中国科学院国家科学数字图书馆
CHINESE NATIONAL SCIENCE DIGITAL LIBRARY

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前言**
- ❖ **2. Current status for d-resources数字资源状态**
- ❖ **3. Preservation policy needs长期保存政策需求**
- ❖ **4. Suggested policies政策建议**
- ❖ **5. Current actions &issues当前行动与问题**

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
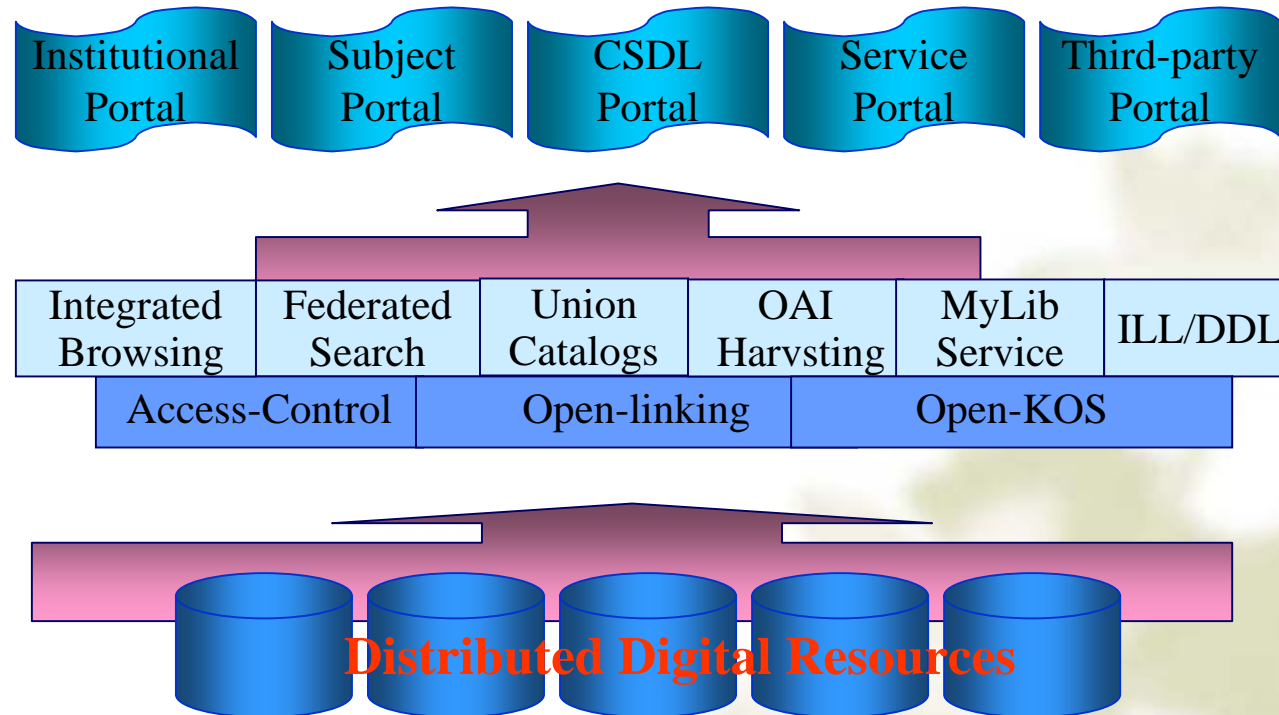 - Project Implementation
    - From 2001-2005, with plans to extend to 2010
    - Jointly developed by the central lib, 4 regional libs, 80+ institutional libs, and other partners

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 Harvsting	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

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2. Current Status of Licensed Digital Resource in CSDL

（1）Licensed digital resources

Type of database	Number of database	Number of Titles
Full-text e-journal non-Chinese	10	about 3000
Full-text e-journal in Chinese	1	over 9000
E-book or E-dissertation non-Chinese	4	about 50000
E-book in Chinese	1	over 25000
Factual databases	3	Over 900 volumes
Reference databases (abstracts and index)	11	

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

❖ （4）**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

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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!