

NATIONAL DIGITAL LIBRARY INITIATIVE IN KOREA

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ABSTRACT

In order to create a library use environment adequate for the Digital Age, the National Library of Korea has created a physical structure which provides collection, organization, preservation and information viewing services and the Dibrary portal which is an integrative search environment of digital resources. The National Library of Korea has prepared selection policy for the collection of digital resources and established a cooperative network for the sharing of digital information to lead cooperative works between domestic and foreign institutions and provide 116 million numbers of digital contents via Dibrary main portal and 4 sub portals (Regional, Policy Information, Multicultural and portal for the Disable).

Keywords: Digital library; National Library of Korea; Korea

INTRODUCTION

As Window 95 was introduced, internet use environment was supplied through personal computers, and with the advancement of network communication, form of information use has been changing drastically. Moreover, the advent of portals such as Yahoo, Google and so on has brought convenient and integrated information use for the users around the globe. Information environment is continuously advancing through portals which integrate rapidly growing numbers of websites and blogs, cafes, UCCs and other mediums where users are actively participating.

Libraries, until the 20th century, were clearly the core institution for information, and users visited libraries in order to use the information. However, trend of information use had taken a huge change due to a sudden appearance of the digital age which has only been for about 10 years.

The National Library of Korea had propelled for the establishment of the Digital Library with intention of finding new ways to play the core role of information in the Digital Age. On the contrary to the Digital Library only remaining in the cyber world, the National Library of Korea, on the larger scale had taken two approaches, providing physical space and cyber space, in the direction of the

establishment of the Digital Library to create a library use environment which fits the Digital Age.

The first was to construct a library designated for collecting, organizing, and preserving digital information resources and providing access to digital content to users. The second was to establish the "Dibrary" portal site as a new library paradigm that enables integrated searching of content stored in the digital library. "Dibrary", the new name for the National Library of Korea's digital library is a blend between "digital" and "library". Operating under the slogan "Nature, people, and information together" and adopting the characters D.to, U.to, and N.to as mascots, Dibrary strives to become a library that reaches out to users.

DIBRARY: MISSION AND GOALS

i) Dibrary's mission

The mission of Dibrary is to contribute to boost people's access to information by providing access to high-quality information from all around the world to everyone, anytime and anywhere, and by establishing a space for viewing digital information as well as for lifelong learning and studying.

ii) Dibrary's goals

- a) Provide an integrated information service environment where all Koreans can access high-quality information anytime and anywhere.
- b) Establish an open system that enables convenient and equal access to information and encourages voluntary participation.
- c) Provide various reference services and information literacy services to maximize the usefulness of information for users in a rapidly changing digital environment.
- d) Provide support for systems and services for social classes with limited access to information or those living in areas with limited access to information such as the disabled, immigrants, senior citizens, foreigners, and low-income households.
- e) Contribute to worldwide distribution of knowledge and information through cooperation with other digital libraries and content services in Korea and abroad, and maintain uniqueness and identity as Korea's representative digital library.
- f) Establish a management system for establishment of the operating organization and resources for the digital library.

Integration and openness are the key words to achieving Dibrary's mission and goals. Integration refers to the integrated management of high-quality digital information scattered among digital libraries in Korea and abroad,

while openness refers to the pursuance of an open system that enables access to Dibrary information resources as well as user participation.

Integration is a concept for internal issues and management, while openness covers external and service-related issues. Therefore integration and openness are not concepts that stand alone by themselves: Both closely interact to create Dibrary services. In addition, integration and openness are the key means for enabling information-sharing and user participation. They contribute to boosting Koreans' information literacy by providing an environment where everyone can share information and participate. This in turn will be the foundation for establishing Korea as a "Knowledge Powerhouse," as well as the bedrock for realizing a knowledge-based society.

iii) High quality integrative search : Dibrary portal

The Dibrary portal platform, as displayed in <Figure 1>, is built around the key ideas of search, share, participation and application. First, Dibrary will incorporate an integrated and user-friendly search system for its collection of books and contents. Second, it will realize a user-participation system based on openness, sharing, and participation that enables production, sharing, and reproduction of information. Third, it will establish a global platform for the distribution of knowledge and information through cooperation with digital libraries and content services in Korea and abroad. Fourth, Dibrary will establish a model for boosting the information-poor classes' ability to use information and realize the concept of information welfare by providing a space for information-sharing as well as training programs on information usage and information service.

