

Trusted Digital Repositories, Certification

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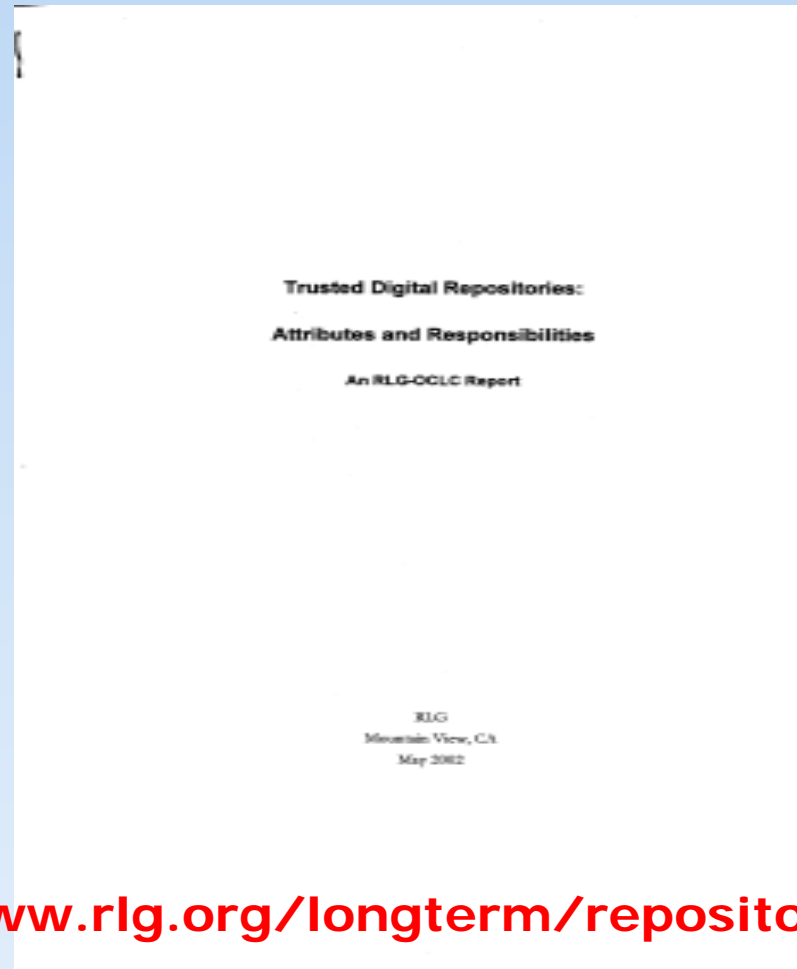
Definition: trusted digital repository

„A trusted repository is one whose mission is to provide reliable, long-term access to managed digital resources to its designated community, now and in the future.“

„...framework of attributes and responsibilities for trusted repositories...”

(RLG-Group, May 2002)

Requirements for deposit systems



<http://www.rlg.org/longterm/repositories.pdf>

Establishing trust: mayor issues

- How cultural institutions earn the trust of their designated communities?
- How cultural institutions trust third-party providers?
- How users trust the documents provided to them by a repository?

Attributes of a Trusted Digital Repository

- Compliance with the OAIS Model
- Administrative responsibility
- Organizational viability
- Financial sustainability
- Technological and procedural suitability
- System security
- Procedural accountability

Responsibilities of a Trusted Digital Repository I

- Acquisition
 - Scope of collections
 - Preservation and lifecycle management
 - Range of stakeholders
 - Ownership / legal issues
 - Cost implications

Responsibilities of a Trusted Digital Repository II

- Operational responsibilities, e.g.
 - appropriate information from content providers
 - sufficient control of the information
 - access methods
 - authentication and integrity control
 - support

Recommendations I (general)

- Creation of a network / union of trusted digital repositories
- Framework / process to support the certification of digital repositories
- Models for cooperative repository networks and services

Recommendations II (specific)

- Tools to identify the attributes of digital materials that must be preserved
- Persistent identification of digital objects (expressly long-term preservation)
- Relationship between digital preservation and intellectual property rights
- Technical strategies for continuing access to digital media
- Minimal-level metadata set to manage digital information for the long term
- Automatical generation / extraction of metadata

DINI – Certificate

As an Example for Certification of Institutional Repositories in Germany, Austria etc.

Could work as a basis for trusted digital repositories?

--- Potential criteria are marked with "*"

Deutsche Initiative für NetzwerkInformation

DINI – www.dini.de

(German Initiative for Networked Information)

- Coalition of German Infrastructure- or Service-Institutions:
 - Libraries
 - Computing Centres
 - Media Centres
 - Learned Societies

DINI-Certificate

1. Policy
2. Author Support
3. Legal Aspects
4. Authenticity and Integrity
5. Indexing
 - Subject Indexing
 - Export of Metadata
 - Interfaces
6. Logs and Statistics
7. Long-term Availability



[http://www.dini.de/zertifikat/
dini_certificate.pdf](http://www.dini.de/zertifikat/dini_certificate.pdf)



1. **Policy

- Statements to content
- Statements to functional and technical quality
- A guarantee to archive for defined time
- Definition of services that the operator of the document repository offers to authors and editors



2. Author support

Minimum standard

- Offer consultancy services and support via web pages; e-mail, telephone
- Support of the entire publication process

DINI-recommendations:

- Curriculum of courses
- Specialized courses on "structured writing" for authors

3. **Legal Aspects

The operator of the repository must be permitted:

- to publish the uploaded document onto the repository
- to forward the document to an archiving institution
- to alter the documents technically to secure long-term availability
- ...





4. * * Authenticity and Integrity

Minimum technical standards for **servers**

- Documentation of the technical system
- Back-up system to secure repository
- Technically controlled and verifiable acceptance of documents

DINI-recommendations

- SSL certification



4. **Authenticity and Integrity

Minimum standards for **documents**

- Persistent Identifier
- A document with altered content must be treated as a new document
- Archiving of authors uploaded file in their original format

DINI-recommendations

- Advanced digital signature

5. Indexing / Subject indexing

- Minimum standards
 - Availability of a defined policy for indexing
 - Verbal indexing with keywords or classificatory indexing
- DINI-OAI-recommendations
 - At least one additional standardized system
 - Keywords in English
 - Abstracts in German and English



5. **Indexing / Export of Metadata

- Minimum standards
 - Metadata are available for free
 - Unqualified Dublin Core
- DINI-recommendations
 - Qualified Dublin Core
 - Technical and/or archival metadata
 - ...



5. **Indexing / Interfaces

- Minimum standards
 - User interface to the web repository
 - OAI PMH 2.0
- DINI-recommendations
 - Expansion to allow for exchange of complex metadata schemata
 - Web-service interface (e.g. SOAP)
 - Z 39.50





6. Logs and Statistics

- Minimum standards
 - Every individual repository must (within legal boundaries) log statistical data on access to the repository and to individual publications
- DINI-recommendation
 - The log containing data on access to a publication should be added to the publication as dynamic metadata



7. **Long-term Availability

- Minimum standards:
 - Persistent linking of metadata and documents, e.g. via a persistent identifier or storage of metadata and document in container(s)
 - Definition within the policy of a minimum time span of availability of a document of (no less than five years)
- DINI-recommendations:
 - Securing long-term availability where necessary through cooperation with a archiving institution

Summary

- Minimal set of defined criteria for trusted repositories?
- Via certification more acceptance (e.g. decision maker, funding agencies etc.)?
- International network of trusted repositories?
- Registry for trusted repositories?
- Exchange of content/metadata between repositories, redundancy?
- ...



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**Thank you very much
for your attention**

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