

The Next Step - Establishing a Long-Term Preservation Infrastructure for Science and Research: the nestor2 approach

Beijing, iPRES 2007, October 11

Reinhard Altenhöner, r.altenhoener@d-nb.de Deutsche Nationalbibliothek, Frankfurt am Main







Topics

- 1. What is the Network of Expertise nestor?
- 2. nestor2 for whom?
- 3. New challenges for nestor: The example "Grid/eScience and Preservation"







What is nestor?

Network of expertise

- → Center of competence in Germany in digital Long-Term preservation (digital curation)
- → Information platform for all activities in German speaking countries (DE, AT, CH)
- → Liaison with international developments, projects
- → Expert database
- **→**









The Mission of nestor

nestor•*

Kompetenznetzwerk Langzeitarchivierung



nestor network

- Home
- About nestor
- Supplies
- Speeches & Workshops
- Workspace
- Glossary

Information

- > Subject Gateway
- > Who Where What
- **♦** What's new
- Calendar
 Calendar

Welcome to nestor - Network of Expertise in Long-Term Storage of Digital Resources

The project's objective is to create a network of expertise in long-term storage of digital resources for Germany. As the perspective of current and future archive users is central to the project, the emphasis is put on long-term accessibility. Within the project the following offers will be created: a web-based information forum, a platform for information and communication, criteria for trusted digital repositories, recommendations for certification procedures of digital repositories, recommendations for collecting guidelines and selection criteria of digital resources to be archived, guidelines and policies, the concept for a permanent organisation form of the network of expertise in digital preservation. The long-term goal is a permanent distributed infrastructure for long-term preservation and long-term accessability of digital resources in Germany comparable e.g. to the Digital Preservation Coalition in the UK.

Memorandum on the long-term accessibility of digital information in Germany

nestor - Network of Expertise in Long-Term Storage of Digital Resources" has published a memorandum to effect a future oriented and promising framework for the preservation of the digital cultural heritage in Germany.

ORIGINAL GERMAN VERSION ---> ENGLISH VERSION ---> DUTCH VERSION

X Calendar

DPE, PLANETS, and CASPAR Second Annual Conference: Progress towards Addressing Digital Preservation Challenges

From 2007-09-05 to 2007-09-06 in Lisbon, Portugal

IASA-BAAC
Conference - Building
an Archive for the
Future

From 2007-09-15 to 2007-09-20 in Riga, Latvia

11th European Conference on

GEFUNDENI VOM







Timeline

- 1995: First approaches of DFG
- 2002: Constitution of an initial group in BMBF (Federal Ministry of Education and Research)
- July 2003: Creation of nestor with six partner institutions. Subproject of BMBF-project "New Services, Standardisation, Metadata"
- End of 2004: Information platform with experts, profile database, news, newsletter, etc.
- Broad field of cooperation: science, libraries, archives, museums, data centers, training centers
- 2005: Entry of Bundesarchiv (Federal Archive)
- 01.07.2006: Start of 2nd project phase, project durance until 2009







Financial Support ca. 1.500.000 €













S M B Institut für Museumsforschung Libraries

University, IT-faculty

Archives

Museums

GEFÖRDERT VOM





Sto



Rationale for nestor

- Raises the profile of Digital Preservation
- Runs advocacy campaign which targets stakeholders:
 - → Owners and Creators of digital resources; Funding bodies
- Provides examples of Good Practice
- Highlights where gaps and priorities for action and responsibility are
- Acts as catalyst for Action
 - → Builds partnerships, disseminating information; maintaining current awareness, develops projects
- Prepares a durable form of organisation
 - → "association", "network", "shelter/harbor" ???







