

LIBRARIES AND LIBRARIANS IN INDONESIA IN THE INFORMATION AGE: CHALLENGES AND RISKS

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Abstract

The information age with its electronic facilities has come with many challenges in all sectors of development since information is the base for all development activities. The libraries and information centers and librarians have a crucial roles to play, and to share of challenges and risks to partake in this major activity. As Asia enters the 21st century, it faces political, economic, and social challenges that transcend national boundaries. These technological, as well as socio-economic changes have had a major impact on every walk of life of the people, including library development. The rapid pace of development in the field of Information Technology (IT) and the advent of networked information have required libraries, information centers and librarians in Indonesia to adopt the latest developments in information technology. This include change in the functions of the library to make it service oriented rather than collection building oriented; preservation and access may be considered as vital; marketing of information and library service development of library professionals to cope with the new environment and to deal with the management. To bring about this change Indonesia will need to have a vision for the Information Age and each sector will have to adopt the latest developments in information technology. in supporting the entire spectrum of Indonesians in the lifelong process of acquiring new knowledge and skills - in Science and Technology. The programs and services being offered by libraries in Indonesia in the 21st Century are discussed here in this article.

INTRODUCTION

Indonesia is a country comprising 17,000 islands stretching across some 3,200 miles along the equator between the Indian and Pacific Oceans, sandwiched between the continents of Asia and Australia. A country rich in natural resources, Indonesia's population stood at more than 215 million people in 2004 with more than 50% inhabiting the island of Java and the remainder distributed over Sumatra, Kalimantan, Sulawesi, Irian Jaya and other islands.

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Education in Indonesia dates back a thousand years, to the beginning of the country's evolution. Indonesia was under Dutch control for about 350 years, followed by the Japanese for 3 years, before it finally proclaimed its status as an independent country named Indonesia in 1945. The statistics of Indonesia (2004) show that by the end of the 2003 census, there were 150,612 primary schools, enrolling 25,976,285 pupils; 21,256 general junior secondary schools, with 7,523,318 students; 13,353 senior general and vocational schools with 5,399,547 students. The number of higher education institutions (academies and universities) is 2,422 with almost three million students.

Education is very important for everyone, because through education the information and knowledge which are key determinants of progress of a society, may be passed on to the next generation. Education, which is considered a national investment, is expected to increase human skills, knowledge, and capacity building. It will be instrumental to ensure that Indonesia competes successfully in AFTA (Asia Free Trade Areas) or other tough free market competition. Libraries and information centers and librarians will have their share of challenges and risks to partake in this major activity.

Libraries play a major role in creating and supporting the knowledge acquisition and dissemination process to encourage learning. Moreover, the library will also play an important role in imparting knowledge through acquisition, abstraction, dissemination and promoting awareness. The library can and should continue to serve as an integral part of the nation's learning systems in the emerging knowledge economy. They will complement and reinforce the nation's education systems and skills upgrading program.

THE ROLE OF LIBRARY IN EDUCATION

Today, the presence of a library in the school no longer needs justification. School library service has been recognized as essential and inevitable in the over-all education of children. In the midst of the present information and resource explosion, no classroom instruction can sufficiently cover the scope of knowledge needed by an individual for efficient and effective life. The school library is the agency by which such vast scope of knowledge may be made available to the school children.

In spite of this recognition of the vital role of the school library, the situation in our school is far from satisfactory. Except for very high brow private schools, most schools in Indonesia do not have a library of their own.. This area of librarianship is very neglected and needs immediate and continued attention. An attempt to find out the actual situation of library development in Central Java was carried out by Brotsosedjati (2002). One of the facts brought out of the survey was that out of 25,052 schools, 2,321 had libraries, whereas the other 3,511 had semi-permanent ones. And of these schools with libraries, only 4,851 had librarians working full time. It was also revealed that there was only .216 book per pupil or one book for every 5 pupils.

