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# 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

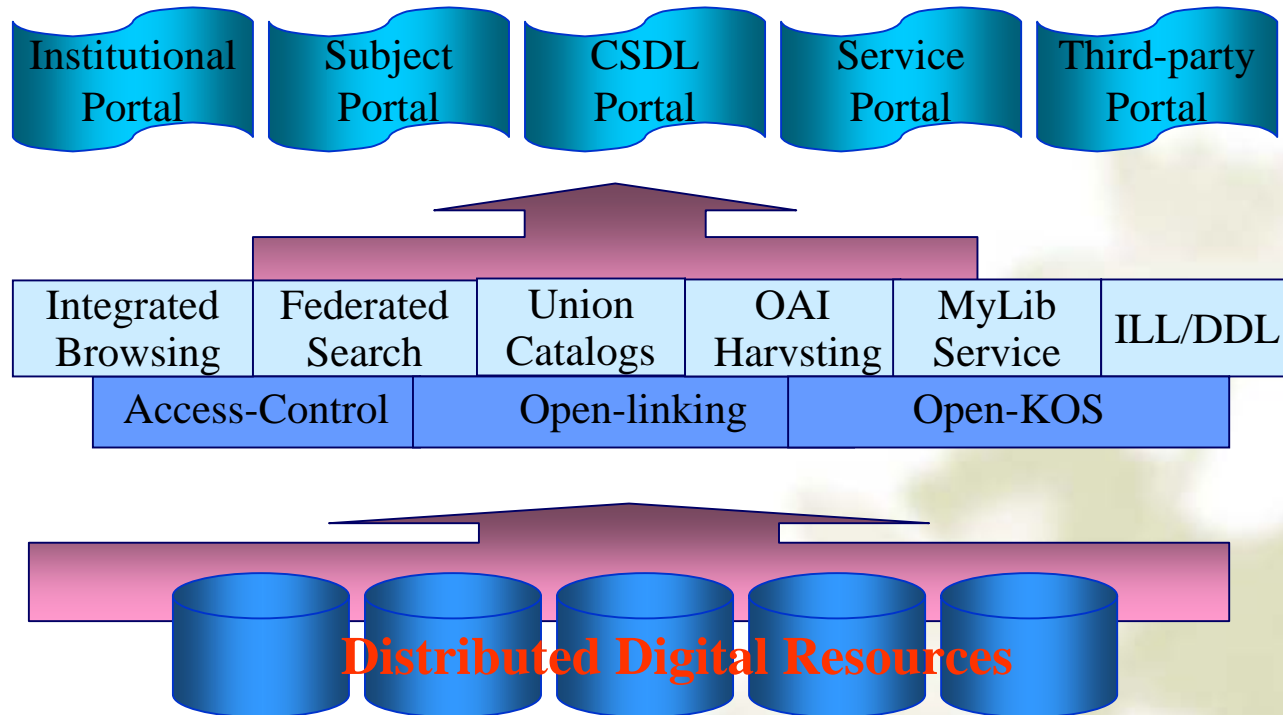
## 1. Introduction

- ❖ 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



# 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-replaceability 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!



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# Thanks!