

# *10 Core Requirements For Trustworthy Digital Archives*

Susanne Dobratz and Astrid Schoger  
on behalf of the nestor-WG  
„Trusted Repositories – Certification“

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# Quality Control for Digital Object Collections







## DINI/DRIVER

### Institutional repository

-  Open access
-  Quality of Service
-  Visibility
-  Interoperability
-  Usage of Standards

## nestor/TRAC/ DRAMBORA/BoF

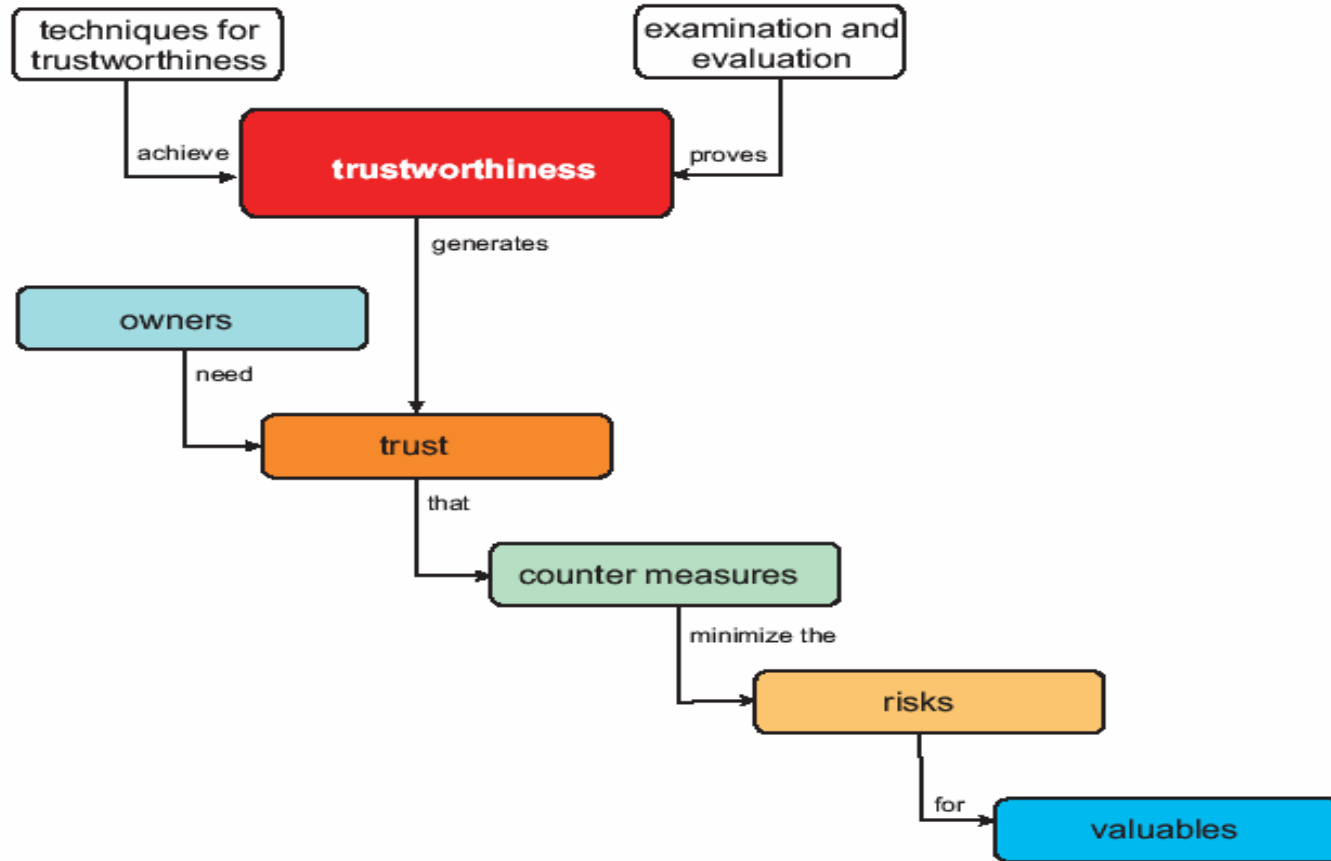
**Digital archives** in  
libraries, museums,  
archives, data  
centres...

-  Long term  
preservation
-  Trustworthiness
-  Criteria Catalogues
-  Risk Management

# *Thrustworthiness*

- Digital archives aim at ensuring integrity, authenticity, confidentiality, availability and understandability of digital objects
- Risks: aging of storage media, obsolescence of system and application software, changes in organisational infrastructure, budget cuts, malicious or erroneous human actions, ...
- Archives require organisational and technical provisions
- Challenge:
  - How can the preservation of the values be guaranteed?
  - How can we measure the success of digital archives?

# Trustworthiness



Trustworthiness as a risk management method derived from „Common Criteria for Information Technology Security Evaluation“

# *Trustworthiness*

- System operates according to its objectives and specifications
- Assessed and demonstrated on the basis of a criteria catalogue

(RFC 2828, Internet Security Glossary)

# Recent Research



- Report: Trusted Repositories: Attributes and Responsibilities (2002)
- Audit and Certification Criteria:
  - TRAC (2005/2007)
  - nestor-Catalogue (2006)
- Core Requirements, Common Principles (2007)
- Auditing Tools: DRAMBORA (2007)
- ISO standardisation effort



Democracy Starts Here.