The Dibrary portal consists of a main portal site and four specialized sub-portals - regional portal, policy information portal, multi-cultural portal, portal for the disabled.

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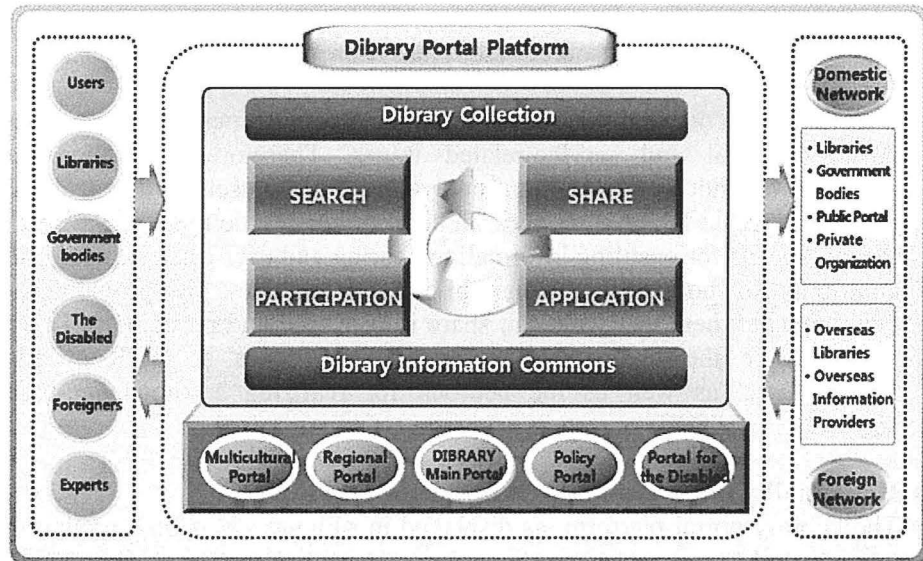


Figure 1: Portal service organization

iv) Dibrary's main portal

The main portal provides an integrative access point to the four sub-portals and provides search on 116 million digital contents. Additional information services provided by the main portal includes meta-webzine, meta RSS, Blogs, Ask a Librarian and so on.



Figure 2 : Main Page of the Portal

Regional portal

The Regional Portal seeks to assume the role of a meta-portal for regional information by linking together regional knowledge and information content, securing collections produced by, on, and for use in each region, and establishing an integrated search engine for regional knowledge and information produced and managed by the region.

Policy information portal

The goal of the Policy Information Portal is to effectively collect digital information produced by government agencies and affiliated organizations, local governments and related institutions, maximize the utilization of policy information by enabling the sharing of policy information resources among government departments, and enable general users to systematically search and view full version of texts on policy information.

Multi-cultural portal

The goal of the multi-cultural portal is to provide a place for cultural communication among those living in Korean including Koreans, immigrants, multi-cultural households, foreign students who come from different cultural backgrounds, continuously expand the database of multi-cultural information through cooperation with public agencies and civic organizations that provide multi-cultural issue-related information, and promote understanding and communication with different cultures. The multi-cultural portal provides services in seven languages (Korean, English, Chinese, Japanese, Thai, Vietnamese, and Filipino)

Portal for the disabled

The goal of the portal for the disabled is to consolidate disability-related information dispersed among university libraries and specialized libraries to enable integrated searching and access to source text to disabled, and continuously collect related information and establish a system for providing the information via online or specialized devices for the disabled

v) **Contents of Dibrary portal**

Criteria for content selection

The migration of information from print resource to digital resource is intensifying as distribution of information via the Internet becomes widespread. The National Library of Korea, aware of this trend, is exerting efforts to transform itself into a digital media. But digital resources in the Internet are not only vast in amount, a significant amount of them are useless. Therefore, it is important for the digital library to establish criteria for collecting and servicing digital information. And because it is important

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for Dibrary to efficiently collect high-quality information necessary for achieving its mission and goals, it may adopt the following criteria:

