Preservation Strategy Proposals for Licensed Resources of CSDL
国家科学数字图书馆
第三方数字资源长期保存政策建议

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Preservation Strategy Proposals for Licensed Resources of CSDL

1. Introduction

2. Current status for d-resources

3. Preservation policy needs

4. Suggested policies

5. Current actions & issues
1. Introduction

- **Chinese National Science Digital Library (CSDL)**
  - Serving
    - 80+ research institutions in 20+ cities
    - Researchers/students in basic sciences and hi-tech fields
  - Providing
    - A collaborative digital resource system
    - An integrated digital service platform
    - A cooperative information service system
  - Project Implementation
    - From 2001-2005, with plans to extend to 2010
    - Jointly developed by the central lib, 4 regional libs, 80+ institutional libs, and other partners
1. Introduction

- Chinese National Science Digital Library (CSDL)

Basic Architecture

- Institutional Portal
- Subject Portal
- CSDL Portal
- Service Portal
- Third-party Portal

- Integrated Browsing
- Federated Search
- Union Catalogs
- OAI Harvesting
- MyLib Service
- ILL/DDL

- Access-Control
- Open-linking
- Open-KOS

Distributed Digital Resources
1. Introduction

- Chinese National Science Digital Library (CSDL)
  - Digital Resource Development
    - Licensed Full-text Databases
      - Journals, books, reference works, dissertations, etc.
    - Licensed A/I Databases
      - Journals, conferences, patents, dissertations, citations, etc.
    - Self-developed Full-text Databases
      - Special digital resources, CAS dissertations, etc.
    - Self-developed A/I Databases
      - Chinese Scientific Literature Abstracts and Citations systems
      - Union Catalogs, etc.
    - Subject Portals with their resource navigation systems
Preservation Strategy Proposals for Licensed Resources of CSDL

1. Introduction
2. Current status for d-resources
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5. Current actions & issues
2. Current Status of Licensed Digital Resource in CSDL

（1）Licensed digital resources

<table>
<thead>
<tr>
<th>Type of database</th>
<th>Number of database</th>
<th>Number of Titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-text e-journal non-Chinese</td>
<td>10</td>
<td>about 3000</td>
</tr>
<tr>
<td>Full-text e-journal in Chinese</td>
<td>1</td>
<td>over 9000</td>
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<tr>
<td>E-book or E-dissertation non-Chinese</td>
<td>4</td>
<td>about 50000</td>
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<td>E-book in Chinese</td>
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<tr>
<td>Factual databases</td>
<td>3</td>
<td>Over 900 volumes</td>
</tr>
<tr>
<td>Reference databases (abstracts and index)</td>
<td>11</td>
<td></td>
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</tbody>
</table>
2. Current Status of Licensed Digital Resource in CSDL

（2）Access arrangements

- Local CAS mirror sites
- Remote Chinese mirror sites
- Remote third-party mirror sites, in the country or outside, contracted by the content providers
- Remote host sites operated by the content providers
2. Current Status of Licensed Digital Resource in CSDL

（3）Challenges to sustainable access

To most licensed resources CSDL only purchases the right of access (with some promises about “sustainable access”)

When the contract expires, CSDL’s rights to the purchased resources are not reliably guaranteed and supported

- Outright unable to access, extra payment needed to access, old system or limited functions, etc.

During the course of contract, failures threaten access

- natural disasters, disastrous malfunction, business or legal failures, war, political or international problems, etc.
2. Current Status of Licensed Digital Resource in CSDL

- Current preservation arrangements
  - Contractual requirements policies
  - Contractual promises from most content providers for “sustainable access”
  - Raw data discs for most A/I providers
  - Some supporting systems from some A/I providers
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3. Preservation policy needs

(1) Objectives of CSDL digital preservation policies

- Ensure sustainable access to the resources and their integral services
- Ensure the resources reliably become integral parts in the CSDL/CAS information resource system
- Fulfill CSDL’s duty as a National Library of Sciences in the NSTL and contribute to the sustainability of the national S&T information resource system
- Ensure the legal reliability, cost effectiveness, and operational manageability of CSDL preservation efforts
3. Preservation policy needs

(2) Factors to be considered

What should be preserved?
- Use value and Strategic Value of the resources
- Un-replacebility of the resources or the access channels
- Legal feasibility

Who will preserve the resources?
- Unique purchaser?
- Collaborative purchasers and collaborative responsibilities?
- Legal requirements?
- Competency and reliability?
- Authorization feasibility?