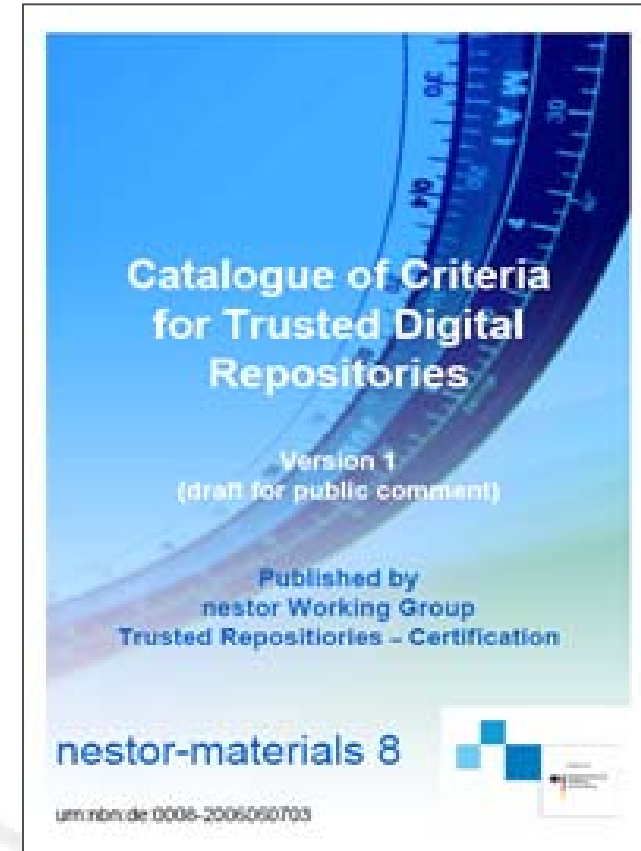
DRAMBORA

# *nestor-Catalogue*

## Audience:

- cultural heritage organisations: archives, libraries, museums
- service providers, software developers, third party vendors

## Guidance for planning, set-up, self-evaluation



# nestor-Catalogue

## Structure

- Formal:

Criterion
General explanation of the criterion
Examples, comments, notes from different application areas, with no claim to exhaustiveness
<i>Literature related to this criterion</i>

- Content:

- A. Organisational Framework
- B. Object Management
- C. Infrastructure and Security

## *Future Goals*

- Formal certification process
  - Based on internationally standardised criteria (ISO, EU/DIN)
  - But taking into account national conditions

A successful international program of auditing and certification of trustworthy archives requires community consensus rather than competing strategies for audit and certification

# Core Requirements for Digital Archives



*10 common principles  
demonstrating trustworthiness:*



1. Commitment to digital object maintenance
2. Organisational fitness
3. Legal & contractual rights
4. Effective & efficient policies
5. Acquisition & ingest criteria

# *Core Requirements for Digital Archives*

nestor



6. Integrity, authenticity & usability
7. Provenance
8. Dissemination
9. Preservation planning & action
10. Adequate technical infrastructure

# Core Requirements for Digital Archives



## Mapping: 10 core requirements, nestor, TRAC

- 2. organisational fitness (including financial, staffing structure, and processes) = nestor A.4, TRAC A2 + A4
- 3. legal and contractual rights = nestor A.3, TRAC A5
- 9. preservation planning and action = nestor B.8, TRAC B3

# Core Requirements for Digital Archives



## Usage:

- DRAMBORA
- nestor catalogue, 2nd version (to be published soon)
- BoF, basic document
- Framework for the application for the Digital Preservation Award 2007

## Further Work

- Collaboration:
  - Sharing results, reviewing of outputs
  - Ongoing pilot audits
  - Practical experiences with auditing and certification
  - Common trainings/workshops on building trust
  - Standardisation of audit criteria: ISO BoF group



# References

- Trustworthy Repositories Audit & Certification (TRAC) Criteria and Checklist
  - <http://www.crl.edu/PDF/trac.pdf>
- nestor Catalogue of Criteria for Trusted Digital Repositories
  - <http://www.nbn-resolving.de?urn:nbn:de:0008-2006060703>
- DCC/DPE Digital Repository Audit Method Based on Risk Assessment (DRAMBORA)
  - <http://www.repositoryaudit.eu/download>
- Ten core requirements of digital preservation repositories
  - <http://www.crl.edu/content.asp?l1=13&l2=58&l3=162&l4=92>

*Thank you for your attention!*

## *Contacts:*

■ Dr. Astrid Schoger  
Bavarian State Library Munich  
astrid.schoger@bsb-muenchen.de

■ Susanne Dobratz  
Humboldt University Berlin  
dobratz@cms.hu-berlin.de

- nestor WG Trusted Repositories –Certification  
[http://nestor.cms.hu-berlin.de/moinwiki/WG\\_Trusted\\_Repositories\\_-\\_Certification](http://nestor.cms.hu-berlin.de/moinwiki/WG_Trusted_Repositories_-_Certification)

■ Credits to Andrew McHugh, DCC  
Presentation to the Digital Preservation Award Judging Panel