

2009 CDNLAO COUNTRY REPORT

THE NATIONAL LIBRARY OF CHINA

1. General Overview

2008 was an important year in the history of the National Library of China (NLC) as it witnessed the completion and opening of a new library building, the National Library of China Phase II, as well as the finish of the first part of the development of China National Digital Library (CNDL) project. The work done in the last year is highlighted as follows:

- ① **Great efforts were made on providing free services to the public.**
With the support of state finance, the Library reduced or remitted charges for all service items on February 8, 2008 and achieved our public benefit service object. In full year 2008, readers to the Library totaled 3,280,000, which increased 0.47% when compared to year 2007; and library cards issued were 151,400, up 48.43% from the number of 2007.
- ② **The new library building (the NLC Phase II) was opened on 9th September 2008, some new systems of the CNDL were also put in place for public services on the same day.** The construction of the National Digital Library of China Project has never been relaxed and periodical results have been demonstrated. Digital resources has amounted to 250TB, among which 180TB are self-constructed. We have quickened the construction and release of digital resources, and up to now, 720 thousand e-books have been released on the internet and more than a million e-books have been uploaded on the Local Area Network. Over 10 revolutionary services have been launched for the public, including RFID automatic book circulation system, touch-screen electronic newspapers, virtual navigation, mobile phone-based “NLC in Palm” reading, China national digital library for the blind, wireless access, etc. They have enlarged the extent of services and get broad attention and recognition from social communities.
- ③ **The information services provided by the NLC to the state council departments were widely extended.** We have successfully and effectively completed tasks, such as providing special document research and information consulting service for decision-making and

law-making by state organs. In 2008 we have provided 9224 decision-making and law-making advisories, among which the *Information Report on Wenchuan Earthquake Post-disaster Reconstruction* has delivered effective information for the country's reconstruction efforts. The “NLC Legislative Reference Service Platform” was put into use.

- ④ **Significant work and leading performance were conducted by the NCL on facilitating the nationwide development of library and information services.** We innovated in service modes by jointly establishing branch libraries of the National Digital Library of China; continued to making progress in the NLC Western Aid Program; donated 350,000 books and 500 e-book optical discs, which were unloaded from shelves, to Wenchuan Earthquake-hit areas, such as Sichuan, Shaanxi, etc. to support post-disaster reconstruction of libraries; and organized volunteer initiatives in cooperation with the Library Society of China to carry out training of basic level library directors, in which 708 directors from 6 provinces were involved in year 2008.
- ⑤ **The NLC’s social education commitment was greatly strengthened and fulfilled.** In 2008, we hosted 165 different lectures totally, attracting about 30,000 audiences; undertook or hosted 20 plus exhibitions, such as “Large-scale Exhibition of Wenchuan Earthquake Relief Documentary Photos”, “Special Exhibition of National Precious Ancient Books”, “Western Eyes: Historical Photographs of China in British Collections”, etc. And the “NLC Wenjin Book Award”, which is honored as the “Wind Vane of Public Reading”, has been successfully held four times.

2. New Information Products and Services

- ① **Digital Library Services**
 - **NLC in Palm:** In 2008 the National Library of China launched the NLC in Palm, a NLC mobile service which uses mobile phone as the media. The NLC in Palm provides the reader with a portable library at any time. The service consists of five parts: Mobile Digital Library, Short Messaging Service (SMS), National Library WAP Website, Mobile Phone Reading and A Brief Tour of NLC. With the NLC in Palm, at anywhere and any time, the reader can get basic information about the NLC, obtain updated information about lectures,

exhibitions, etc., search in library catalogs, read books to be selected for Wenjin Book Award, inquire status of borrowed books, renew books, read NLC special digital resources and e-books, e-newspapers and periodicals that have been bought. All NLC mobile services delivered by the NLC in Palm are free of charge. When using the services, readers only need to pay for related GPRS traffic or SMS to local mobile telecom operators, and the National Library of China charges no fees from readers. The website address is <http://mobile.nlc.gov.cn/>.

