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**National Bibliographies: Past, Present and Future
– The Korean Experience**

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Abstract

This paper presents the history and the current situation in Korea in terms of the national bibliography, national union catalog, legal deposit and other bibliographic control. The National Library of Korea has been playing key roles in the provision of complete bibliographic records of the available publications in Korea. The national bibliographies are becoming more diversified in terms of including different types of material. The National Library of Korea presently plans to have special projects for promoting the legal deposit system and preparing to revise its legislation to include more types of material, in particular electronic publications as well as the public relation of it. Within the next few years, revised legal deposit act will comprise all forms of published materials and it will be fully in agreement with the ICNBS recommendations.

National Library of Korea

As a national representative library, the National Library of Korea with collections of around 5.7 million volumes, exists to provide a national library service to the people of Korea and to those everywhere interested in Korea and the Koreans. It's a treasure house of Korean material that has comprehensively and systematically collected and preserved our national intellectual and cultural assets in an effort to hand them down to the future generations.

The National Library first opened at Sogong-dong, Joong-gu, Seoul in Oct. 15, 1945. At that time, only 16 staffs with 284,457 volumes began to service. The main building relocated to Namsan in 1974, and the new built main building relocated to Banpo-dong in 1988. At the end of 2005, the National Library of Korea reached 5,658,476 volumes accumulation and the number of the staff has grown to 228. The National Children and Youth Library will open in 2006 and the National Digital Library will open in 2008.

As the total collecting place of all the books and documents produced in Korea, the National Library of the Korea collects national publications, which are regarded as the resource of

intellectual and cultural heritage of the nation. Lee (2000) mentioned that major roles and functions of the national library were collecting and preserving activity of the national publications, compiling of national bibliography and services, collection of foreign publications, and legal deposit as a representative national library. Among them, the most important foundations for the national library are to produce a national bibliography and to practice bibliographic control over the countries' intellectual output as well as to make it available and accessible to users. Because it contributes a great deal to the sharing of knowledge and resources, which has been a principal aim for libraries.

According to the Library and Reading Promotion Act, the National Library of Korea has responsibilities for constructing and providing bibliographic information of the domestic publications in order to use easily by collecting national materials and classifying and cataloging systematically. Among the ways of collecting the materials are submission, purchase, donation or international exchange, and over 530,000 volumes are being collected annually.

I will look into how Korea stands in relation to the various components that make up national bibliography and also how Korea meet some of the recommendations from the International Conference on National Bibliographic Services (ICNBS) in Copenhagen, 1998 as the main guideline for national bibliographies worldwide. In most countries legal deposit legislation serves as the major instrument for ensuring that published documents in all formats are collected, whereas the national bibliographies are the main tools for ensuring the recording of the national heritage. This is also the case in Korea.

Korean National Bibliography

The foundations of a national bibliography remain an effective legal deposit framework, and the use of widely acceptable bibliographic standards. The legal deposit ensures a comprehensive listing of the nation's published output, and the bibliographic standard enables the sharing of national bibliographic records among libraries both within and outside the producing country.

As a national bibliographic control center, the National Library of Korea collects and preserves all domestically published documents, and it compiles national bibliographies and other publications to make its collection available for research purposes. The overall responsibility for national bibliography as well as for the strategic issues related to the development of catalogs, the MARC-format and bibliographic standards lies with the National Library of Korea.

According to the Library and Reading Promotion Act passed in 1994(March 24, 1994 Regulation 4746, revised on January 12, 2000 Regulation 6126, revised on May 29, 2003 Regulation 6906), the National Library of Korea should provide the national bibliographies, standardization, International standard Book Number (ISBN) and International Standard Serial Numbers (ISSN); and it should also coordinate the library networks and national information infrastructure through computerization; and it should cooperate with National Assembly Library of the Republic of Korea to accomplish their work effectively.

National bibliography is a major instrument in ensuring a full recording of the national published heritage and achieving bibliographic control. National bibliographies catalog and introduce essential information on all materials published within Korea, and they serve as an indispensable resource for academic research.

The Korean National Bibliography is a standardized national bibliographical index of all the published materials produced in Korea that have been received as legal deposit. The National Library of Korea has distributed it in multiple formats such as print, CD-ROM, DVD, and internet. The Library has published national bibliographies such as the *Korean National Bibliography* and *Korean National Bibliography Monthly*, and also makes *Korean National Bibliography Weekly* available through its online service. Since 2004, it has published in CD-ROM and the era of print is now close to an end in Korean National Bibliography.

Annual publication of the Korean National Bibliography began in 1963. It was titled *Full List of Korean Publications* and collected bibliographical information of all the documents submitted to the National Library of Korea for the year and aimed at the standardization of catalogs and publication information offering. Because of gradually growing volumes of publications year by year, it has been published in two separate volumes since 1989 and CD-ROM version was produced in 2004.