The survey recommended that the school library should be well-organized to contribute to the successful implementation of education programs in Indonesia. The following programs should be taken into consideration:

- a. The number of volumes in the library meets the recommended quantitative standards for the size of the school.
- b. The school library is properly organized.
- c. A librarian is in charge of the library.
- d. The library room is adequate in size, centrally located, well lighted, and attractive.
- e. An adequate library room is provided to facilitate classroom activities.
- f. Pupils are trained in the use of the library.
- g. The library is used extensively by the teachers and pupils.

Accordingly, the school library should be alert to the changing aims of education so that the collections and other library services could be operated to conform with- and to- support educational programs in the attainment of educational goals. As long as the society is an evolving organism, the objectives of the education will continue to change, and, the aims of the library will likewise change.

OVERALL LIBRARY DEVELOPMENT IN INDONESIA

An analysis of the existing documentation revealed that the Indonesian library systems, be they public, special and university libraries have made relatively slow or no significant progress in a number of key areas (acquisition, budget allocation, membership, and staff strength) in the last decade. Moedjono (1993) stated that the Indonesian libraries as a whole are rated at the lowest level among ASEAN (Association of South East Asian Nations) countries, especially Indonesia's university libraries. Only in the last decade has the library profession begun to receive much attention from the Indonesian government. Although some funding from various sources are available to these libraries each year, substantially more is required to fully satisfy a nationwide need for an adequate information network. Prices of books and journals have risen far higher than the general inflation rate, at the same time a large increase in the number of new publications (especially journals) has occurred.

Additionally, Indonesian regulations governing international mail, and banking transactions, particularly currency exchange rates, have hampered the flow of worldwide scientific information into Indonesia, especially foreign journal subscriptions intended for university communities. The combined result of under-funding and bureaucratic over-regulating has been a deterioration of collections at university libraries. To make matters worse, it has been recently decided that many academic institutions and their libraries will no longer receive any funding from the national government that will put these institutions under the financial mercy and unknown attention span of regional government officials, an uncertain prospect in already difficult times.

THE DEVELOPMENT OF LIBRARIES IN INDONESIA

Few records are available that indicate the presence of libraries in Indonesia. Kamil (2003) in her report stated that the earliest reference to the establishment of library

system in Indonesia was in 1908, where the "Commission of Popular Literature" was introduced. At the time, 608 were set up in schools where the materials available were only in Dutch and restricted to a certain level of Indonesian society. By the 1930s, the number of school libraries had grown to 2,686. Most of them, however, were destroyed during the Japanese occupation from 1942 to 1945.

Further, she stated that currently, there is one National Library, 25 national provincial libraries, 519 university libraries, 12,620 school libraries, 769 public libraries at city levels, and 800 special libraries.

In Indonesia, the school and public libraries primarily serve the information needs of children and young adults. They are the first libraries to which a child is exposed. However, not all towns and cities have libraries, and a number of schools, especially those in the rural areas are still in need of libraries. The school libraries are operated under the auspices of the Directorate General of Primary and Secondary Education.

Supervision of school and public libraries is not exactly easy considering distances and means of transportation. Problems also arise in the acquisition and distribution of materials to build a library collection, the biggest of which is in the form of financial constraints. Moreover, due to the fact that school librarians usually get lower salaries than librarians in the academic community and special libraries, it has been very hard to hire trained librarians for the school libraries.

UNIVERSITY LIBRARY

In general, university libraries are much more developed than other types of libraries in Indonesia, particularly in terms of recognition, status, services, and technology. Factors contributing to such development include substantial fund allocations from the government and their parent institutions, adequate public support, and available well-trained professional librarians at the master's and doctoral levels.

University libraries have continuously utilized computerized systems since the early 1980s. The first and most common system is the mini-micro CDS/ISIS system of UNESCO. This program is still widely used in most libraries particularly in government funded libraries, under the Directorate General of Higher Education – Ministry of National Education. The improvement of university libraries is an important item in the program of development of tertiary level education.

University library service has the tendency to require more library professionals with automation knowledge and practice. At least they should be aware of existing databases around the world and how to acquire them, online, offline, CD-ROM, etc. If such personnel are none existent, recruitment should be made also for persons with computer knowledge as they could be utilized as operators.