- **Intelligent Shelf Navigation Service:** For both the reader service system of the NLC and the RFID shelf management of the NLC, the intelligent shelf inquiry system is a new component. The system is embedded in the Online Public Access Catalogue of the NLC (OPAC). Click the shelf number in the book information achieved through inquiry in the OPAC system, and then click the Shelf Navigation, the reader can get a two-dimensional map of the shelf he needs, which clearly points out the location of the shelf and suggests a best route, so that the reader can quickly find the book he needs.
- **Virtual reality experience:** In the general information and exhibition hall on the second floor of the north section of the NLC, there is a virtual reality experience area, which adopts virtual reality technology to create a virtual landscape of the real scenes in the north section building. A reader can use a specific device in the virtual reality experience area to communicate in real-time with the virtual navigation system through a hand gesture recognition system without touching the screen. Then the system will display a virtual landscape through an ultra-large screen before the user, allowing the reader to wander in the NLC in a virtual landscape, just like the reader is visiting the Library in person. Similarly, readers outside the library can also virtually visit the north section of the NLC through the virtual navigation system of the NLC&NDLC website at <http://www.nlc.gov.cn/vr/>.
- **Online registration service:** The NLC reader management system is a comprehensive reader information management system incorporating user registration, user authentication and user management. Readers can register for a NLC virtual card through the system. Those who have already got a NLC reader's card have no need to register again. The system allows one-stop ID information management and authentication across different systems and domains. Once a reader logs on to any one of the application systems,

authentication among all application systems can be realized. Offsite readers can also easily access NLC's online resources, thus the NLC's service coverage is extended and the usage of the NLC's online resources is boosted. The website address is <http://login.nlc.gov.cn/linkLogin.action>

- **Digital library for the visually-impaired:** To enable the visually-impaired to share the convenience of the information society with us, China Digital Library for the Visually-impaired is established with the collaborative support from the National Library of China, Information Center of China Disabled Persons' Federation, and China Braille Publishing House, providing an open, equal information and knowledge exchanging platform for the visually-impaired community in the form of website. On September 9, 2008, China Digital Library for the Visually-impaired began operation on a trial basis. On its home page, there are ten columns, including News Update, E-books, Music, MP3 Collections, Latest Announcement, Readers' Guidance, etc. Resources available include: 209 ancient books, 206 modern books, whose topics covers philosophy, religion, social sciences, politics, law, military affairs, economics, literature, history, geography, medicine, and health care, etc. 923 pieces of music works, as well as 378 lectures. Following the WCAG2.0 standard, the website adopts an accessible web page design format, which complies with the XHTML1.0 specification and is compatible with screen reading software used for the visually-impaired. The website address is <http://login.nlc.gov.cn/linkLogin.action>
- **Virtual reality reading kiosk:** The reading kiosk uses the Flash technology and the hand gesture identification system to provide readers who come to the north section of the NLC with digital books reading service and interactive experience. User can leaf through e-books on the computer in a no-touch virtual interactive way, realizing virtual reading of e-books. Up to now content available includes: Wenjin Book Awards-winning books, local chronicles, books in the Republic of China (1911-1949) era, and ancient books.
- **Multi-media touch screen:** Some multi-media touch screens are placed in the enquiry and exhibition hall and some of the reading rooms to provide readers who come to the Library with reading service of 10 frequently read e-newspapers. Users can read newspapers of current edition or previous editions. In 2009, other sections in the Library will also be equipped with multi-media touch

screens, offering 100 e-newspapers totally. In addition, multi-media touch screens also provide other content, such as introduction to the National Digital Library of China Project, services for sharing project, services for basic-level libraries, digital library for the blind, online book reading, mobile digital library, digital television, new technology exhibition, etc. and the screens can be linked to the NLC website.

- **Portable E-books:** National Library of China offers readers with 80 sets of Portable E-book Reader, with 500 e-books preloaded with each set. Portable E-book Reader is a portable electronic device. With a big LCD screen, it is specially designed for reading E-book. With built-in chips, it can be easily used to download E-books. The Portable E-book Reader can be lent to a reader through necessary procedures. A reader may download E-books on the E-book resource platform purchased by NLC according to their reading habits, or connect Portable E-book Reader USB to any online PC in the NLC building, logging on the E-book resource platform of NLC, searching wanted E-books and downloading, and reading them on the Portable E-book Reader. Up to now, the E-book resource platform of NLC offers E-books of 190,000 categories or 380,000 volumes, and chronicles of more than 1,000 categories. The aforesaid quantity will increase continuously.