The masters and doctoral theses have been excluded from entry since 1990. The responsibility for these has been transferred to the National Assembly Library of the Republic of Korea where *The List of Theses for Doctors' and Masters' Degrees Awarded in Korea* has published since 1969.

In general, national bibliographies in Korea are quite comprehensive in their coverage. The bibliographies contain e.g. monographic material, serials, sound recordings, videos, cassette tapes, maps, slides, computerized materials such as video CD, DVD, CD-ROM, CD-I, CD-G, other CDs, microforms, government publications, and research. There is still an emphasis on text forms, and the newer materials such as e-books and e-journals to a certain extent are not included in the national bibliography. Non-book materials and electronic materials tend to be more easily left out of the national bibliographies than textual material. The National Library of Korea collects and records documents published abroad by national authors and materials about the country, its inhabitants or of national interest, however, such material is not a part of the Korean national bibliography.

The CD-ROM version of *Full List of Korean Publications* (2003) was published in 2004 in order to overcome the shortcomings of the print format. The search function was expanded to title, author, publishers, key word, classification number, ISBN with simple retrieval, and complex Boolean search, search again from the result. Various retrieval functions as well as browsing function for each year of publication and format of materials were added. The categories of the materials are composed of all, general books, theses, government publications, children's books, educational books, Korean old books, Braille books, non-print materials and serials. The MARC data in KS letter code has changed to Unicode that can be used any place in the world as an international standard. Menu and help functions in Korean and English are available and internationalization of the national bibliography is coming further.

The Korean National Bibliography (2004), during the period 1945-2004 was published to celebrate its 60th anniversary of the National Library of Korea in 2005 and to reconsider the true status of the Korean National Bibliography. It covers all the deposit materials of the National Library of Korea, and the materials registered in University Libraries Union Catalogs at Korea Education & Research Information Service (KERIS) and the collection of the public libraries of the Korean Library Information System Network (KOLIS-NET).

Except for the total number of the items listed in the bibliography, the number of the items listed for each category is not provided. It was published in DVD that has more capacity and the title changed from *Full List of Korean Publications* to *the Korean National Bibliography* that described the contents clearly.

The national bibliographic records that publish on Internet and DVD are available free of charge. Although there is no specific recommendation from the ICNBS conference in pricing policy, pricing may influence the extent of use. The copies are distributed to domestic institutions, including public libraries across the country, specialized libraries, university libraries, government research facilities, school libraries, and government publications depositories. In addition, over 150 copies are distributed abroad for international exchange purposes.

The Korean National Bibliography Monthly provided timely bibliographical records of legal deposit materials to the National Library of Korea on a monthly basis from 1965. The title of the bibliography "*The Korean National Bibliography Monthly*" changed to "*Library and Information*" during the period, 1972-1993. Since 1994, the title has changed again to "*The Korean National Bibliography Monthly*" that was more easily recognized the content of the bibliography than the former title. By cataloging new books acquired by the National Library of Korea on a monthly basis, information about new Korean books provided in a timely fashion.

Over 1,000 copies each of 10 issues (January/February and July/August were joint issues) of the *Korean National Bibliography Monthly* were printed. These copies were distributed to domestic institutions, including public libraries across the country, specialized libraries, university libraries, major information facilities, school libraries, and government publications depositories. In addition, about 50 copies were distributed abroad for international exchange purposes. However, this monthly issue has discontinued because of the availability of CD-ROM and internet version of the bibliography.

Korean National Bibliography Weekly has been available through the National Library of Korea's online service since May 30, 2003. *Korean National Bibliography Weekly* provides prompt, up-to-date bibliographic information on a weekly basis of new Korean publications that are received through the legal deposit system. The bibliographic format and order is the same as the published version of the *Korean National Bibliography Monthly*. *Korean National Bibliography Weekly* is updated every Friday, and each week's bibliographic listing remains online for eight weeks, after which it is replaced with new information.

It lists four categories - general books, government publications, children's books, and non-print materials. The bibliographic entries are arranged alphabetically by title within each category. General books, classified by subject according to the ISBN, are cataloged according to the 4th ed. of the Korean Decimal Classification (KDC) system and KORMARC description rules. Government publications are cataloged according to the authoring government agency. Children's books are cataloged alphabetically by title and non-print materials are cataloged by medium.

This is available on the Library homepage. Therefore the dissemination of the national bibliography appeared on the Internet has been much better and timeliness and effective distribution is not a problem in Korea. Probably in the future all national bibliography will follow and concentrate on web access.