- a. Scope of content
The scope of the content collected and serviced by Dibrary includes born digital information or all forms of digitized information to be serviced by the library via the Internet.
- b. Criteria for collection
 - Resources that can be guaranteed of their authenticity and quality
 - Usability, academic value, expertise of the information, author reputation, etc.
 - Recency, ease of access, uniqueness of the information provided, frequency of update, etc.
 - Resource with value as information
 - Comprehensive collection of resource regardless of form or topic
- c. Priority collection targets
 - Digital information resources produced by public agencies, academic societies, universities that have academic value (university publications, proceedings, e-journals, etc.)
 - Digital information with academic value produced by associations and non-profit organizations
 - Digital information with academic value produced by private
 - Other resource with value as information
- d. Resources excluded from collection
 - Blog sites: Websites that post personal opinions without theoretical basis
 - Discussion lists, chatting sites
 - Discussion boards and news groups
 - News sites
 - Online daily newspapers that already exist in printed form
 - Advertisement sites

DIBRARY SERVICE CONTENT TYPES

Contents serviced via the Dibrary service are selected based on quality without regard of the type of format of the contents. The digital content provided through the digital portal include all types of formats from image files (PDF, JPG), text, video files, sound files to web pages. The following is a description of content types in the categories serviced by Dibrary.

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- Scholarly information
 - Book information, book covers and table of contents, catalog information, book reviews and suggestions, information on purchasing books.
 - e-books, webzines
 - Dissertations
- Expert Information
 - Records, Cultural contents, Scientific Technology Information, Standards, Patents
- Public's political information
 - Digital content produced by Government offices and public agencies
 - Public's political reports, annual reports, statistics, and other content
 - Documents of foreign governments
- Regional information
 - Digital content produced by local governments and local public agencies (libraries, museums, cultural institutions, etc.)
 - Local research study reports, annual reports, statistics, local policy material
 - Material on regional areas, local news, regional culture, regional information, etc.
- Overseas information
 - Open information produced by OAI institutions - universities and public agencies
 - Overseas academic conferences, overseas academic papers, etc.
- Multi-cultural information
 - Multi-cultural news, everyday information, cultural information, policy information related to multi-cultural issues
 - Multi-cultural issue-related website, webpage
- Information for the disabled
 - Legal information, statistics, research study reports concerning the disabled
 - News on disability-related issues, information on rehabilitation, everyday information, education information, traffic information
 - Websites and web pages for the disabled
- UCC
 - Registration and sharing of scholarly research and original work
 - Reports, theses, original work, educational and cultural programs, etc.

SPACE FOR THE VISITOR'S AT THE DIBRARY

Space for the visitor's at the Dibrary provides all services users need. Future-

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oriented facilities and service strategies and systems are in place for this reason. It uses a high-tech library service model to satisfy user's information needs.

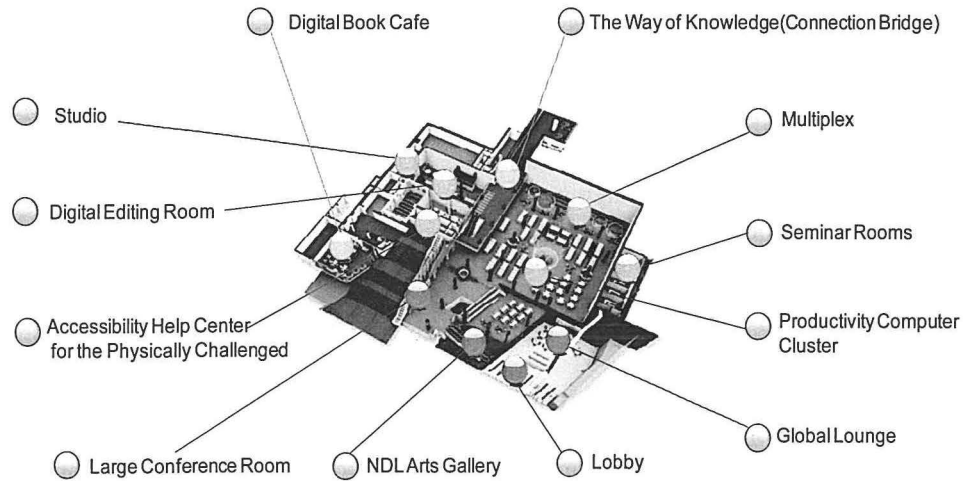
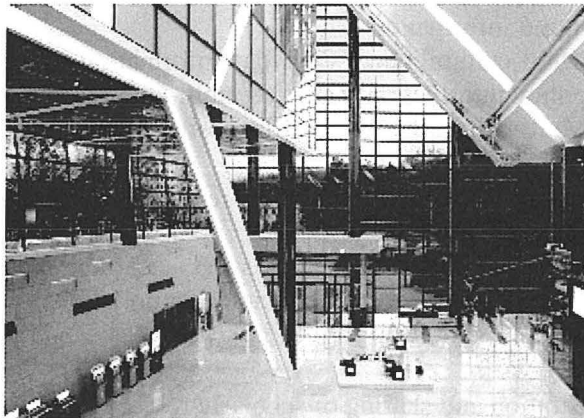