THE NATIONAL LIBRARY

The National Library of Indonesia was established under the Ministry of Central Museum Library, the Regional Library of Jakarta, the Social and Political History, and the Bibliography Division of the Centre for Library Development, and was subordinated under the Director General of Culture.

The National Library functions as the national deposit library, center for national, regional, and international library cooperation, and a center for reference, research and information at the national level. The National Library is housed in a modern building, with a new attachment which is still under construction, occupying an area of 20,000 square meters, and located at the central capital of the Republic of Indonesia. As of 2005, it has a collection of 1,100,000 volumes of books.

The National Library prepares manuals and guidelines as references tools, directs information services, compiles indexes and bibliographies upon request, reads and deciphers ancient scripts, organizes periodic seminars/workshops on Indonesian library and librarianship, carries out specialized training programs, exhibitions, lectures, and panel discussions, etc.

In addition, in the last few years the National Library has been taking part in the cultivation of reading habit in Indonesia. The program includes book contests and slide shows on TV programs.

AGRICULTURAL INFORMATION AND LIBRARY RESOURCES

Agricultural information covers statistical data and factual reports on food production, natural resources management, biodiversity conservation, sustainable development and geographical information systems. Agricultural information resources in Indonesia can be best identified with libraries of organizations associated with agricultural research. There are scores of organizations in Indonesia, including statutory bodies, Government Departments (Department of Agriculture, Department of Forestry and Plantations, etc.), and universities. Most information resources comprise out-of-date textbooks in limited numbers and numerous local project reports. Only the best results are presented as papers in a small number of available refereed Indonesian journals such as "BIOTRIA" and "Hayati". By far the greater majority of research project reports end up as publications in non-refereed local journals, that are unique to each of the universities. Only a small number of universities in Indonesia maintain a modest collection of scientific journals.

In Indonesia, due to severe budgetary constraints, libraries are poorly stocked and research journal subscriptions are limited and extremely inadequate. While significant improvements are cost prohibitive for some time to come, still libraries need to serve and maintain the interest and enthusiasm of the users. Libraries and information centers must focus and invest in the development and maintenance of information networks.

To access resources, Indonesian scientists often travel long distances that put a strain on their modest incomes, nor can they afford the cost of retrieval of such information. This is so serious a limitation to the production of publishable research results in Indonesia that is often not easily understood in the developed countries. Also, for those scientists that do their research in areas that require consultation of vital information published by Dutch scientists in the last century, access to such information requires the enlistment of specialists services in the Netherlands, because the original papers often exist only in the archives of the Dutch Government.

SPECIAL LIBRARIES IN INDONESIA

In Indonesia, a special library networking system has been established for sharing of information. Information sharing in science and technology is coordinated by **PDII – LIPI**, (*Center for Scientific Documentation and Information – Indonesian Institute of Sciences*), while the **Ministry of Justice** coordinates information sharing in the area of law. The **PUSTAKA** (*Indonesian Center for Agricultural Library and Technology Dissemination*), in Bogor functions also as the base for information sharing in agriculture and biology. Nasution (1975) stated that PUSTAKA, which was formerly *Biblioteca Bogoriensis*, is world-famed for its collection in agriculture and biology. The library was founded in 1842.

Today the special libraries have increased both in number and form. According to the *Directory of Special Libraries* (2000), there are 913 special libraries in Indonesia. Some of them have used new technology, computerized databases, on-line and CD-ROM databases since the early 1980s.

Since most special librarians are responsible for both technical functions and services, they usually gain a holistic view of the library system and skills in handling different jobs all at the same time. In today's information age, the Internet and Web sites became a popular source where people tap for all lands of Internet. It is expected that through the networks established, they could deliver quality and timely services.

THE CHALLENGE TO INDONESIAN LIBRARIES

Notwithstanding such obstacles, the Indonesian libraries and librarians must prepare for the information globalization era. Librarians should be skilled enough to handle the more sophisticated tasks of information retrieval, analysis and dissemination, and be ready to adopt new technologies. If the librarians are not themselves ready, library users may not be able to maximize the use of the vast array of technologies that facilitate access to digital information efficiently. Librarians should be trained and capable of acting as mediators between users and the technologies to retrieve information their clientele request.