National bibliography should include the current national output. In practice, no national bibliography could possibly achieve this. Korean national bibliographies are quite comprehensive in terms of coverage. But the selection criteria for the inclusion of remote electronic resources are not fully developed yet. In terms of bibliographic control the new types of publication, including Internet documents, should be handled alongside the more traditional content of a national bibliography. Therefore selection criteria should be defined and published by the National Library of Korea in accordance with paragraph 4 in the ICNBS recommendations: "National bibliographies should include the current national output, and where practicable they should also provide retrospective coverage. When necessary, selection criteria should be defined and published by the national bibliographic agency."

The National Library of Korea has begun legal deposit agent and MARC database outsourcing program since August 2004. The purposes of the programs are to collect materials that are published and produced in Korea quickly and to provide standard catalogs to all libraries in Korea and to prepare a foundation for librarians to do more professional information service in the field. Selected local agents are processing the legal deposit work and they are doing classifications, cataloging, and building contents and title database. And the staffs at the Library are doing quality control of the cataloging and classification, assigning the subject headings, making access points and authority data and verification of the whole things.

According to the National Library of Korea 2010(2005), the Library will provide various bibliographic information services. One of them will be an expanding of the comprehensive national bibliographies. Many selected bibliographies, for example, forthcoming books information will be prepared by the e-CIP system and the *Korean National Bibliography Weekly* will provide a book review list as a selection tool for users, bookstores, and libraries. And the bibliographic information regarding special subjects and major issues of the year will be prepared for each year.

There is a homepage for national bibliography that deals with providing important notification of the catalog openly, and discussing the cataloging rules and subject headings, and authority record for systematic knowledge organization, and sharing opinions with other institutions.

KOLIS-NET

Korean MARC on disc project, which includes bibliographical information on monographs and dissertations produced in Korea since 1900, was begun in 1994. The Korean MARC on disc served as more than just a back-up source for bibliographic information on the National Library of Korea's holdings. It was also widely utilized in copy cataloging and made a positive contribution to standardizing bibliographic data. The Korean MARC on disc that included bibliographical information on Korean monographs and academic theses had been produced twice a year, once in the spring and once in the fall. The 2003 fall edition was made available for download online through the homepage of the KOLIS-NET. Because the information is now available as an electronic download, the physical production of the CD-ROM has been discontinued. Updated version of the KORMARC bibliographic catalog continues to be offered on a real-time basis for download on the KOLIS-NET system and aid in the standardization of bibliographic information and copy cataloging.

In order to manage the computerized national publication information system and the library cooperation network, the National Library of Korea has been constructing the KOLIS to provide comprehensive computerized service for all the materials in its collection. After the

start of KOLIS's operations on October 1, 1999, it has become possible for both librarians as well as users to have convenient and accurate access to large amounts of information, and a new era in the future of library digitalization had been opened. Furthermore, to meet the demands of a rapidly changing library environment and adjust to change in the workplace, the Library has made further efforts to address areas that need improvements so that it can create a systematic and effective management system. It is a nationwide network linking libraries and the catalog DB of resources available in the library. Through those efforts for informatization, the Library takes a role as a national information center of documents and information in order to help the public share digital information and service through internet.

All the materials held in public libraries across the nation are being entered into the National Union Catalog Database so that they can be used on a network based on the Windows platform through KOLIS-NET, one of the five national infrastructure networks. KOLIS-NET, a national library and information system network, is operated mainly by the National Library of Korea, which has three subordinate operating libraries by library type. Currently, more than 350 libraries are linked by the network for the purpose of achieving the goal for the joint construction and operation of a national publication information database. It is a system that was developed to allow librarians and users to manage large volumes of information accurately and conveniently. Users of KOLIS-NET can easily search for materials held in libraries throughout the country, while libraries are provided with a systematic and effective management system that is capable of uploading and downloading catalog data. The full operation of KOLIS-NET makes the sharing of the National Union Catalog a reality, and it provides a firm basis for expanding the electronic library system and providing the public with this service.

All catalog data and location of the materials throughout the country can be retrieved with a strong information retrieval and a convenient user interface. The categories such as title, author, publisher, location, keyword, type of the material, publishing country, language, and university code can be used as a limited search, and other convenient user interfaces are provided. And a distributed and integrated search via Z39.50 protocol can be used and customer oriented information services are provided individually. And various databases from the National Library of Korea, Korea Institute of Industry and Technology Information (KINITI), KERIS, National Assembly Library, KAIST Science Technology Library are also searched by integrated institution search.

By using KOLIS-NET, the library that locates the material and other information related to the library can be searched. When the materials do not exist at the regional library, users can request the materials and the librarian can arrange the materials from other library and the documents are delivered by e-mail and mail service. Resource sharing program is one of the future plans that make each library share the information about its acquisition and collection development through the KOLIS-NET. It will bring a very strong and effective whole library collection throughout the country. In the end, it will be a tool for providing perfect national bibliographic service functions such as interlibrary loan and cooperative cataloging as well as effectiveness of the simple cataloging procedure throughout the country.