- **Rubbing resource database:** National Library of China has more than 230,000 rubbings including tortoise shells, bronze, stones and so on. To make more researchers accessing to the precious rubbings through network, NLC began to digitize the rubbings since 2001. By the end of 2008, NLC has worked out metadata of 23,000 pieces and images of 29,000 pieces, and all of them are published on NLC website.

You can log on this

website: http://res4.nlc.gov.cn/index_jstp.jsp?channelid=75013

- **Oracle bone resource database:** NLC has collected 35,651 pieces of oracle bones, being one of the institutes with most oracle bone collections in China or even in the world. NLC began to digitize the oracle bones since 2003. By the end of 2008, NLC has worked out oracle bone images of 6,775 categories or 11,700 pieces and oracle bone rubbing images of 5,773 categories or 6990 pieces. Of which, 3,764 pieces of metadata of oracle bones and 7,532 pieces of images, and 3,775 pieces of metadata of oracle bone rubbings and

4,010 pieces of images are published on NLC website.

You can log on this

website: http://res4.nlc.gov.cn/index_jg_sw.jsp?channelid=75011

- **New Year Picture resource database:** NLC has collected more than 4,000 New Year Pictures, which are rich in different subjects. NLC began to digitize the New Year Pictures since 2005, and gave an introduction to each category of the New Year Pictures, including the outline of the story, background, distinguishing feature and some related knowledge. By the end of 2008, NLC has worked out digital New Year Pictures of 607 categories or 734 pieces. Of which, 278 categories or 338 pieces of New Year Pictures are published on NLC website.

You can log on this

website: http://res4.nlc.gov.cn/index_nh.jsp?channelid=75013

- **Tangut Material resource database:** Most of the Tangut Materials collected in NLC are the only existing copies in Tangut and Yuan Dynasty, which have 700 years' history or so. Tangut materials are of great importance for the researches on Tangut Buddhism. NLC began to digitize the Tangut Materials since 2003. By the end of 2008, NLC has worked out 124 pieces of data of bibliographies of Tangut Materials, and has a collection of 4,909 pages of images of original Tangut ancient books and 1,201 pieces of lists of Tangut Material research papers and 9,793 pages of full text images of research papers. Of which, 124 pieces of data of bibliographies of Tangut Materials, 2,991 pages of images of original Xixia ancient books and 1,201 pieces of data of lists of Tangut Material research papers are published on NLC website.

You can log on this

website: http://res4.nlc.gov.cn/index_xx.jsp?channelid=75013

- **Dunhuang Material resource database:** On March 7, 2001, NLC launched an international collaboration of International Dunhuang Project (IDP) with British Library. On Nov. 11, 2002, IDP Chinese Language website was officially online at NLC. By the end of 2008, 16,000 pieces of data of lists of manuscripts, 830 volumes of manuscript images and 23,051 pieces of full text images have been completed. Of which, all the data of lists of manuscripts, 660 volumes of manuscript images and some 10,000 pieces of full text images are published on IDP website.

You can log on this website: <http://idp.nlc.gov.cn/>

- **Digital Chronicle resource database:** Chronicles are one of the special collections of the National Library of China. The number and quality of the existing documents are very high. NLC began to digitize collected Chronicles in 2002. By the end of 2008, 6,868 categories or 3,350,000 pages of Chronicles have been completed and images of the first 24 pages of each categories was published on NLC website.

You can log on this website: http://res4.nlc.gov.cn/index_dfz.jsp

- **Doctoral dissertation resource database:** NLC Dissertation Collection Centre is designated by the State Council Academic Degrees Committee as the unique specialized institute in China for collecting and sorting China's dissertations, and is also designated by Expert Division of the Ministry of Personnel as the unique specialized institute for collecting postdoctoral research reports. By the end of 2008, NLC has a collection of doctoral dissertations of almost 120,000 categories and Master's dissertations from some colleges and universities, Doctoral dissertations from Taiwan and dissertations from some overseas Chinese. NLC began to build a database of full text images of dissertations. By the end of 2008, 130,000 categories or 17,000,000 pages of dissertations have been digitized. At present, 108,000 categories of dissertations are published on NLC website.

