the Illinois Data Bank Policies remains the best mechanism to support the access of University of Illinois at Urbana-Champaign research data.

## Preservation Objectives

The Illinois Data Bank's current objectives are to provide preservation of and access to published research data for a minimum of five years after the date of publication in the Illinois Data Bank.

The Illinois Data Bank reserves the right to review Datasets five years after their initial publication date to determine whether to retain or Deaccession the Data File(s) and/or Metadata File(s). In certain cases of retention, preservation review decisions may also trigger preservation actions to ensure the ongoing usability of Data Files and/or Metadata Files.

The Illinois Data Bank currently plans to retain Descriptive Metadata persistently for all Datasets deposited in the Illinois Data Bank regardless of the Disposition of Data File(s) and/or Metadata File(s), but the Illinois Data Bank reserves the right to a shorter retention period for Descriptive Metadata, but not shorter than the planned retention period, which is currently at five years. Details regarding the process for determining whether to retain Datasets beyond the five-year commitment period can be found in the [Illinois Data Bank Preservation Review, Revision, Retention, Deaccession, and Withdrawal Procedure](#) and the [Preservation Review Guidelines](#).

The Illinois Data Bank shall:

- Provide or participate in a reliable preservation environment for published Datasets, where at least one of the Creators is affiliated with the University of Illinois at Urbana-Champaign, such as its faculty, academic staff, and graduate students.
- Provide reliable and consistent access to published Datasets available through the service to Depositors, the larger research community, and the public according to the Illinois Data Bank policies.

## Operating Principles

The Illinois Data Bank shall adhere to the following operating principles:

- Endeavor to model services after the Open Archival Information System (OAIS) Reference Model (<http://public.ccsds.org/publications/archive/650x0m2.pdf>) for the long-term preservation and access of digital collections whenever possible.
- Strive for compliance with emerging international standards for managing a reliable digital repository infrastructure.

- Adhere to prevailing community standards for preserving access to Datasets whenever possible.
- Participate in the development and implementation of standards.
- Commit to an interoperable, scalable digital archive with appropriate storage management for Datasets.
- Create policies, procedures, and practices that are clearly documented and consistent.
- Strive to maintain hardware, software, and storage media containing archival content in keeping with prevailing best practices.
- Strive to establish procedures that meet archival requirements, such as clearly documenting and maintaining provenance, chain of custody, authenticity, and integrity of Datasets.
- Comply with intellectual property, copyright, and ownership rights for all content.

### **Roles and Responsibilities**

Development and management of preservation and access for the Illinois Data Bank is accomplished through the collaborative efforts of units at the University Library working in accessioning, curation, information technology, and systems administration capacities. These groups further work with the Office of the Vice Chancellor of Research, the National Center for Supercomputing Applications, and other groups as necessary to provide adequate managerial and infrastructure commitments to sustain the Illinois Data Bank. The Illinois Data Bank's preservation infrastructure is managed by the Library and its Medusa digital preservation repository (see below).

### **Preservation Strategies**

Datasets deposited in the Illinois Data Bank utilize the back-end storage and management services within Medusa, the University of Illinois at Urbana-Champaign Library's digital preservation repository (<https://medusa.library.illinois.edu/>). Medusa provides a common storage and management infrastructure for digital collections of enduring value to the University. At present, Medusa's collecting focus is on digitized and "born digital" books, manuscripts, photographs, audiovisual materials, scholarly publications, and research data from the Library's special collections, general collections, and institutional repositories. The University Library manages Medusa storage in partnership with the National Center for Supercomputing Applications. Additional information about Digital Repository Medusa can be found at the Medusa's FAQs page (<https://wiki.cites.illinois.edu/wiki/display/LibraryDigitalPreservation/Medusa+FAQ>).

As is practical and necessary, preservation procedures may also include transformation of Data Files and/or Metadata Files into more stable formats and/or migration to successive formats. In the event one or more Data Files and/or Metadata Files in a Dataset are made available in a converted format, Research Data Service staff will document the conversion in the Dataset's associated Descriptive Metadata and/or Metadata File(s).

### **Addressing Challenges**

The Illinois Data Bank plans to address the challenges facing digital repositories as follows:

- **Technological Change:** By developing a sustainable digital preservation model that will respond to technological changes as needed without under- or over-estimating the costs imposed by these changes.
- **Sustainability:** By developing a sustainable digital preservation model that will deal with the technical and management challenges of preserving digital content within the constraints of available funding.
- **Defining Preservation Needs:** By providing a thoughtful balance among many factors including access, functionality, and preservation, while being mindful that preservation is critical to enabling long-term access and use.
- **Ongoing Monitoring of Submitted Material Types and Formats:** By monitoring different needs of the deposited materials (e.g., storage size, file format usability) as different types of materials are deposited and maintaining procedures and guidance based on these needs as necessary.

### Financial Sustainability

The University of Illinois at Urbana-Champaign makes a financial commitment toward the sustainable preservation of published Datasets through funding of the Research Data Service.

### Technological Sustainability, Security, and Disaster Recovery

The University Library is committed to sustaining an effective digital preservation infrastructure for its digital collections, which includes the adequate provisioning of appropriate technologies. Planning for this infrastructure occurs within the Library's Repository group, in conjunction with Research Data Service staff. To minimize service interruption and content loss due to technical failure, the system is designed to eliminate single points of failure by providing redundant server components and replication; however, the Illinois Data Bank service is provided "as is."

- **Replication of Repository Content:** Datasets deposited into the Illinois Data Bank are stored in a high-performance, clustered file system on a National Center for Supercomputing Applications storage service and replicated to a separate storage system across campus.
- **Geographical Redundancy:** To minimize loss due to catastrophic hardware failure or natural disaster, all repository content is regularly backed up to remote storage to ensure geographic redundancy and disaster recovery.
- **High Availability:** The Library's repository services are designed to quickly recover from the failure of some of its components and to continue working to a level of satisfaction in the presence of hardware or software failure.

### Acknowledgements

Illinois Digital Environment for Access to Learning and Scholarship (IDEALS). *IDEALS Digital Preservation Policy*. <http://hdl.handle.net/2142/2383>

Data Repository for the U of M (DRUM). *DRUM Policies and Terms of Use, Preservation Policy*. <https://conservancy.umn.edu/pages/drum/policies/>

Roper Center for Public Opinion Research. *Roper Center for Public Opinion Research Digital Preservation Policy*. <https://web.archive.org/web/20160504194518/http://ropercenter.cornell.edu/digital-preservation-policy/>

Inter-university Consortium for Political and Social Research (ICPSR). *ICPSR Digital Preservation Policy Framework*. <https://web.archive.org/web/20160408020354/http://www.icpsr.umich.edu/icpsrweb/content/datamanagement/preservation/policies/dpp-framework.html>

Purdue University Research Repository (PURR). *PURR Digital Preservation Policy*. <https://web.archive.org/web/20150914005748/https://purr.purdue.edu/legal/digitalpreservation>

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[Contact Research Data Service staff](#) with questions or to request an addition or revision to this policy.

Policy Document History and Version Control Table			
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