Thanks to the catalog database on resources available in the library that was built in the National Library of Korea, users can search the DB on online terminal available in the library. The Library also provides public information network service for the purpose of helping users search cataloging information quickly and conveniently at home and office. The library integrated major libraries' information DB into a single national publication information DB

on the back of the construction of a nationwide library network, which enables to search resources available in each library and if necessary, download them for being utilized in the construction of each library information DB. Also, it has constructed the content information DB of the collection since 2000.

Legal Deposit

Legal deposit is the best, legal and systematic way of collecting publications for the national library and it is vital for national bibliographies. Legal deposit regulations as the basis for national bibliographic services are a matter of urgency. According to the final recommendations of the ICNBS in 1998, national bibliographic agency should examine existing deposit legislation and consider its provisions in relation to present and future requirements. When necessary, existing legislation should be revised.

In Korea, the Library Act passed in 1963, the legal deposit for the national library was first introduced. At that time most of the materials are the printed one. The Library Act revised in 1987, began to include serials clearly as the legal deposit item and the Library Promotion Act passed in 1991, began to introduce diverse formats for legal deposit such as books, periodical publications (newspapers, magazines, and academic journals), music recordings, videos, cassette tapes, maps, slides, electronic resources (video CDs, DVDs, CD-ROM, CD-I, CD-G, and other CD data), microfilm materials, government publications, and research publications. Although the concept of legal deposit has changed from inspection to preservation and succession of the intellectual cultural heritage since 1990, complete legal deposit has not made and the loss of intellectual cultural heritage was serious.

The Library and Reading Promotion Act passed in 1994(March 24, 1994 Regulation 4746, revised on January 12, 2000 Regulation 6126, revised on May 29, 2003 Regulation 6906) requires the legal deposit. According to Article 17, presentation of document copies, of the Library and Reading Promotion Act revised in 2003, two copies of all the documents published or produced in Korea should be submitted to the National Library of the Korea within 30 days from the date of publication or production by publisher (publication company or individual), producer and central and municipal government. All the resources submitted are permanently preserved as registered national documents, and are used for promoting and upgrading Korean culture to overseas by the publication of national bibliography, not to mention the use by the public. The resources collected in this way of submission accounts for 70% of the total library resources.

Although Korea has fairly new legal deposit legislation, the submission of all materials published and produced was not achieved yet. Actually, there are problems in various formats that do not have an official channel of distribution, and those are hardly to identify their location. Even the existence and availability of those materials are not easy to find since earliest publications are out of print or lost, and even those published in different cities are not easy to locate and acquire without hard efforts and long journeys.

Also, materials presently not included in the Library and Reading Promotion Act, in particular electronic publications should be included under bibliographic control in apprehension of law revision. The legal deposit of electronic material depends on copyright regulations concerning electronic materials and its short life cycle. According to the copyright law revised on 2003, it is not easy to use the electronic publication since there are many restrictions for the number of simultaneous users at the libraries and the available publications by the date of publication and its sale. The date of submission should be different for the electronic publication since it

can be easy to transmit and it does not take a long time to send. Probably the submission of the electronic publication within two weeks of publication will be enough.

In 1992, Korea Electronic Publication Association (KPEA) was established for the exchange of information and development of the electronic publications, standardization and certification. The objectives of the association are to promote the electronic publishing industries and to contribute its development of information society. In 1998, Korea Electronic Publishing Certification center (KEPCC) was also established for promoting the industries, and raising the social recognition by attaching the certified mark on the electronic publications.

In July 2004, KEPA has chosen as an institution for submission (legal deposit) of the electronic publications. So KEPA has run the Korean electronic publication deposit and certification system since August, 2004. The system is an online system to get legal deposit and certification from KEPCC through the consideration of the Ministry of Culture and Tourism and Korea Publication Ethics Commission. However, most of all the materials submitted are mainly e-books. Therefore the present control of the electronic publications is one of the responsibilities of KEPA. It points out that the collection of the National Library of Korea does not reflect the whole of the national publishing output. The legal deposit data and related statistics have not opened to the public yet. The association plans to provide them in this summer of 2006. Since KEPA is in charge of the legal deposit and certification system for electronic publications, the National Library of Korea should cooperate and communicate with the association about the bibliographic control for electronic publications and inclusion of those publications in the national bibliography.

The National Library of Korea pays compensation for the legal deposit of two copies when the publishers or production request it within 90 days in return for the submission. In case of negligent submissions, according to Article 53, Item 3 of the Library and Reading Promotion Act, fine up to 10 times of the prices would be imposed. Therefore a preparation of more effective legislation with efforts to encourage to deposit and remind of the importance of the legal deposit are needed. This system allows the National Library of Korea to carry out its duty of collecting, preserving, and enabling public access to the nation's documents. Presently, the act does not include legal deposit of electronic material in detail. A lot of offline and online electronic publications and dynamic digital information are easy to be excluded for the categories of the legal deposit. The lack of control mechanism to ensure enforcement of the law has led to the impossibility of exhaustive completion of the Korean publications and this has also come an obstacle for the compiling of the complete Korean National Bibliography.