You can log on this
website: http://res4.nlc.gov.cn/index_lw.jsp?channelid=75008

- **Min Guo (The period of Republic of China, 1911-1949) document resource database:** Collection of the Chinese Min Guo books and periodicals is one of the special collections of NLC. NLC began to digitize collected Min Guo documents since 2003. By the end of 2008, NLC has completed 11,259 categories or 12,075 volumes of full text images of Min Guo books, 4,535 categories of full text images of Min Guo periodicals and 10,336 pieces of full text images of Min Guo laws. Of which, 8,172 categories or 8,884 volumes of full text images of Min Guo books, 4,329 categories of full text images of Min Guo periodicals and 8,112 pieces of full text images of Min Guo laws are published on NLC website.

You can log on this website:
http://res4.nlc.gov.cn/index_jg_sw.jsp?channelid=75011

- **Video & Audio resource database:** Video & Audio resource is an important part of NLC collections. By the end of 2008, Video & Audio collection reaches some 158,000 categories. Video & Audio materials include audio materials of audiotape, CD, MP3 and video materials of video tape, LD, VCD, DVD. NLC began to digitize collected video & audio resource since 2003. By the end of 2008, NLC has completed 515,889 pieces of digital audio materials and 51,281 hours of digital video materials. A reader can request his or her favourite video & audio resource through VOD system on LAN.

You can log on this

website: http://res4.nlc.gov.cn/index_av.jsp?channelid=75009

- **Chinese Studies network resource database:** Chinese Study network resource database includes two parts: Foreign experts of Chinese Studies database and Overseas Chinese Studies Navigation. By the end of 2008, it offers profiles of 150 Chinese Studies experts, including his or her research field, summary of the academic research, chronology and key research results, etc. It also provides 308 websites of Chinese Studies in different languages such as English, Japanese, Russia, French, Spanish and Chinese, and in different countries, including names, languages, categories, sponsor's introductions, content briefs, columns and special resources of the websites.

You can log on this

website: http://res4.nlc.gov.cn/index_zgx_wl.jsp?channelid=75014

- **Digital Television Service:** Cooperated with Beijing Gehua CATV Network Co. Ltd, with digital television service, NLC offers its resources and services to more than 3 million digital television subscribers in Beijing. With different columns, NLC provides its special resources with rich contents. Subscribers can also get more personalized services through the interactive portal of Book Lending.

- ② **Reference:** In 2008, the NLC handled 298,200 reference requests.
- ③ **Lending, incl. interlibrary loan:** By the end of 2008, NLC's volume of book lending reaches 15,792,347 volume time.
- ④ **National bibliographic services:** By the end of 2008, China National Union Cataloguing System has 1,081 members and the

upload and download volume of data of this system reaches 2,542,180 items.

- ⑤ **Reading promotion:** NLC has organized and carried out reading promotion activities, including reading of different kinds, lectures and exhibitions. It publishes China Reading Report as well.
- ⑥ **Acquisition, donation and exchange:** In 2008, NLC acquires all kinds of books of 459,092 categories or 1,918,645 volumes, and accepts donation of 14,960 categories or 20,957 volumes of books and 20,870 categories or 112,338 volumes of periodicals.

3. Major events

- ① September 9, 2008 marks the completion and opening of a new library building, the National Library of China Phase II, as well as the finish of the first part of the development of China National Digital Library (CNDL) project. The new building covers an area of 80,000 m², which adds the total floor area of NLC up to 250,000 m².
- ② From Oct. 27 to Oct 31, 2008, the annual meeting of the Library Society of China was held in Chongqing municipality in southwest China. Over 800 representatives of from home and abroad attended the meeting. In the meeting 1,314 pieces of dissertation from 1,668 persons were submitted. The theme of this meeting is Library Services for the General Public. And the meeting also held in-depth discussion on theories and research methods of library science. The annual meeting for the first time adopts live video broadcasting of the opening ceremony and keynote speeches on the Internet, offering librarians nationwide an opportunity to witness this event.
- ③ Organizing activities at the Library, such as Summit on Building a Public Library Service System, Seminar on Public Library's Information Services to the Government, etc.
- ④ Library Services Manifesto, the first manifesto of the China's library Community, was released at the annual meeting of Library Society of China. It is a manifesto of China's library community after years of amending, and is a commitment made to the public by China's library community. It is of great historical and reality significance. Releasing of the Manifesto will help promote self-discipline in the library community, as well as improve the legal environment for the library community in China. It also marks a new starting point for

the library community in China to undertake more social responsibilities.