Figure 3 :Floor Plan of the Dibrary

Lobby

Upon entering the main gate, there is a lobby, information desk, ID registration Room, Locker Room, and users can enjoy various motion picture contents on the multi-display wall and using AMOLED, the stated of the art technology, "the Garden of Knowledge" displays nature motif images to greet users. Digital Newspapers are provided for users to conveniently read using touch screen.

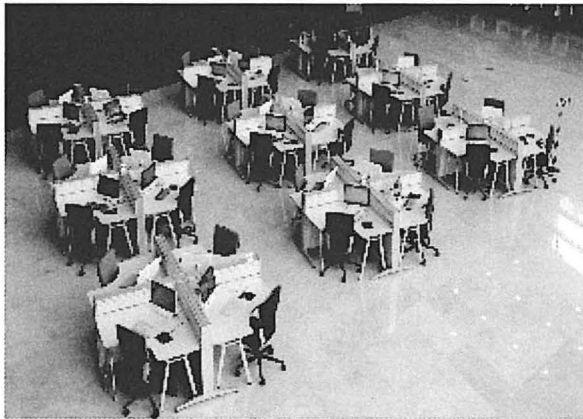


Global Lounge

This space is catered to foreigners use. 32 computers allow users to search information in 5 different languages - English, Japanese, Chinese, French and

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Vietnamese. Users can touch the screen to change channels and view from 4 PIP satellite TVs.



Productivity Computer Cluster (Digital Reading Room)

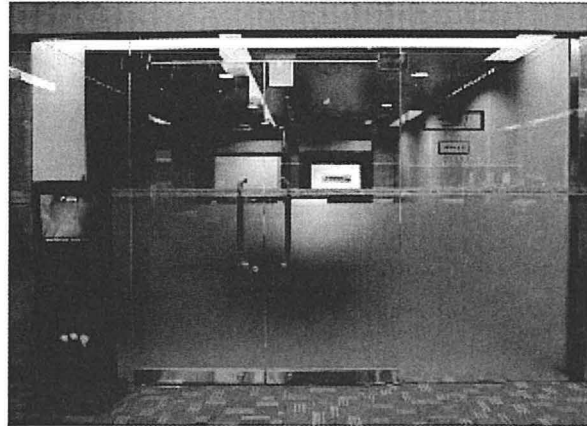
This area has 210 individual seats, 30 multi-task seats with three monitors and 12 32-inch monitor seats for users working with graphics and other works which require the use of larger monitors. Users can search for information, search the internet and edit documents, images, and videos using multimedia editing programs.



Seminar Rooms

There are 8 seminar rooms available; 5 rooms can accommodate up to 16 people and 3 rooms can accommodate up to 9 people. These rooms are equipped with state of the art solutions such as LCD monitors, projectors and electronic boards.

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Digital Editing Zone and Media Center

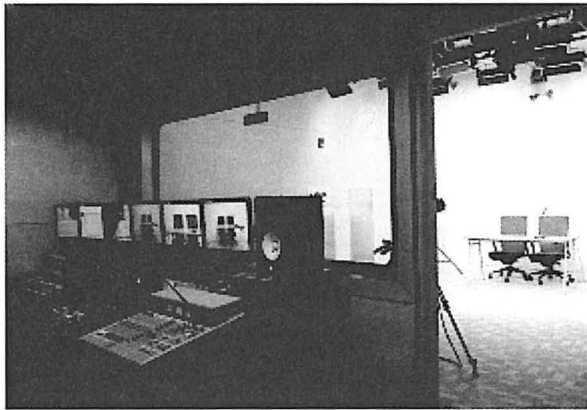
The Digital Editing Zone in the Media Center has 20 seats available for users to edit various digital contents using professional editing tools. Media Center has 40 seats available for users to view various multimedia contents of the NLK. Users can rent multimedia contents from the information desk in the Media Center.



Video/Sound/UCC Studio

Users can film and edit video/sound/UCC at the studios in the media center. Prior reservation is required for the use of the studios and instructions and devices are provided by the Digital Library.

