国立国会図書館における所蔵資料のデジタル化とインターネット資料の収集タサブタイトルの書式設定

Digitization of collections and Web Archiving Project at the National Diet Library (NDL)

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NDL Profile

| | 1948 by the National Diet Library Law inheriting the collections of former Imperial Library and libraries of the Houses of the Imperial Diet (parliament) |
|--------------------|---|
| Number of staff | 890 (including Librarian and Deputy Librarian) (as of April 2010) |
| Stacked volumes | Total 36,617,299 items (as of March 2010) -Books 9,496,680 volumes -Periodicals 9,307,722 items etc. |
| Annual budget | 21.6 billion yen (Initial budget for FY2009) (approximately 233 million USD) |
| , , | Tokyo Main Library : 12 million volumes Kansai-kan : 6 million volumes ILCL * : 0.4 million volumes |

* IL TALIE International Library of Children's 3

Functions of NDL

- Acquire all materials published in Japan, as Japan's only depository library
- Preserve materials as national cultural heritage for long term
- Compile catalogs of materials in a database or other formats
- Provide library services based on holdings for Diet Members, for the executive and judicial branches of the national government and for the general public



Tokyo Main Library



Kansai-kan



ILCL

Why do we digitize?

Digital Library Services

enables users to read the collections via the Internet from anywhere, taking advantage of the digital form

| uizitai | digital lollil | | | | | |
|---------|---|--|--|--|--|--|
| | Formulation of the National Diet Library Electronic Library Concept Launch of the Online Gallery showing digitized collections | | | | | |
| 2000 | Launch of the Rare Books Image Database | | | | | |
| 2002 | Launch of the Digital Library from the Meiji Era | | | | | |
| 2003 | Launch of the Digital Library of Children's Literature | | | | | |
| 2004 | Formulation of the National Diet Library Digital Library Medium Term Plan for 2004 | | | | | |
| 2007 | Release of the National Diet Library Digital Archive Portal (PORTA) | | | | | |

Preservation of Materials

Materials can be preserved in good condition by using the digital data instead of the originals



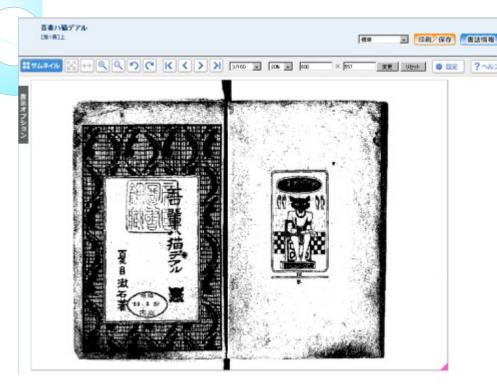
Digital Library from the Meiji Era http://kindai.ndl.go.jp/



- Books published in the Meiji (1868-1912) and Taisho (1912-1926) eras from the NDL collections
- 170,000 volumes120,000 titles18 million images
- Searchable by bibliographic data (title, author, subject, etc.) and TOC
- Reachable by searching
 NDL-OPAC (National Diet
 Library Online Public
 Access Catalog)

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Digital Library from the Meiji Era http://kindai.ndl.go.jp/



"Wagahai wa neko de aru" by Natsume Soseki

- · Digitized from microfilms
- Binary images (Meiji era):400 ppi for A4 sizes
- Grayscale images (Taisho era): Resolution 350 ppi for A4 sizes
- JPEG 2000, JPEG or PDF for delivery
- pageturner , zoom, image rotation
- · Free to download and print

Rare Books Image Database http://rarebook.ndl.go.jp/



- NDL's rare and old books including important cultural properties and colored materials
- 949 titles49,063 images
- Searchable by keywords and categories ("Chinese and Japanese old materials", "old maps", "color prints" and "important cultural properties"

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Rare Books Image Database http://rarebook.ndl.go.jp/



- Digitized from color films (4×5, Brownie)
- Color images
- 4×5 films: Resolution 1,500 ppi
- Brownie film:Resolution 2,000 ppi
- JPEG for deliveryJPEG 2000 for preservation

[&]quot;Azuma fuzoku 6" by Yoshu Chika-nobu

Background of Preservation of Materials

- NDL changed the method to preserve originals – from microfilming to
 - digitizatie NDL had already converted deteriorated materials to microforms and had provided microfilms or microfiches in place of the originals, the digital data will be provided in future in view of the ease of use and technological progress



Microfiche

- Copyright law amended in 2009
 - NDL can digitize its collections without permission to avoid damaging them
 - images shown within NDL buildings
 (The amendment came into force in January 2010)

How much is the budget for digitization?

- NDL's annual budget for digitization
 - from 100 million to 200 million yen per year(FY2000-2009)
 - 12.7 billion yen (approximately 137 million USD) allocated in FY2009(supplementary budget)



What do we digitize? - Large-scale digitization (Supplementary budget for FY2009)

Approx. 900,000 items, I 30 million images
 From FY2009 to 2010

- Object of digitization
 - Pre-War books (-1945)
 - Post-War books (1945-1968)
 - Domestic Periodicals(-2000)
 - Rare books and old materials
 - Official gazettes 9/2/10