- ⑤ Offering assistance and relief to libraries and library staff in the Sichuan earthquake-hit areas. After the May 12 earthquake, the Library Society of China issued a *Letter on Soliciting Disaster Relief Measures* to the standing directors of the Society, and issued a *Proposal for Disaster Relief and Post-earthquake Reconstruction* to its branches, local library societies and all Society members and librarians in China. We set up disaster relief administration office, which is responsible for collecting and managing relief funds and resources, soliciting rebuilding suggestions, arranging and carrying out disaster relief plans, information release, etc. We also issued a call for assistance to the library community, to collect donation to the libraries and their staff in the disaster area. The proposal received active response from the library community at home and abroad.

4. Particular report on one of the following four themes on cooperation in knowledge-based society adopted in 16th CDNLAO

- 1) Open source software
- 2) Digital preservation
- 3) “National Libraries Global”
- 4) Web archiving

Web archiving

I. Background

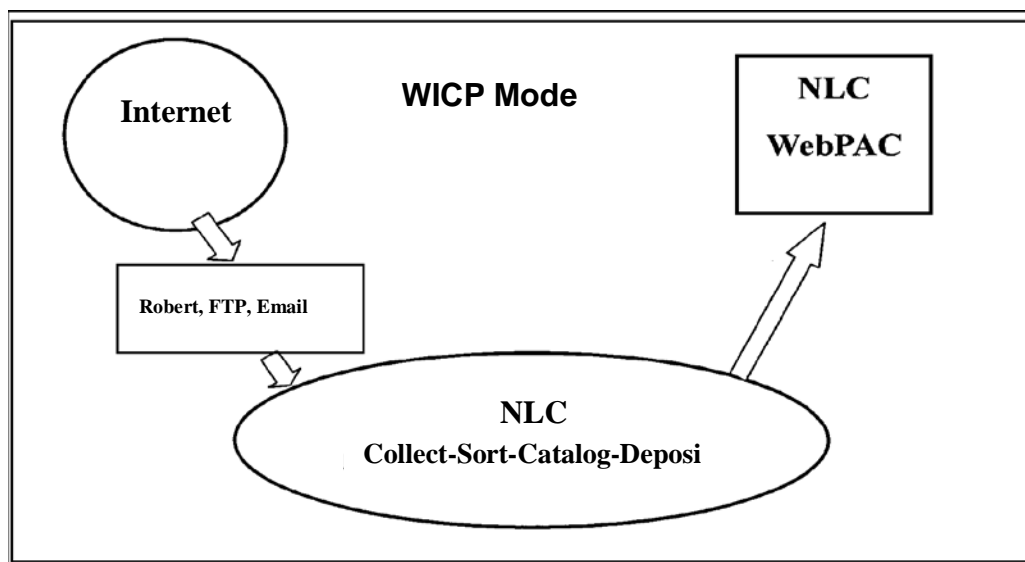
The Internet has become an important channel to get information for its extremely rich information sources and high development speed. In accordance with the investigation data from China Internet Network Information Center (CNNIC), the number of Chinese websites has reached up to 1,919,000 (annual growth rate of 46.3%), and the number of domain names had reached up to 14,850,000 as of July 2008 (annual growth rate of 61.8%). Such a big web information source with a high growth speed is the biggest information source database of China, which has reflected the current status of China’s politics, economy and culture during a special historical period. What has presented a striking contrast to the booming of webpage’s quantity is the very short life of webpage. Averagely, the webpage can exist for 44 days only. In the information society, the value of web information has been recognized to be the important part of the cultural relics of a country. More and more data have been saved only by means of web information. If no effective measures are

taken to keep them, we will not be able to get them for use again once they disappear. National Library of China is fulfilling the function of a deposit library. From 2003, it began setting up a project team and making pertinent web collection policies to preserve the great events reflecting the politics, economy and culture of China among the volumes of Chinese web sources.

