Cultural Heritage without Boundaries:
On the International Digital Cooperation of the
National Central Library

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03/11/2005
Outline

- Overview
- Digitization of Chinese Rare Books at the NCL
- Digital Contents about Taiwan at the NCL
- NCL and LC digital project
- NCL and GSU digital project
Overview

- Digital Services of the National Central Library
  - Bibliographic Services
  - Indexing & Abstracting Services
  - Specific Subject Services
  - Document Delivery Services
  - Digital Content Services
  - Portal Services
Overview of the NCL International Cooperation

- To send delegations to attend the annual meetings of library organizations to exchange knowledge and learn about the latest international library developments, such as ALA, IFLA, AAS, PNC
- To engage in publication exchange programs with over 300 organizations around the world
- To receive many international visitors to enhance exchange relations
- To held a cross-strait seminar with mainland China’s universities since April 1996
- To initiate the international digital cooperative projects with the U.S. Library of Congress (LC) and Genealogical Society of Utah (GSU) in 2004
Cultural Heritage Treasures at the National Central Library

- The treasures of past generations of Chinese civilization comprise the most precious jewels of the NCL’s collection.
- Over 12,000 sets of rare editions (some 130,000 volumes)
- 153 rolls of the Dun-huang Manuscripts
- 175 sets of manuscript from the Sung dynasty (960-1279 A.D.)
- 272 sets from the Yuan dynasty (1271-1368 A.D.)
- Over 6,000 sets from the Ming dynasty (1368-1644 A.D.)
Digitization of Chinese Rare Books at the National Central Library

- The Special Collections Division at the NCL has converted the library's rare books and bronze/stone inscription rubbings into high quality digital image files.

- The Division is also responsible for creating rare book annotation files and compressed image files for Internet and CD-ROM use, making these precious documents widely available and ensuring their preservation for future generations.

- Until Sept 2005, an amount of the NCL 6,265 rare books (over 2.8 million images)、2,116 bronze/stone inscription rubbings (over 16,001 images)、「1,538 images of Dun-huang Manuscripts were successfully digitized.

- These digital images are all keyed to the database in the form of “metadata” for readers’ inquiries.
Chinese Rare Book Information Net 古籍文獻資訊網
http://rarebook.ncl.edu.tw/rbookod/index.htm

- Special Collection Online Exhibit 特藏線上展覽館
- Ming Literature Database 明人文集資料庫
- Rare Books Full-Text Search System 古籍全文檢索系統
- Chinese Rare Books Bibliographic Database 中文古籍書目資料庫
- Taiwan Area Genealogy Union Catalog 臺灣地區家譜聯合目錄
- Rare Books Image Search System 古籍影像檢索系統
The NCL Digital Archives Plan and the Three-year Library Development Plan are the cornerstone of digital archiving work at the National Central Library.

The two plans are making library resources readily available not only to researchers but also the general public both in Taiwan and abroad.

The library continues to expand the scope of its digital collection and create new value-added applications to provide an even better digital archive for future generations.
Digitization at the NCL
Technical Standards

- Technical Standards: Various types of Metadata formats and digital file standards are used by the library in digitization work:
  - Digital Library Distributed Protocols (OAI, Open URL)
  - Information Retrieval Application Service Definition and protocol Specifications (CNS-13416, Z39.50)
  - CMARC
  - Chinese MARC Format for Document Analysis

- Metadata specifications
  - Material Digitization and Denomination Principles
  - NCL Rare Book and CMARC Field Comparison Chart
  - NCL Periodical Image Coding Principles
  - NCL Newspaper Image Coding Principles
  - NCL Local Documents Image Coding Principles
  - Standards and Coding Principles for Conversion of Rare Book Microfiche Data to Image Files
Digital Content about Taiwan at the National Central Library

- Three major database systems developed for collecting and digitizing Taiwan area historical documents.
- **Taiwan Memory**: Subject-related modules on the historical figures, events, periods, places and things of Taiwan, drawing on the rich collection of historic photos, books, news clips, and other multimedia materials at the NCL.
- **Taiwan Info**: Information on Taiwan today presented in subject-specific modules.
- **Window on Taiwan**: An introduction to the culture, geography, tourism resources, and other facts on the 369 townships of Taiwan’s 21 counties.
The Reader Services Division at the NCL has gained the extensive experience in digitization along with the implementation of the three about Taiwan systems and further expanding their digital content coverage.

- **Taiwan Memory**: Over 350,000 metadata materials, 700,000 digital images and video archives, esp. 40 years of TTV night time news broadcast

- **Taiwan Info**: over 560,000 items of metadata and 16,000 digital objects (including pictures, tables, charts, music, and visual materials)

- **Window on Taiwan**: over 20,000 items of metadata, containing townships and villages information, contents fully translated in English

- **Funding support**: Ministry of Education (MOE), Council for Cultural Affairs (CCA)
Digitization of U.S. Library Collections:
Rare Books and Genealogical Resources

- **Digitization of rare books at the U.S. Library of Congress**
  The NCL and LC have signed an agreement to jointly convert rare Chinese materials to digital form.

- **Digitization of Taiwan genealogical materials on microfiche**
  The NCL has signed an agreement with the Genealogical Society of Utah (GSU) to obtain genealogical microfilm materials collected by the Society in Taiwan between 1970 and 1980
The National Central Library has extensive experience in digital resource creation and operations, especially in the area of metadata creation and digitization of rare books.

By bringing together the experience of NCL and the valuable collection resources of LC, this collaboration will contribute to the preservation of Chinese rare books and make them widely available to the public, realizing the ideal of resource sharing to benefit researchers and scholars worldwide.
The LC collection contains nearly 3,000 rare Chinese books (according to Wang Chung-min's *Catalog of Rare Chinese Books in the U.S. Library of Congress Collection*).

