DIGITAL LIBRARIES IN THAILAND

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Abstract. This paper surveys university libraries, special libraries, public libraries, the National Library and school libraries in Thailand about their digital collections and services.

Introduction

The National Electronics and Computer Technology Center (NECTEC) established the Thai SchoolNet in 1995 to mark Thailand's IT year. The aim was for every school to have access to the Internet. Programs for content creation and activities were initiated to promote the use of the Internet in teaching and learning, as well as to add teaching materials to the digital library on SchoolNet (Boonyamalik, 2004). Students were also invited to participate in the creation of learning materials on the SchoolNet website. On the other hand, colleges and universities were connected to the UniNet (Inter-University Network) in 1997. The UniNet is the national network administered by the Office of Information Technology Administration for Educational Development, Ministry of University Affairs, which was later merged to the Ministry of Education.

In 2002, the Ministry of Information and Communication Technology was established. One of its policies is to be the center of demography, economic and social information accessible over the Internet and to promote the use of ICT for business and for information searching (Ministry of Information and Communication Technology, 2003).

Meanwhile, other government and private organizations, including libraries, developed their IT infrastructure and established websites. Many of them provide very useful information on various subject fields and also offer helpful services, but some lag far behind.

To understand the state of digital libraries in Thailand, this paper surveyed university libraries, special libraries, public libraries, the National Library and school libraries about their digital collections and services.

Related Works

Definitions of "Digital Library"

- Collection of texts, images, etc., encoded so as to be stored, retrieved, and read by computer (University of Arizona, 2005)
- The meaning of the phrase digital library varies tremendously, but one simple definition is the use of computers to store library materials appearing in electronic (digital) format (Harvard Law School, 2004)
- Digital libraries can include reference material or resources accessible though the World Wide Web. Digitized portion of a library's collection or original material produced for the web can also be included in a digital library (Canada. Library and Archives, 2004)
- A digital library is a library in which a significant proportion of the resources are available in machine-readable format (as opposed to print or microform), accessible by means of computer. (Wikipedia, 2006)
- An integrated set of services for capturing, cataloging, storing, searching, protecting, and retrieving information (World Technology Evaluation Center, 1999)
- A managed collection of information stored in digital formats and accessible over a network (Arms, 1995).

Collections and Services

The Digital Library Federation (2006) states that in the digital library, collections are transformed through the integration of new formats, licensed content, and third party information over which the library has little or no direct curatorial control. To Arms (1995), digital libraries hold any information

that can be encoded as sequences of bits -- text, images, music, sound recordings, specification and design, etc. In his work, Arms used *content* in the sense of *library materials*, not as bits and bytes to be processed by a computer but as information that is of interest to users.

To make digital libraries serve users effectively, missions are to be set and performed accordingly. Borgman (2003) suggested that digital libraries should match and dramatically extend traditional libraries, and should be more than search engine portals by taking a role in the selection of resources that are creatively relevant to their mission. Services should include resource searching that meets the needs of their target community, without the limitations of space and media. They should be collaborative and allow users to contribute knowledge to the library.

Like other organizations in the knowledge-based society, digital libraries have to play a knowledge management role, as Surowiecki (2004) and Marshall et al. (2003) pointed out. Surowiecki suggested that the core mission of digital libraries is to integrate the professional resource selection with the wisdom of the crowds. Marshall et al. noted that digital libraries need to be more than repositories and must support the life cycle of data, information and knowledge construction in general. Moreover, Lagoze, Krafft, Payette and Jesuroga (2005) observed that digital libraries create a rich, asynchronous workplace in which information is shared, aggregated, manipulated, and refined.

In November 2001, the Institute of Museum and Library Services produced *A Framework of Guidance for Buiding Good Digital Collections*, and in 2004, the National Information Standards Organization (NISO) came out with the second edition. The framework gives seven principles that apply to good digital collections. The first three are reproduced below:

   1) A good digital collection is created according to an explicit collection development policy that has been agreed upon and documented before digitization begins.

   2) Collections should be described so that a user can discover characteristics of the collection, including scope, format, restrictions on access, ownership, and any information significant for determining the collection's authenticity, integrity, and interpretation.

   3) A collection should be sustainable over time. In particular, digital collections built with special internal or external funding should have a plan for their continued usability beyond the funded period.

Findings

University libraries

UniNet plays an important role in developing public university libraries. It connects all universities, institutions and campuses in the country to the network to facilitate study and research.