Topics

- 1. What is the Network of Expertise nestor?
- 2. nestor2 for whom?
- 3. New challenges: The example "Grid/eScience and Preservation"





Sto O C

Target groups of nestor

Publishing/Media

Data Services

Museums

Education

Cross-Sectoral
Membership

Government Research & policy

Archives

Libraries

Science & Technology







Activities of nestor

- Training nestor Spring/Winter School, cooperation with training centers, seminars of the Bundesarchiv, collaboration in DPE
- Research standardized delivery of electronic objects to the Archiv (Ingest), Grid-Technologie and Long-Term preservation, collaboration in EU-projects, e.g. PLANETS, CASPAR, PARSE, SHAMAN
- Certification Catalogue of Criteria for Trusted Repositories; Catalogue of Criteria for Pls, collaboration with DIN and ISO
- Tools / Workflow collection, overview ongoing activities
- Current Awareness "What's New in Digital Preservation" from PADI/DPC
- → Currently about 30 institutions in six workgroups Further cooperation is necessary in all areas







Policy: "Memorandum on the Long-Term accessibility of digital information"

- Task of national interest
- Public funding
- Agreement of responsibilities
- Recommendation of a durable form of organisation
- Responsible choice of objects
- Consideration of all kinds of objects
- Consistent access to analogue and digital information
- Comprehension of digitisation activities
- Preference of non-proprietary formats
- Intensification of standardisation activities
- Professionalisation







Topics

- 1. What is the Network of Expertise nestor?
- 2. nestor2 for whom?
- 3. New challenges: The example "Grid/eScience and Preservation"







Grid is a Journey . . .

Old World Static Silo **Physical** Manual

Application



New World

Dynamic

Shared

Virtual

Automated

Service

Reference: Gentzsch, D-Grid and its Impact on Science & Industry in Germany", Mai 2006











Global Grid Community

















Particle

English Version

DEGRID





















Grid Solution for Wide Are Computing and Data Handli













openlab for DataGrid applications Developing Solutions for the Data-Intensive Science of the Large Hadron Collider







Grid Consortium Japan





超高速コンピュータ網形成プロジェクト National Research Grid Initiative

Grid Applications

Grid Middleware

-Networking





国立情報学研究所グリッド研究開発推進拠点 NII -The National Institute of Informatics

Reference: Gentzsch, D-Grid and its Impact on Science & Industry in Germany" Mai 2006



What is GRID/eScience?

- Computer- and Storage capacity
 - → virtual knowledge environments with comprehensive datasets, visualisation and scientific information
- Technical integration
 - Connection of various players, services, ressources and methods
- Networking of people
 - → support of workflows, communication and knowledge transfer





100

"layers" of Grid

Scientific Communities, Institutions

Discipline specific tools and services

Discipline comprehensive tools and infrastructure

Visualised hardware resources

Content







Long-Term Preservation needs GRID/eScience

- Grid-Technology is the latest developed information technology
- 2. With Grid-Technology, huge data volumes can be handled
- 3. Tools, Services etc. are increasingly integrated in Grid environment (e.g. Fedora, Editions-Tools)

Grid/eScience needs Long-Term Preservation

- Scientific data volumes have to be preserved in Gridenvironments, too
- 2. Experiences in this area (Workflows, Ingest ...) derive from the long term preservation-community









What does nestor contribute? (1)

Surveys

- 1. Raw data: "Long-Term preservation meets e-Science in the field of scientific raw data", GeoForschungszentrum Potsdam, Dr. Jens Klump
- 2. Standards: "Standards and Standardisation in the context of Grid-Technology and Long-Term preservation", Universität der Bundeswehr München, Prof. Dr. Uwe M. Borghoff
- 3. Synergies: "Synergy potential between GRID/eScience Technologies for Long-Term preservation", Fernuniversität Hagen, Prof. Dr. Wolfram Schiffmann







What does nestor contribute? (2)

WG LZA/GRID: Survey coordination, consolidation of results and verbalisation of further needs

- Definition of Testbeds
- Arrangement of events for and of both Communities (e.g. GES-Workshop)
- Observation of international developments
- formulation of a Roadmap for consolidation of Grid and Long-Term preservation / Grid and archival systems







Thank you for your attention. Any questions?

www.digitalpreservation.de

r.altenhoener@d-nb.de