Furthermore, there are many other acts such as National Assembly Library Act, Korean Education and Research Information Service Regulations, Publication and Printing Promotion Act, Film Promotion Act to force to submit materials to the deposit institutions. Therefore, it can be a heavy burden for the publishers and producers to submit all required copies to the deposit institutions and the publishers are easy to fail to fulfill their duty in the end. As Yoon (2000) suggested, there should be some consideration of the number of copies to deposit for expensive materials and electronic publications. There is a need to reduce the number of copies required by law, to provide for tax exemptions in favor of publishers and producers, to define the obligations of the repository institutions and to update the sanctions for non-respect of legal obligations.

The Library has increased its acquisition of publications from national and local institutions by utilizing the National Archives & Records Service's Government Publication Records database. The Library also uses the large bookstore's sales records such as Kyobo Bookstore's sales records to investigate materials that have not been received. However, a strong grip of the publishing and producing information source and location is impossible to do with a lack of the personnel in the Library.

So the Library has provided administrative guidance and built cooperative relationships with five regional libraries (Busan, Gwangju, Daejeon, Daegu, and Incheon) to carry out its deposit duties for the publications from those regions since 1997. However, without additional financial, administrative support for those libraries and the convenience of the legal deposit for the publishers and producers, it cannot be continued successful. Therefore, the National Library of Korea actively receives deposits through onsite inspections and visit to collect materials. For example, based upon the comparison of bibliographic records at Korean Assembly Library, KOLIS-NET, KERIS, Korea Institute of Science and Technology Information (KISTI), and Scientific Technological Information Management Association (STIMA), all the materials are checked and the Library tries to collect them continuously. But it is very hard to do since many publishers and producers are closed, sometimes, no addresses are found, or the publications are out of print.

Korea expects that other revisions will be passed by national legislatures in the near future again and the National Library of Korea is currently planning to carry out a special project "Collecting all national knowledge information by strengthening legal deposit system" The project consists of three parts - the first one is developing the legal deposit system through revising the Library and Reading Promotion Act, the second is managing the cooperating system between publishers and National Library of Korea for legal deposit revitalization, and the third is surveying the materials that have not deposited legally and strengthening the public relation activities of legal deposit. Based upon the results of the study, National Library of Korea is going to plan for the next years in terms of major changes in the area of bibliographic control and legal deposit.

One of the central changes will be to extend the legal deposit system to cover all types of electronic materials. That's why the National Library of Korea examines existing deposit legislation and considers its provisions in relation to present and future requirements. Korean legal deposit acts will include "newer" material such as electronic resources and the existing legislation should be revised where necessary. A future revision will be necessary for specifications regarding legal deposit of electronic resources such as e-book and e-journal. And there are also problems related to the number of copies and the enforcement of the law. The number of copies can be different according to the nature, format, number, and price of the publication. A revision is expected within the new few years.

The future act will cover both static and dynamic online publications and aim at minimizing efforts required on the part of the library and publishers. This clearly demonstrates that National Library of Korea is conscious of the need to bring all the current national output under bibliographic control; naturally National Library of Korea that already had most of it under control marked the inclusion of electronic documents and online publications as a definite area for revision. This shows an awareness of the need to revise legislation in accordance with the ICNBS recommendations, paragraph 1: "States should, as a matter of urgency, examine existing deposit legislation and consider its provisions in relation to present and future requirements, and, where necessary, existing legislations should be revised." The

revised act should comprise all forms of published material irrespective of medium. Korea will have changes that are fully in agreement with the ICNBS recommendations.

The National Library of Korea is going to have a strong legal deposit campaign, since publishers are often ignorant or are not fully informed about their obligations that they are fined 10 times of the fixed price of the materials as penalty when the publishers do not provide the legal deposit copies. However, this is not a heavy penalty for defaulting on the legal deposit act. Therefore this shows that the ICNBS recommendation to 'include measures for enforcement of the laws' is indeed necessary but it should be strong enough to observe it.

Budget restraints and lack of staffs of the National Library of Korea are still obstacles to maintaining a satisfactory legal deposit system. The Library is working hard to overcome these problems. Therefore the organization of the National Library of Korea has changed to provide a proactive acquisition and information service of the new materials since the end of 2004. At the same time, new legal deposit agent system has begun. Publishers submit to the legal deposit agent when they publish the materials and the other agent makes MARC, checks ISBN and constructs the database for classification, contents, and full-text. The incorrect ISBN of the book is sent to ISBN center in the National Library of Korea and the notification of the correction is sent to the publisher. When the material and the constructed DB are deposited to the National Library of Korea, the Library provides information service to the users after doing the quality control of the classification, assigning subject headings, and making authority MARC. So the time for cataloging and preparing the materials was shortened from 1-3 months to 1-2 weeks, and about 10 staffs were relocated to do more professional work and research. After beginning this program, bibliographic information through the National Library and Information Network is provided quickly to the libraries throughout the country. And the acquisition information and standardized catalog, title and contents information are provided to the librarians and provided a foundation of improving information service to the users and a cooperating system among the publisher, legal deposit agent, the National Library of Korea and finally, it contributes the consistent expansion of registering the materials and the activation of distributing the bibliographic information.

