



STANDARDS AND POLICIES FOR TRUSTED DIGITAL REPOSITORIES – ERA Research and Development

Partnerships in Innovation II: From Vision to Reality and Beyond

7 October 2008

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ERA Research
National Archives and Records Administration



ERA Program History

- 1970s First electronic records transferred to NARA
- 1998 **NARA is heading for mission failure**
- 1998 **ERA Research Begins**
- 2000 **ERA becomes an Official Program**



ERA Program History

- **1998** **ERA Research Begins**
 - Understand the Issues
 - Feasibility
 - Relevant Technologies



ERA Program History

- **2000** ERA becomes an Official Program
- **2003** ERA Requirements Issued
 - <http://www.archives.gov/era/pdf/requirements-amend0001.pdf>
 - Based on ERA Research
 - Some Standards Referenced
 - OAIS
 - DoD 5015.2



NARA Involvement

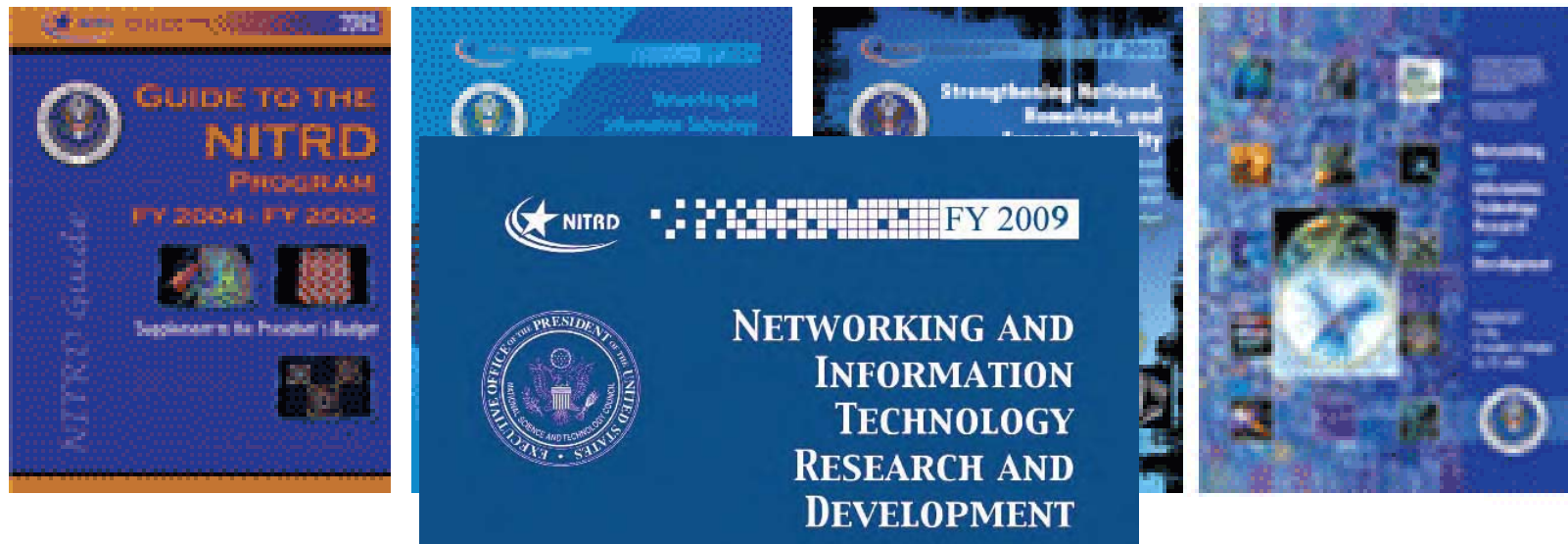
- OAIS ISO 14721:2003
- DoD 5015.2
- Trustworthy Repositories Audit & Certification: Criteria and Checklist (TRAC)



ERA Program History

- **2008** ERA IOC
- **2008** - ERA Research Continues
 - No one knows how to preserve and provide sustained access to authentic electronic records for most types of electronic records
 - No one knows what information technology will be in the future

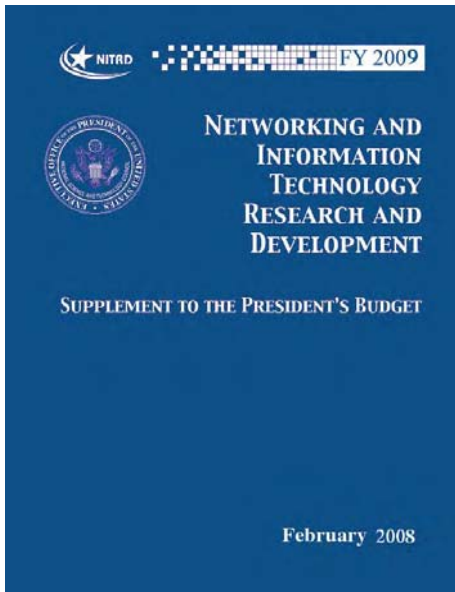
ERA Research Program



“Next-generation methods, technologies, and tools are needed to...manage massive stores of distributed, heterogeneous information (e.g., science and engineering research data, **Federal records**, health information).

February 2008

7 October 2008



Human Computer Interaction and Information Management (HCI&IM)

NITRD Agencies: NSF, DARPA, OSD and DoD Service research organizations, NIH, NASA, NIST, AHRQ, NOAA, EPA, [NARA](#)

President's 2009 Request

Strategic Priorities Underlying This Request

Today's increasingly data-centric world requires the effective and strategic use of information assets. To advance the role of HCI&IM in providing strategic support for national priorities, R&D in this area focuses on:

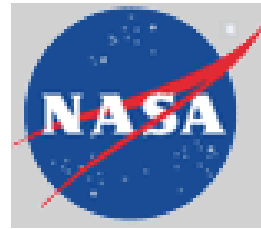
Information integration: To support complex human ideas, analysis, and timely decision-making, large amounts of disparate forms of raw information must be managed, assimilated, and accessible in formats responsive to the user needs. Next-generation methods, technologies, and tools are needed to fully integrate and efficiently manage massive stores of distributed, heterogeneous information (e.g., science and engineering research data, [Federal records](#), health information)

Key research issues include:

- **Information standards:** Data interoperability and integration of distributed data; usability; [provenance and integrity](#) (metadata); generalizable ontologies; accessibility
- **Decision support:** Timeliness of and access to data; user-oriented techniques and tools for [summarization](#), synthesis, analysis, and visualization of information for decision-making; measurement and management of human responses to data
- **Information management (IM):** [Intelligent rule-based data management](#), efficient integration, maintenance, and access to complex, large-scale collections of heterogeneous data; innovative systems architecture; [scalable technologies](#); [integration of policies](#) ([differential sensitivity](#), security, user authentication) with data; [integrated distributed data repositories](#); [testbeds](#); sustainability and validation of complex models

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Some examples of ERA Research *Partnerships*



Data-Intensive Cyber
Environments (DICE)
Group



National
Science
Foundation



*Army Research
Laboratory*



National Coordination Office for
Networking and Information Technology
Research and Development



Thank you.



For more information:
<http://www.archives.gov/era/>

7 October 2008