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Accessibility Help Center for the disabled and elderly

In order to provide users with disabilities with same level of knowledge information services as other general users, 20 seats in this space are available for the disabled and elderly equipped with various assistive technologies to cater to each users for their convenient use of information. Exclusive assistance is available to provide help with instructions for the use of devices.



Multiplex

These four cylinder-shaped multiplex spaces can accommodate up to 12 people and with large touch screens, users can watch multimedia VOD and enjoy rented DVDs.

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Lap Top Zone

This is a space where users can bring their own lap tops and access the internet using the wired and wireless network installed both inside and outside the library.



IPTV Zone

There are 5 IPTVs (Internet Protocol Television) sets and users can choose shows to watch from a list of programs.



COOPERATIVE DIGITAL INFORMATION-SHARING NETWORK

The Dibrary Cooperative Network is a cooperative system for sharing digital knowledge and information established to respond to the emergence of a new digital information environment and high-standard demands from users that form the basis of its information services. The Dibrary Cooperative System is the operating system for the National library and partner institution participating in the cooperative digital information-sharing network, while the Dibrary Information Service seeks to provide Library 2.0 services through the Dibrary Cooperative System.

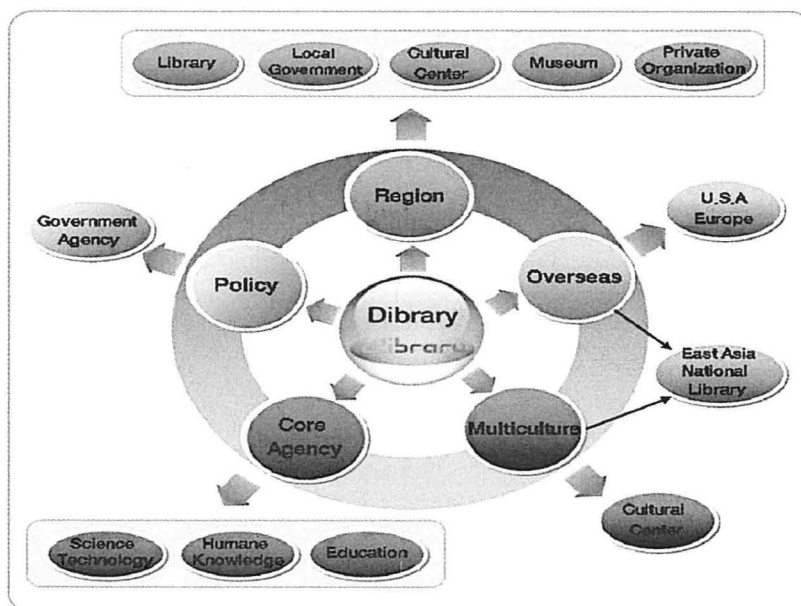


Figure 4: Dibrary's basic cooperative model

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The Dibrary cooperative model, as displayed in [figure4], has “Dibrary” at the center, surrounded by “key partners”, and partner institutions affiliated to the key partners that form an indirect cooperative link. The “National Library of Korea” focuses only on cooperation with "key partners" that are in turn linked with numerous partner institutions to enable efficient execution of its cooperation policy.

The main cooperative network consists of large institutions that possess scholarly information (National Library of Korea listings and source texts, domestic journals, dissertations, Naver book information), specialized information (national documents, national knowledge portal, culture portal, patents, standards, etc.). The regional cooperative network consists of libraries, museums, art galleries, culture centers, cultural and arts centers, (16 municipal and provincial) local governments, and other organizations. The policy cooperative network consists of public agencies (government agencies, investment agencies, research institutes, committees, affiliated institutions). The multi-cultural cooperative network consists of multi-cultural issues-related organizations (Ansan Immigrant Center, Korea Migrants' Center), East Asian national libraries, embassies in Korea, and overseas culture centers in Korea. The overseas cooperative network consists of OAI participants, overseas national libraries, and various information providers. The cooperative network for the disabled consists of disability-related agencies.

CONCLUSION

Dibrary will realize integrated searching of collections and cultural heritage preserved at digital libraries in Korea and abroad. In Korea, it will establish itself as a leader and pioneer in the area of digital libraries for public libraries, university libraries, and specialized libraries, while abroad it will assume the role as a gateway to high-quality knowledge and information. Meanwhile, Dibrary aims to become a user-oriented interactive digital library that provides an easy-to-use search environment and services based on its vast amount of high-quality data encompassing various fields to become the hub for Korea's transition into a knowledge information society.