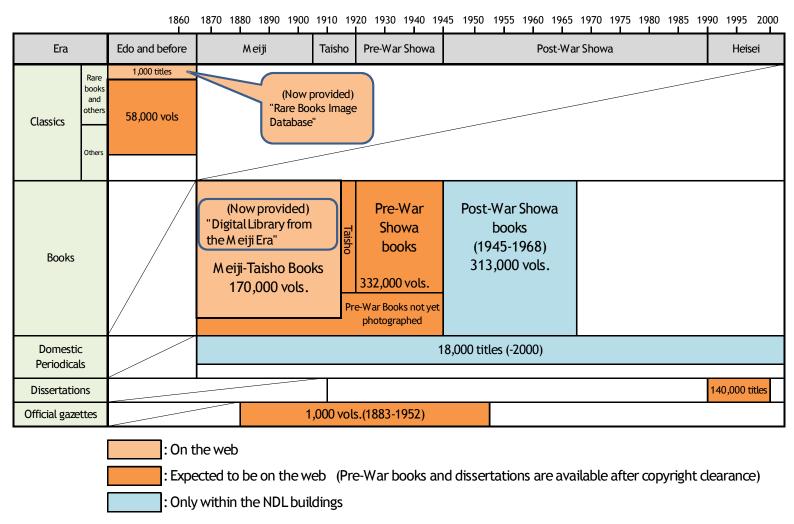
How do we digitize?

- Digitization Methods (Large-scale digitization)
 - · Scanning directly from original materials (Digitizing from microfilms when already microfilmed)
 - · Overhead scanner (incl. digital camera) without auto-page-flipping



- · From original materials: Resolution 400 ppi, Full color
- · From microfilms: Resolution 400 ppi in A3 sizes, Grayscale
- · JPEG2000 for delivery and preservation
- · Thumbnail of title page (JPEG)
- ·TOC
- · Update "The Guidelines for Digitization of Materials (2005)"

Access to digitized collections



Delivery System: 'Digital Library from the Meiji Era'
'Digital Archive System' (under construction)

Why do we archive webs?

- Internet resources are increasing
 - Change from print to online version
 - Published on Internet from the beginning

- Internet resources tend to vanish
 - Easily updated and deleted
- reorganized or merged
- past website deleted when reconstructing

WARP (2002-2010.3)



- Selective approach for archiving Internet resources
- · 2002 Experimental project
- 2006 Full-fledged operation
- · Collection of 4,600 titles (=about 22,000 entries), of websites and online periodicals of national government, local governments and various events, etc. based on the permission of site owners

WARP: **W** eb **AR** chiving **P** roject

• 15TB (as of the end of March 2010)

Web archiving Project based on legislation

- July 2009 : National Diet Library Law amended
- April 2010: Started to collect official institutions' websites in Japan, based on the legislation

- "WARP"→ "Web archiving Project"
- Target: about 2,400 sites

Current Status (April-June 2010)

| | | Frequency | Title | Apr Jun. 2010 | |
|-------------------|--|-----------|-------|---------------|----------------|
| | Target | | | Item | Volume (GB) |
| | National government | 12/ year | 42 | 125 | 3,323 |
| | Prefectures | 4/ year | 47 | 47 | 1,665 |
| | Major cities | 4/ year | 19 | 19 | 448 |
| on the | Municipalities | 2/ year | 1,725 | 10 | 8 |
| amended | Independent administrative agencies | 4/ year | 116 | 116 | 1,460 |
| Law | Universities (National or local government operated) | 4/ year | 172 | 172 | 3,198 |
| | Online periodicals | A/ N | 914 | 201 | 47 |
| | Subtotal | | 3,035 | 690 | 10,149 |
| | Agencies | 1/ year | 55 | 55 | 94 |
| | Private universities | 1/ year | 335 | 333 | 955 |
| on the permission | Events | A/ N | 38 | 8 | 0 |
| permission | Online periodicals | A/ N | 408 | 85 | 9 |
| | Subtotal | | 836 | 481 | 1,058 |
| Total | | | 3,871 | 1,171 | 11,207 |

*Frequency of municipalities : 2/year in 2010, 4/year from 2011 9/2/10

Web Archiving Project (Website)

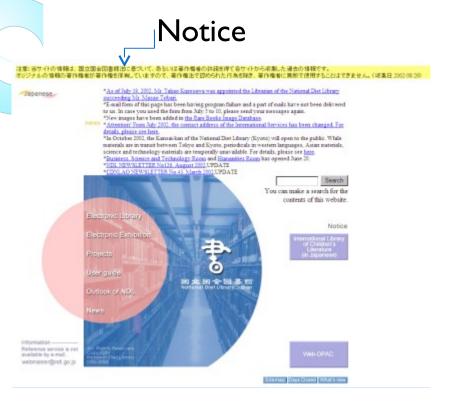
http://warp.da.ndl.go.jp



 Search by keyword, collection type, date of collection, webpage title, text, URL, classification, etc.

- Archived data
- URL start from " http://warp.da.ndl.go.jp/info:n dljp/pid/"
- Notice (date of collection etc.)

Archived data (example)



National Diet Library (date of collection : Aug. 29, 2002)

Consumer Affairs Agency, Government of Japan (date of collection: April, 2010)



2002 FIFA World Cup (JAWOC) (date of collection : Oct. 28, 2002)



Web Archiving Project (Online Periodicals)

http://warp2.da.ndl.go.jp



- Online periodicals extracted from web archives manually and metadata added
- Started in May 2010
- Search by keyword, bibliographic data
- Search from category (institution list, order of publication date, author list, title list, subject list)



Information

Thank you for your attention

NDL Website

http://www.ndl.go.jp/

List of Online Services

http://www.ndl.go.jp/en/service/online_service.html

General Contact Address (NDL)