II. WICP (Web information Collection and Preservation)

In 2003, National Library of China founded a group being composed of reference consulting librarian, cataloger and net administrator for collecting and preserving web documentation and went into the execution of WICP project. The purpose of this project is to dig out the problems on collecting, arranging, cataloguing, preserving and serving web documentation and put forward the solution, then to confirm the object to be preserved and define the technical route and strategy based on its characteristic, then to try to collect, arrange and preserve data and provide service and finally to make the plan of business integration.

WICP project mode:

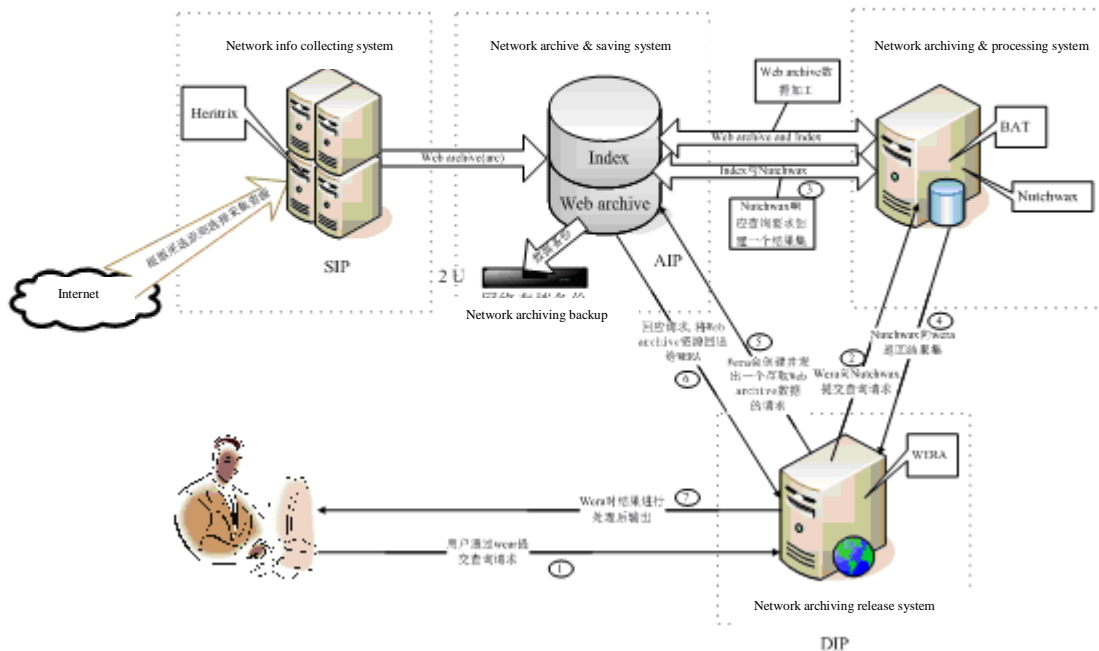


Since 2006, we have emphasized on studying the technology on how to more effectively collect and preserve web information source, and made full investigation on web information source collection system software accordingly. By browsing and reading the international famous web information source collection project websites such as PANDORA from Australia, NDIIP from USA, Internet Archive, IIPC, UK Central Government Web Archive from British , Open Source Software that can be collected has been downloaded and arranged. After going through a series of test, we decided to stress on the solution of web source permanent preservation integration system provided by International Internet Preservation Consortium (IIPC) to test. The software kit recommended by IIPC is composed of Heritrix (web collection), NutchWAX (search engine), BAT(saving format process) and

WEAR. This system has been used by many national libraries of other countries. It can collect and publish based on the requirement. However, the format of web source file collected meets the international standard of WARC format. So, the international data exchange can be made easily. All of these tools are Open Source Software based on Linux, which can be downloaded from IIPC website at <http://netpreserve.org>.

We have used this set of software to have the web information source collection and publish system of National Library of China successfully configured. Please see the following picture for details.