How to preserve the resources?
- Content, systems, rights, management, financial support, etc.
3. Preservation policy needs

(3) General guidelines for CSDL

- CSDL should develop its digital preservation strategy and policies
- CSDL should integrate its preservation strategy into its overall resource development planning, and into the administration of resource evaluation, contract & rights management, system development, and financial planning
- CSDL should strive to preserve those strategically important research digital resources even though they have print backups
- CSDL should target those unique, uniquely accessed, or uniquely acquired digital resources as its preservation priorities
- CSDL should place its preservation effort on sound legal basis
- CSDL should support cooperative preservation by NSTL, NLC, CALIS, and should support its own cooperative preservation responsibilities
- CSDL should encourage publishers and other third parties to carry out preservation test, but as back-up services for the time-being
- CSDL should continually refresh or upgrade its digital preservation strategy and related management practices
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4 Suggested Policies

(1) General Policies for preservation modes

- Preserving the intergraded usage environment
  - Preserve the data (bit stream)
  - Preserve the information for effective use of the data (i.e., formats, processing info)
  - Preserve the use environment (i.e., software, linking mechanism, running systems)
  - Try to preserve management info of data and use environment (i.e., authentication, rights management, KOS)

- Preserving the integrated application system
  - Require dark archive (only pre-formatted data) for all
  - Require Semi-Dark Archive (data with usability and integrity checking) for all
  - Light Archive (data and application systems) for A/I databases
4 Suggested Policies

(2) Acquisition policies for preservation

- Providers fully recognize CSDL’s rights for sustainable access
- Providers timely provide perpetual copies, or grant preservation rights for the data in CAS local mirror sites
- Providers timely provide full info on data format, database structure, indexing and retrieval methods, as well as technical processing methods needed for normal services
- When a contract terminates, the providers permit CSDL’s continual usage of the purchased resources including related services
- When market failure occurs, CSDL automatically assumes the rights to provide online access using the perpetual copies within the specified range of the original contract
- CSDL promises to protect the appropriate legal rights of the providers
- CSDL must realize those requirements through legally binding documents
4 Suggested Policies

(3) Technological policies for preservation

- CSDL should develop its own digital preservation technology systems based on collaborative effort with other major partners
- CSDL must adopt open standards for constructing preservation systems and for managing preservation processes
- CSDL should secure its rights and abilities to preserve necessary software for data management, retrieval, and related services
- CSDL should establish a sound rights management mechanism for preservation of digital resources
- CSDL should conduct research on distributed preservation mechanisms
4 Suggested Policies

(4) Management policies for preservation

- Establish a normative process for selecting, appraising, authorizing, and re-evaluating trusted repository operators
- Establish back-up mechanisms for preservation based on crisis-management approach
- Specify, in details and in legal terms, the responsibilities, obligations, and rights of those involved in the whole preservation life cycle
- Establish active and reliable cooperation mechanisms for digital preservation
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5 Current actions & issues

(1) Current actions

- CSDL has signed an agreement with a domestic fulltext database provider for granting CSDL rights for perpetual usage of the data in the CAS local mirror sites.
- CSDL has put into the contract with most A/I database providers for them to supply the backup data by CD-ROM which can be used when contract terminates.
- CSDL has agreements with some A/I providers to provide raw retrospective data in CD-ROM while subscribing its web database.
- CSDL has agreement with one A/I provider for its provision of an intranet-based parallel service system.
- Most full-text providers agree on the needs and rights of CSDL for sustainable access, but hesitate on concrete means.
5 Current actions & issues

(2) Urgent issues

- Systematic strategy, action plans, and management mechanisms are not yet in place
- Technological know-how is in urgent need and technical systems are to be built
- Effective cooperative preservation strategies and reliable responsibility systems remains to be established
- Effective strategies and mechanisms for preserving self-developed and web resources are to be worked out
- Reliable and effective mechanisms and process management are needed for verification, preservation, and service provision of already owned perpetual copies
- Some providers are still evading their responsibilities to support preservation and sustainable access
5 Current actions & issues

（3）Open call for cooperation
- A Chinese strategy group to investigate a national strategy for preserving S&T digital resources, especially the licensed ones
- A Chinese round table to share and coordinate the policies, best practices, and issues in preserving the licensed digital resources
- An international cooperation mechanism to exchange knowledge and information, and to provide advanced training and advices, in digital preservation
- CSDL and LCAS is open to ideas and actions!
Thanks!