The legal deposit materials are registered as national materials to be preserved permanently, and those are used for informing Korean culture in the world by publishing national bibliography as well as providing access of the materials to the nation. About 70% of the collection in the National Library of Korea consists of the materials from legal deposit system. The number of the legal deposit materials are 4,128,694 among 5,786,393 the total number of collection in March 31, 2006.

However, the recording of the entire national output is a breathtaking task that implies that the National Library of Korea should have comprehensive resources. So some legislation may take into account the possibility of sharing responsibility for deposit among more than one national institution. So quite often the responsibility for legal deposit is shared with other institutions. This is also the case in Korea. For example, films produced for public showing is the responsibility of the Korean Film Archives where a depository for films and videos and electronic publications is the responsibility of the KEP A. So the responsibility of dissertations, recording films and electronic publications is shared with other institutions. It suggests that there is a need for a new model for the comprehensive bibliography, incorporating records contributed by a number of agencies.

When the catalog data of the collection in the National Library of Korea is compared with

KOLIS and KERIS Union catalog, there are so many materials that are not collected. There are many valuable materials that were published a long time ago and easy to be damaged and disappeared. For collecting those kinds of materials, the National Library of Korea has made a special program “Sunshine your books in your attic” since 2004. This program is a donation program and its purposes are expanding national collection, providing information service to people as a national information center, and strengthening the National Library of Korea as a last preserving institution of the publications in Korea. So the National Library of Korea preserves the materials that are not collected and sends the materials that have already collected by the Library to the public libraries, prison libraries, small libraries, hospital libraries, and military libraries where the materials are needed as a recycling of knowledge resources. Famous people joined the program actively and book donation culture began to spread and over 100,000 materials were donated to the library and about 20,000 materials among them were materials that were not collected by the National Library of Korea at the end of 2004.

Classification and Cataloging System

The bibliographic records included in the national bibliography should be based on international standards and arranged in an appropriate manner and with access points that satisfy the needs of the users, in accordance with the characteristics of the format used for distribution. And the national bibliographic agency should be proactive in updating and maintenance of existing standards and principles and in the development of new bibliographic tools. Therefore, the classification and cataloging system should be consistent and easy to use since it provides the availability of the material and collocation of the related materials. In Korea, the system most widely used is Dewey Decimal Classification (DDC) and KDC. Korea has developed the KDC that was modified from the DDC. It is used by National Library of Korea, the national bibliography, and by most public libraries and school libraries in Korea.

East Asian books include Korean books (general books, children’s books, textbooks, educational books, and comic books, etc.) and Chinese and Japanese books are cataloged according to both the KDC, 4th ed. and the DDC, 21st ed. Chinese books, Japanese books, children’s books, textbooks, educational books and comic books are classified according to the KDC while Korean old books are classified by the Korean Decimal Classification by Pak Bong Suk (KDCP). In addition, the book call numbers for East Asian books are assigned according to the East Asian Author Table published by the National Library of Korea with the exception of periodicals. Non-book materials are classified according to the KDC 4th ed. and the call numbers are assigned according to their date of receipt.

Western books and periodicals published abroad are classified according to the DDC, 21st ed. while western language books published in Korea are classified in both the KDC and DDC. Non-book western language materials are classified according to the KDC, and their call numbers are assigned according to the Cutter-Sanborn Three-Figure Author Table.

In Korea, cataloging is done according AACR and ISBDs. Korean Cataloging Rules (KCR) includes several ISBDs to the description of it. The part of AACR2 concerning heading, uniform titles and references is also incorporated in the national rules. The 4th edition from 2005 is a revision aiming at clarifying the relationship between cataloging and access points. The concept of main entry no longer exists and there is no longer a restriction on the number of entry elements. In connection with cataloging for national bibliography the alternative “rule of three” was used restricting the number of entries.

Korea developed national MARC in early days of library automation. The National Library of Korea developed the Korean Machine Readable Cataloging (KORMARC) format for monographs in 1981, for serial publications in 1984, and for nonbook materials in 1991. The former two formats were revised in 1991. KORMARC, a standardized tool for processing publication information, and established the rules as Korean Standard (KS).