IIPC Kit equipped network sources collection and release system



Results of Web Information Source Collection

(I) Collection in 2005

1. Subject archive databases in year 2005:

Mainly collect 193 websites of 7 subjects including China Studies (34 websites), open access (18), Olympic Games (32), Aviation (19), Media Report of NLC (19), Digital Library (26) and Keep the advanced spirit of party members (45) reaching the volume of 202GB to make mirror archive. The task of manually cataloguing the metadata of the special subject has been finished. Moreover, multi-field search can be achieved.

2. Government Websites: NLC has periodically made mirror archive for the government website (.gov.cn) registered in China. The

volume of zipped data has reached up to 259GB covering about 19,968 websites.

(II) Collection in 2006

1. Subjects covered:

In 2006, a total of 15 special subjects were collected, including 11 new ones and 4 updated old ones.

11 new subjects

Construction of new rural areas in China (53 websites)	Non-material cultural relics (32 websites)
Eleventh Five-year Plan (55 websites)	Cultural industry Fair (30 websites)
Beijing Summit of Sino-African Cooperation Forum (51 Websites)	The First China Cultural Heritage Day (15 websites)
Anniversary of Long March Triumph (47 websites)	Harmonious Society (42 websites)
Opening of Qinghai-Tibet Railway (47 websites)	Socialist Concept of Honor and Disgrace (53 websites)
Self-initiated innovation Programs (33 websites)	

Total: 458 websites

4 Updated old subjects:

Olympic Games (43 websites)	Digital Library (41 websites)
China Studies (43 websites)	Media Report of NLC (29 websites)

Total: 156 websites

In total, there are 614 websites, including new ones and updated old ones, have been collected. Actually 555 websites are displayed.

All the collection work had been completed by the middle of September 2007. Finally 335GB data in volume and 13,345,237 files in quantity have been collected. After being zipped, the data is 222GB in volume. Moreover, these data has been indexed. The indexed data finally

amounts to 144GB.

2. Government Websites in 2006

11,317 government websites have been displayed. The data of 1,468GB in volume (unzipped) and 39,939,774 files in quantity has been collected. After being zipped, the data is 908GB in volume. Moreover, these data has been indexed. The indexed data is 362GB in volume finally. The data collected by applying software system recommended by IIPC meet the international standard and the full-text search is available.

New version has been applied to the web collection site. All of data collected in 2005 and 2006 have been integrated to a new site.

(III) Collection in 2007

1. Subject Outline:

Construction of New Rural Area in China (10 websites and 9.9GB in volume)	Good Luck Beijing (21 websites and 0.9GB in volume)
China Studies (33 websites and 308.5GB in volume)	Chang E Number One (57 websites and 20G in volume)
Special Olympics (15 websites and 15GB in volume)	The third Economy and Trade Forum (14 websites and 0.6GB in volume)
Seventeenth National Congress of the Communist Party of China (71 websites and 31GB in volume)	Tenth Anniversary of Hong Kong's Return to the Motherland (57 websites and 36GB in volume)
Scientific development and harmonious Society Building (41 websites and 7GB in volume)	Medium report of National Library of China (99 websites and 7.6GB in volume)
85th anniversary of the founding of Communist Party of China (20 websites and 7.8GB in volume)	Taiwan Straits Status (14 websites and 12GB in volume)

Total volume: approximately 500GB.

(The above-mentioned data is from the websites released and the data volume is the one zipped.)

The full-text catalogue and the navigation page for the above subjects have been made, and have been released in the new website version.

2. There are about more than 50,000 Government websites. The data is 7.7TB in volume (after being zipped).

(IV) Subjects in 2008 (collection is being made now)

The Olympic Games (25 websites)	Snowstorm in the early 2008 (14 websites)
Lhasa Riots (30 websites)	Annual Sessions of the National People's Congress (NPC) and the Chinese People's Political Consultative Conference (CPPCC) in 2008 (33 websites)
The Paralympic Games (43 websites)	NLC Phase II Launch (44 websites/page)
Shenzhou-7 Spaceship (39 websites)	

The subjects that have been released are:

Snowstorm in the early year (totally 14 websites and 3.0GB in volume),

Wenchuan Earthquake (totally 80 websites and 85.7GB in volume).