   In 2004, the public university libraries network integrated the Thai Library Network in the metropolitan area (Thailinet) with the Provincial University Library Network (Pulinet) to form the Thai Library Integrated System (ThaiLIS). ThaiLIS' missions are: 1) A union catalog (available at http://uc.thailis.or.th); 2) A digital collection of theses and research reports and other full text databases (available at http://index.dc.thailis.uni.net.th:800/demscentral); 3) Reference databases of bibliographic information, abstracts, and some full text materials -- AMC Digital Library, Proquest Digital Dissertation, H.W. Wilson, IEEE Xplore, LexisNexis, ScienceDirect (Mahidol University. Library and Information Center, 2004).

   Generally, main libraries provide basic resources in all subject fields and serve courses in the first and second academic years. Faculty libraries provide more specific materials for courses in higher academic years and postgraduate studies. With sufficient financial support and capable staff, university libraries have developed dramatically.

   In addition to the above mentioned resources, each university library creates its own digitized resources, subscribes to other e-journals, e-newspapers, e-references. Some of them publicize rare books full text and link to related web sites.

   Some examples of good university digital libraries are:

- Chiang Mai University Library (http://lib.cmu.ac.th)
- Chulalongkorn University Library and Information Network (http://library.car.chula.ac.th)
- Kasetsart University Library (http://lib.ku.ac.th)
- Mahidol University Library (http://li.mahidol.ac.th) (See Figure 1)
- Thammasat University Library (http://library.tu.ac.th)

Figure 1. Mahidol University Library (http://li.mahidol.ac.th)

Faculty libraries, which have collections specializing in their particular subject area, are rich in e-resources. Research centers and information centers also provide full text publications, multi-media, news, etc.

Three examples of special libraries in universities are:

- Agriculture: The National Agricultural Information Coordinating Center (http://thaiagris.lib.ku.ac.th) (See Figure 2)
- Appropriate Technology: Regional Information Service Centre for Southeast Asia on Appropriate Technology (http://www.ist.cmu.ac.th/riseat/library.php) (See Figure 3)
- Arts: Silpakorn University. Thapra campus (http://www.era.su.ac.th) (See Figure 4)

Figure 2. Agriculture: The National Agricultural Information Coordinating Center
(http://thaiagris.lib.ku.ac.th)

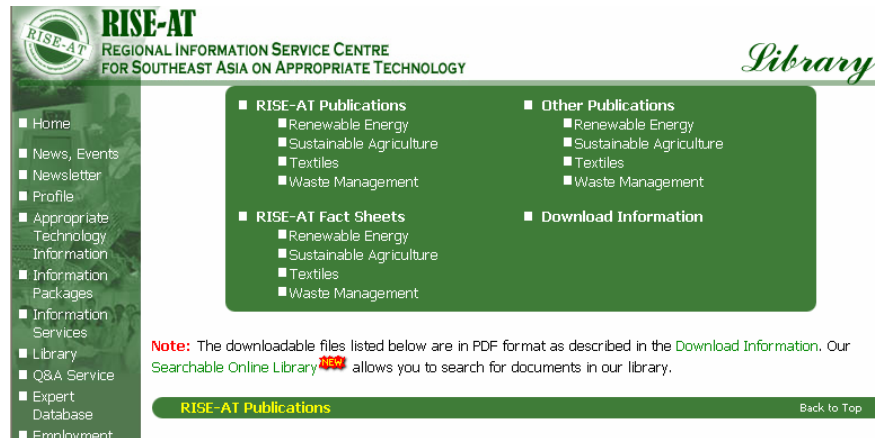**Figure 3. Appropriate Technology: Regional Information Service Centre for Southeast Asia on Appropriate Technology** (http://www.ist.cmu.ac.th/riseat/library.php)

Figure 4. Arts: Silpakorn University. Thapra campus (http://www.era.su.ac.th)

Special Libraries

Special libraries created by government organizations and non-government organizations maintain rich collections. Their holdings include news, information, research reports, conference proceedings, articles, laws and regulations created in the organizations as well as captured from other sources.