The Library catalogs its books according to the following rules: East Asian books are cataloged according to the Korean Machine Readable Cataloging (KORMARC) for books (KS X 6006-2, 1993), non-books are cataloged according to KORMARC for non-book resources (KS X 6006-3, 1996), periodicals are cataloged according to KORMARC for periodicals (KS X 6006-1, 1995), and old books cataloged according to KORMARC for old books (KS X 6006-6, 2000). In addition, keyword information such as title and table of contents are extracted from the materials. The authority records of East Asian books are cataloged according to the KORMARC for authority data management (KS X 6006-4, 1999). Western language books and periodicals are cataloged according to AACR2 and their data formats are according to the KORMARC rules. Non-book materials are cataloged according to the rules of the KORMARC for non-books (1996). In 2004, KORMARC for Unified bibliography was developed and introduced. Sooner or later, it will be one Korean Standard for recording bibliographical information of four different types of materials, i.e., books, non-books, periodicals, and old books.

Beginning in 2003, catalog information has been entered on a trial basis according to the subject headings table developed in 2002, and over 57,000 items had been assigned subject headings by the end of December 2004. Authority data exists to provide uniform standards for recording heading information (personal names, organization names, uniform names, subject heading, and place name, etc.) so that the important search function of a catalog can be performed. The National Library of Korea had used a card catalog system for recording information according to authority table until 1999. After the development of Authority Controls for KORMARC became as a Korean standard in 1999, the Library began to create its catalog with authority records.

Library Digitalization Project

The National Library of Korea launched image information service of academic resources in 1995 and laid the foundation of digital library construction through the pilot project for building a digital library in 1997 and the project for linking major domestic libraries in 1998. In addition, it has continued the efforts for building the DB since 1998 until now.

A special Presidential Directive on February 2000 established a comprehensive plan for the creation of a library digitalization project to allow the National Library of Korea to become a key facility for meeting the public's demand for knowledge in an information society. The National Library of Korea is concentrated on building a digital library in an attempt to satisfy users' needs for obtaining necessary information in timely manner in rapidly-changing information environment. A digital library means the information service system that collects, processes and distributes digital multimedia resources on the basis of computers and communications networks to provide users with high quality information without any limit in time and space.

The National Library of Korea formed an integrated national digital library system by connecting the major seven domestic institutes, which are the National Library of Korea, National Assembly Library, Korean Research and Development Information Center, KERIS,

KAIST Science and Technology Library, KINITI, and Supreme Court Library of Korea. Based upon the construction of the integrated system, the library suggested a basic model of digital library for offering one-stop information service for users.

The project to expand the digital contents in 2004 added 1,600,000 entries (total of 16,600,000 entries) to the National Union Catalog Database, over 60,000 books to the Table of Contents Database, over 30,000 books to the Full-text Database and over 200,000 entries to the Article Index and Abstracts Database. The project also performed over 5,000 media conversions of non-book materials, and added over 2,000 full-text books to a database for the visually impaired.

In 2005, over 4430,000 bibliographic data and about 1,735 location data are serviced through the KOLIS-NET and homepage of the National Library of Korea. The construction of a database for the National Union Catalog can make possible a complete search of materials stored in public libraries and government reading rooms around the country. The creation of the National Union Catalog's database has improved the quality of the nation's bibliographic information by allowing all public libraries in Korea to reduce their personnel and expenses through the compilation of a cooperative catalog and by standardizing the cataloging process.

The National Library of Korea provides more accurate bibliographic information by the table of contents database. It provides better information service to users by expanding the information access point from catalog to contents and it is available through the National Library of Korea's homepage and through the National Digital Library. The Library has developed the ability to download the table of contents of books from the Library's homepages to encourage the use of this information in public libraries throughout the country. By 2005, over 1,240,000 books' contents information was constructed.

The National Library of Korea will continue its further efforts in building a domestic original publication DB and service in order to promote rapid acquisition, activation of inter-state information exchange, and permanent preservation of national resources. And the National Library of Korea will continue to identify, collect and provide a diverse range of materials to fulfill its duties as a library that represents the nation. The Library is making an effort to contribute to the expansion and improvement of the entire information infrastructure of Korean libraries.

Conclusion and Recommendations

Bell (1998) expressed that a current national bibliography was a mirror that reflected the culture, character, and current interest of a country by listing its publishing output. Not only does it serve as an historical recorder, but also when distributed to other countries, it serves as a 'window' to that country. One of the main tasks of the National Library of Korea is to develop and standardize bibliographic records and formats. The National Library of Korea tries to present a new model for bibliographic records to improve the cataloging process and recommends international issues to keep in mind when establishing basic standards for national bibliographies. Also the Library is preparing to provide recommendations, models, and international standards for the creation, revision, and functional requirements of bibliographic formats and databases. The National Library of Korea will help to prepare for changes in the function of bibliographic records within the online environments and contribute to establishing standards that can keep pace with the developments in international standardization.