Editions coverage: from the Song to early Ching Dynasty, including valuable Ming imperial petitions and anthologies, one of the most important collections of such works outside of Asia.

Collection feature: Ming and Ching local histories and Ching editions together form an important resource for the study of Chinese politics, society, economy, literature and local history.
In February 2004, LC Asian Divisions specialists visited the NCL to learn about the NCL rare book digitization operations. During the visit, they proposed a cooperative project between the two libraries to digitize the Chinese rare books in the LC collection.

In June 2004, NCL Director Juang Fang-rung visited Dr. James Billington, the Librarian of Congress, and reached a verbal agreement to carry out the cooperative scanning project.
NCL Director Juang Fang-rung visited LC Librarian Dr. James Billington (June 24, 2004)
In March 2005, the two sides signed a formal cooperative agreement and digitization work was commenced.

A three years’ project from March 2005 to December 2007 is underway after the signing of this Agreement.
NCL and LC Digital Project
Cooperative Goal

- To facilitate the digitization and computer-readable description of selected rare book materials from the collections of the LC Asian Division.

- To make the digital production available to users on the NCL web site and LC web site.

- To concentrate the digitization of selected Asian Division rare books that NCL does not have, both by title and by edition, including some 80,000 images (about 300 titles) of Chinese rare books, which were brought from China to the U. S. since 1869, will be digitized.
NCL and LC Digital Project
Role and Responsibility

NCL
- To make human resources and equipment available to the LC to facilitate scanning operations
- To begin providing image files and bibliographic resources for the scanned materials before the end of 2008

LC
- To select rare Chinese books available for scanning
- To provide the necessary space and equipment for scanning work
- To provide bibliographic descriptive data for the scanned books in order to produce online bibliographical resources
### 94年 (2005) 美國國會圖書館古籍善本轉製影像工作日誌

**驗收人員：劉宛玲**  
**紀錄人員：林克達**

**日誌頁次：94年-09月-12日～09月-16日 - 1 (頁)**  
**檔案日期：民 94 年 月 日**

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國家圖書館九十四年度美國國會圖書館
館藏古籍善本轉製影像作業案例行週報 940916

✧ 本週目標：完成 2000 頁光學影像掃描與編目校正 (每日 400 頁)。

✧ 達成進度：已完成頁數 2337 頁，達成率 116.85%，累計 39239 頁。

✧ 下週目標：

1. 完成光學影像掃描與編目校正 2000 頁，累計目標 41239 頁。
2. 完成美國、台北資料庫異地備援啟用程序與檔案傳輸作業。

NCL and LC Digital Project
Current Progress

- About 80,000 images (300 titles) to be digitized till the March 2006, with the special funding from the Ministry of Education, ROC.
- About 46,000 images (200 titles) scanned, cataloged and proofread till the end of September of this year.
- Images scanned at actual size in 300 dpi/24 bit resolution, TIFF files with a flatbed scanner (Indus Book Scanner 5002) at an A2 / 300 dpi setting.
臺灣番社風俗
All about the aborigines in Taiwan (Formosa)
揚州府圖說
NCL and GSU Digital Project
Background (1)

- Genealogical materials are very important resource for the local history research.
- To facilitate the Taiwan area study research, the Taiwan Area Genealogy Union Catalog system was implemented by the NCL.
- To further increase the genealogical collections at the NCL and make them available in digital form on the web site for researchers, the NCL initially contacted the GSU for digital project cooperation.
國家圖書館
http://www.ncl.edu.tw
The Genealogical Society of Utah has acquired important family history sources in over 100 countries including Taiwan around 1970-1980.

The Society invites archival or scholarly institutions to work together to preserve and share the genealogical and family history heritage of people worldwide.

Historical documents captured digitally can be used repeatedly and reproduced often, leaving the original documents untouched, undamaged, and preserved for future generation.
NCL and GSU Digital Project
Cooperative Process (1)

- At the beginning of 2004, the NCL started to contact the Family History Center of the Genealogical Society of Utah in Taipei.
- After one-year intensive e-mail communication and onsite visits between two parties, the NCL and GSU have signed a formal cooperative agreement on Nov. 22, 2004.
- A five years’ project is underway after the signing of this Agreement.
- In Aug. 2005, the project received the financial support from the Ministry of Education. The NCL started to arrange the digitization work and had it contracted out by local digital vendor.
Ms. Yu Hsiao-ming, Chief of the Reader Services Division at NCL, visited the GSU headquarters in Salt Lake City, Utah, USA and met GSU librarians to discuss about the technical specifications needed for the digital cooperative project.
NCL and GSU Digital Project
Cooperative Goal

- NCL will create and complete the Digital Images and Indexes within five years from receipt of the 880 rolls (about 9,000 titles) of Taiwan genealogies microfilm from GSU, and send progress reports to GSU regularly.

- NCL delivers to GSU a free copy of the Digital Images and Indexes at the completion of the project.

- NCL makes the digital production available to users on the Taiwan Memory web site.
NCL and GSU Digital Project
Current Progress

- About 100 rolls (over 1,000 titles) of Taiwan genealogies microfilm from GSU to be digitized before the end of this year, with the special funding from the Ministry of Education, ROC.

- 14 rolls of the microfilm (202 titles) genealogies with 16,000 images completed monthly
Future Prospect

- To promote the collaborative efforts on international projects in innovatively merging historic heritage with modern technology
- To strive for the continuous funding for the completion of the two international cooperative projects
- To enhance the historical digital collections developments worldwide
- To preserve local and national historical documents with the joint efforts of domestic or international communities
Welcome to the National Central Library

http://www.ncl.edu.tw
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