Some examples of special libraries are:

- Health: Health System Research Institute (http://www.hsri.or.th), Thaiclinic (http://www.thaiclinic.com) (See Figure 5)
- Laws: Office of the Council of State (www.krisdika.go.th) (See Figure 6)
- Music: Dontrithai (http://dontrithai.com)
- Parliament (http://www.parliament.go.th/library) (See Figure 7)
- Public Finance: Bank of Thailand (www.bot.go.th) (See Figure 8)
- Religion: Buddhism Library (http://go.to/budish), Tripitaka online (http://www.geocities.com/trpitaka_online)
- Research: National Research Council of Thailand (www.riclib.nrct.go.th)
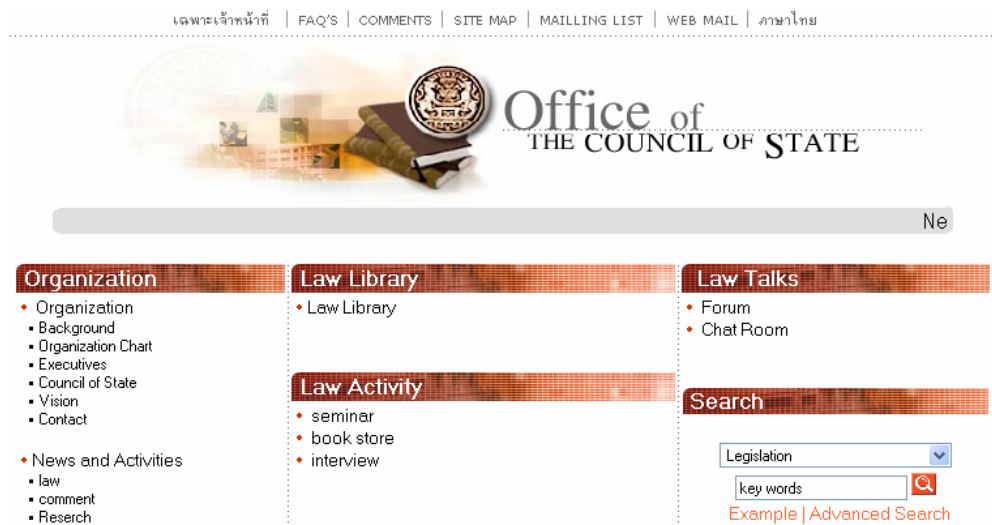

Figure 5. Thaiclinic (http://www.thaiclinic.com)

Figure 6. Laws: Office of the Council of State (www.krisdika.go.th)

Figure 7. Parliament (http://www.parliament.go.th/library)

Figure 8. Public Finance: Bank of Thailand (www.bot.go.th)

Public Libraries

Traditional public libraries are under the Informal Educational Promotion Center, Ministry of Education. Provincial libraries are still traditional due to limitations in the budget and staff. In 1991, the Ministry of Education developed district libraries in commemoration of H.R. Crown Princess Sirinthorn's 36th birthday, and named those libraries after her title. To date, there are 82 district libraries in this project, of which 15 are online. The Council of Education's Secretariat Office (2005) suggested in its research report that public libraries should promote digitization, develop staff continually, and cultivate community relationships.

On the other hand, there are organizations that offer digital resources to the public. Their collections include a variety of materials from news, comics, magazines, encyclopedias and research reports. They also provide search engines and links, and some of them are interactive. Some examples are:

- Knowledge Library under HM Patronage (http://kanchanapisk.or.th/kp1/lib/)
- Pharmacy Public Library (www.pharm.chula.ac.th/surachai/Miscel/Readings.htm.)
- Thailand Knowledge Center (www.tke.go.th)
- Thailibrary (www.geocities.com/thailibrary)

National Library

The National Library is located in Bangkok, and its four branches are in Chiangmai, Kanchanaburi, Singharuri and Supanburi. The main library offers a bibliographic database of books and periodicals. Rare books and manuscrpts are supposed to be viewed online in the future. (http://www.nlt.go.th)

School Libraries

A digital library for Thai SchoolNet was established in 2000 with the collaboration of Kasetsert University. The plan was to be a knowledge bank, with materials from schools, organizations and the public. Its contents are classified in Dewey Decimal Classification. There are currently 9,169 articles, all in full text. (http://school.net.th/library) Very few schools have digital libraries.

Discussion and Conclusion

Among all the digital libraries in Thailand, university and special libraries have developed tremendously. They provide news, information and knowledge – which are either produced in-house or captured from outside sources, in multiple formats (text and multi-media, mostly full text) Most materials are in Thai, with around 10% in both Thai and English. As every organization is concerned about accuracy, 100% of the materials are created by subject specialists. An index to resources produced in-house is needed, so that users can search effectively.

Public libraries run by the Informal Educational Pronotion Center have begun to go into digitization, while the ones run by professional organizations provide easy access to news, information and knowledge in various subjects. Provincial and district public libraries suffer from problems of staff development and financial support. The local government should get involved in public libraries seriously, so as to strengthen their knowledge resources, as stated in the National Education Act of 1999.

The National Library's resources are not easy to access, while the SchoolNet needs more attention from the government.

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