Preserving Things that Count: exploring partnerships among domain specific repositories, institutional repositories, and social science researchers

iPRES 2006
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ICPSR
Inter-university Consortium for Political and Social Research
Overview

• Characterize the parallel life cycles of social science research and social science data
• Describe key elements of two different kinds of repositories
• Recommend how researchers and the two different kinds of repositories can forge partnerships to support long term access to social science data

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What’s the trouble in the story?  
part one

• Data are being lost – from personal websites, hard drives, thumb drives, learning management systems, survey production systems, email attachments.

• Data archiving requirements are not being met; support and guidelines are not in the hands of researchers.

• Data documentation is not being produced at critical moments; undocumented or poorly documented datasets are useless.

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What’s the trouble in the story? part two

• “Self-archiving” is at the heart of most e-print Institutional Repositories, yet self-archiving of data is problematic:
  – Incomplete and non-standard documentation
  – Proprietary file formats (e.g. SPSS, Stata, SAS)
  – Issues of confidentiality and disclosure avoidance may block data sharing, even though public datasets could be created
  – Most preservation oriented lifecycle models begin at the Acquisition stage. We propose a lifecycle model that starts at the beginning of the research life cycle.

• Repositories are not synchronized; decades of domain expertise are not being tapped

• Narrow institution focus and branding of digital assets can run counter to research activities that cross institutional boundaries

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The Social Science Research Life Cycle

I: Discovery & Planning
II: Initial Data Collection
III: Final Data Preparation & Analysis
IV: Publication & Sharing
V: Long-term Management

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DDI Social Science Data Life Cycle Model

Figure 3: Combined Life Cycle Model
Life cycle of the Tick and significance of Hosts

The relative size of the animals approximates their significance as hosts for the different tick life cycle stages in a typical woodland habitat.

Courtesy of Dr Jeremy Gray and Bernard Kaye
Social Science Research Processes, Research Actions, and Data Life Cycle Stages

Data Life Cycle Stages
- Data Discovery
- Data Creation, Collection and Repurposing
- Data Processing
- Data Analysis
- Data Distribution

Research processes
- Build the Research agenda
- Acquire evidence and research materials
- Analyze evidence and research materials
- Communicate and publish results

Research actions
- Review Evaluate
- Search Acquire Create Access
- Analyze Visualize Replicate Reformat Repurpose
- Disseminate Share Link Cite

Data Archiving

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Domain Support
throughout the research life cycle

• Services provided by domain experts:
  – Knowledge of how particular datasets fit into the overall domain knowledge base
  – Data documentation: standards and production
  – Methods of disclosure avoidance, privacy and security
  – Support for discovery and reuse of data

• In the social science domain, this network is connected internationally through IASSIST and IFDO, in Canada through CAPDU, and in Europe through CESSDA

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Institution-based digital repositories

Collect, manage, and maintain the intellectual output of an institution. Focus primarily on text and images; eprints model. Acquire content through ‘self archiving’ mechanisms.

Strengths:
• Local contacts and support services
• Open access goals
• Recent attention brings funding and staff resources – great progress made
• Preservation commitment may be strong, but varies across institutions

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Domain-specific digital repositories

Types:

- Data libraries in single institutions
  - Acquire and manage data to support the research and learning activities of the institution
  - Extensive support services in locating, evaluating, and using data
- Topical data archives and government based data archives
  - CPANDA, American Religion Archive, NARA, etc.
- Social Science data archives
  - ICPSR, Roper Center, Odum Institute, Murray Center, etc.

Strengths:

- Knowledge of content, file types, migration and emulation strategies, research requirements, analytical techniques
- Preservation commitment is as important as access
- Support services well established; network of professionals
- Commitment to supporting the quality of social science research; active at national and international levels of funding, infrastructure planning, and dataset production
- Training and community building across institutions, faculty, graduate students, other archives
- Not controlled by local agendas
Seeking partnerships in the repository landscape

This approach envisions both cooperation and specialization.

• The researcher produces the scientific product, both data and publications;
• the institutional repository has specialized knowledge of campus conditions and the opportunity to interact frequently with the researcher;
• the domain-specific repository has specialized knowledge of approaches to data in a specific scientific field, for example domain-specific metadata standards, as well as the ability to give high-impact exposure to research products.

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I

Discovery & Planning

Community

Existing data

Researcher

Existing data

Existing data

Procedures for preserving and sharing data

Institutional Repository

Domain Repository

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III
Final Data Preparation & Analysis

Community

Researcher

Institutional Repository

Domain Repository

Detailed procedures and assistance for preparing archive-ready data and metadata

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IV
Publication & Sharing

Community

Researcher

Institutional Repository

Domain Repository

Final archive-ready data and metadata

- Federated searching
- Redundant storage
- Other shared services

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Long-term Management

Community

Re cher

Institutional Repository

Domain Repository

Final data and metadata

Domain-specific tools and standards for curation and preservation

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Further information:

UMich Deep Blue preprint:
“Building Partnerships Among Social Science Researchers, Institution-based Repositories and Domain Specific Data Archives”
http://hdl.handle.net/2027.42/41214
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