Generally speaking, the status of bibliographic control in Korea has recently developed remarkably, and has achieved a certain standard. It may be a natural phenomenon following the advancement or development of a country, which can partly be gauged by its knowledge production. It was quite satisfying to see that major changes have taken place over the past years in terms of the extent and format of the national bibliography, national union catalog, legal deposit and other bibliographic control in Korea. It is perhaps even more satisfying to report that there are comprehensive future plans in this field.

It is best illustrated the following facts:

1. The National Library of Korea acquires materials through legal deposit and is committed to producing national bibliographies.
2. Korean National Bibliography is becoming increasingly diversified in terms of including different types of materials, but there is still a clear emphasis on text formats. Future plans should include adding more formats to the national bibliography.
3. The format of the national bibliography has been changing from print to Internet to a certain extent and that this trend will continue and even accelerate in the years ahead. DVD is a format for the annual national bibliography and internet access is available for the weekly national bibliography in Korea. There is an increased focus on online and Internet access as the main format of the national bibliography.
4. The bibliographic records included in the national bibliography are based on the international standards and arranged in an appropriate manner and with access points that satisfy the needs of the users.
5. KOLIS-NET, a national library and information system network, is operated, it makes the sharing of the National Union Catalog and it provides a firm basis for expanding the electronic library system and providing the public with this service.
6. The National Library of Korea formed an integrated national digital library system by connecting the major seven domestic institutes and is building databases for article indexes, abstracts, and non-book items, and creating a comprehensive bibliography and full-text database for the visually impaired.
7. According to the Library and Reading Promotion Act revised in 2003, two copies of all the documents published or produced in Korea should be submitted to the National Library of Korea within 30 days from the date of publication or production. The Library pays compensation for the legal deposit of two copies when the publishers or producers request it within 90 days in return for the submission. They are fined 10 times of the fixed price of the materials as penalty when the publishers do not provide the legal deposit copies.
8. Electronic publications are subject to legal deposit in KEPA. Korea needs to make changes in Library and Reading Promotion Act to include electronic documents in particular and that the national bibliographies should reflect these changes.
9. The National Library of Korea has begun new legal deposit agent and MARC database outsourcing program since 2004.
10. About 70% of the collection in the National Library of Korea consists of the materials from the legal deposit system.
11. The National Library of Korea is currently planning to carry out a special project "Collecting all national knowledge information by strengthening legal deposit system."
12. Within the next few years, National Library of Korea will have benefited from new legal deposit acts and included more material under bibliographic control. More comprehensive legal deposit legislation will be introduced for the role, content,

selection criteria, level of description in the national bibliography.

Within the next five years, National Library of Korea will have over 10 million collection and will be benefited from new legal deposit acts and included more materials under bibliographic control. It will be an agenda in Korea to complete the legal deposit act in relation to online publications. The national bibliography will become more diversified, and the National Library of Korea will continue to publish Korean National Bibliography in DVD and make them available on the Internet. However, the need of the printed issue should be considered for the needs of users with no electronic access as well as a preservation copy of the bibliographic records for the specified period.

Since the percentage of inclusion of e-material is getting more and more in the future and we must prepare it in the system. There is a need to discuss cooperation among libraries and publishers, KEPA and publishing trends, emphasizing the problems connected with e-books. E-books certainly belong to the publishing output of Korea and should be included in the national bibliography. The National Library of Korea should collaborate with e-book publishers and KEPA, taking on the responsibility of archiving their electronic books and providing readers with access to them.

National library should acquire, archive and access all the materials published in the country based upon the legal deposit. The main purposes of the legal deposit system are to hand the cultural heritage of the nation down to the next generation effectively and to preserve it exclusively by collecting them safe. The important aspects of the legal deposit system are the systematic acquisition, access, and use of the publication, its production and distribution of the national bibliography, making statistics for national publications, protection of the copyright law, succession and preservation of the knowledge and culture of the country.

Therefore, the National Library of Korea should collect all the materials published in Korea, satisfy the information needs of the citizen, prepare the national database, and make its collection available to all generations. So the legal deposit system should be strong enough to play major roles of the national library and the legal deposit act will be a basis for the effective compilation of the national bibliography. And also, the storage and preservation system for the national library should be stable. Otherwise, the accessibility of the materials will be lowered and the secure preservation cannot be accomplished.

In analyzing these phenomena and tendencies, we feel that recent changes and plans in the Korean National Bibliography are going in the right direction. The traditions of the country in this field, the dynamic development of the information society, as well as the rapid changes in Korean social condition lead us to believe in the future development of the system.

The Korean National Bibliography will discover, identify and record all publications produced in Korea, in order to build up the national library and archival collections and satisfy the information needs of the nation, and continue to the development of an integrated library, documentation and archival infrastructure.

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