Without a sufficiently modern information infrastructure, academic agricultural research and development efforts in developing countries like Indonesia will remain

ineffective, for without a means for communicating its results to the productive private sector, academic research ends up having little impact on the economy. Developing countries particularly need information about new foods, animal feeds, and lumber and fiber crops, as well as on food processing, storage, and preservation. Increasingly, fermentation technology and others use microbial processes in the production of foods, beverages, condiments, animal feeds, and medicines.

Moreover, ICTs have made significant impact on libraries and scholarly communication in Indonesia. With the successful implementation of the application of computer technology and the means for storage, manipulation, transmission and display of bibliographical information, including new products, systems, and services for literature search, citation indexing, and support systems for cataloguing, the librarians need to understand the process/nature of information. Therefore, similar to the junior librarians, the senior professionals as well should be given opportunities to update their professional and technical knowledge through continuing education programs. Additional training and skills for senior staff need to be emphasized in order for them to keep up with current practices and prepare them for change. It should be pointed out that when the senior librarians completed their studies, ICT were barely introduced to them.

RESPONSE OF LIBRARIES ON THE CRISIS

For most libraries in Indonesia to remain current, library materials must be acquired notwithstanding the explosive increase in the cost of print-on-paper resources. Moreover, to introduce new technologies, training courses for library staff to operate innovative machinery for speedy access to the vast array of information will also be cost prohibitive. It is unfortunate that, as libraries began to explore the use of new technologies, they also began to experience a period of accelerated inflation.

In some universities, libraries stand at the front line of adopting Internet technology. They establish connections to Internet Service Providers and offer open access for their users to surf the Internet. Only one or two advanced libraries have published their bibliographic catalogues on the Web.

In 1999, a digital library network was established in Indonesia (Fahmi, 2002). This came about at the Institute of Technology, Bandung (ITB) as a result of the collaboration of the ITB Library, the computer Network Research Group, and the Knowledge Management Research Group, and was called GANESHA Digital Library (GDL). Funded by the International Development Research Centre (IDRC), the Knowledge Management Research Group set up the Indonesian Digital Library Network (IDLN). In October 2000 at a workshop held in Bandung, the participants agreed to change the name from IDLN to IndonesiaDLN. IndonesiaDLN's central hub, located at ITB, mediates the metadata exchange. When new metadata is submitted, the server will redistribute the collected metadata to all member servers by request via SMTP protocol. This development will ensure the realization of national knowledge management of the Indonesian intellectual capital. In addition, those who need current information can access the ITB Online Catalogue NETWORK homepage www.kmrg.itb.ac.id

TRAINING NEEDS FOR LIBRARY DEVELOPMENT

Positions in library and information science are definitely increasing. The amount of information being generated is doubling at an alarming rate. Technological advances brought on by the Internet have made it easier to access remote information, and librarians serve a critical role by organizing and facilitating access to distributed information and by teaching and educating users about new ways to access information. National and international initiatives in agricultural sciences and other disciplines, as well, are renewing and stimulating interest, research, and new facilities. Librarians will be more critical than ever to the process of selecting and evaluating information and teaching users how to use and evaluate information resources.

It is imperative that the library and information personnel at all universities be thoroughly trained in basic library techniques. It is necessary to train staff at the designated discipline service centers, to high level technical and management skills required to provide an efficient system-wide information service, that will act as the major information resources within the network. It is also necessary that staff in user libraries be upgraded to enable them to effectively utilize and contribute to the resource sharing network.

Automation is seen as central to the resource sharing infrastructure. In particular, a well supported centralized bibliographic service center is crucial to easy access to collections throughout the network. This automated center will be the hub of the bibliographic network underlying the library resource sharing network. Continuing support in the procurement of both hardware and software will be a requirement for the "Bibliographic Center" in each of the "Discipline Service Center Libraries" as well as resource sharing network libraries.

CONCLUSION

With the shift of the primary development of libraries from central to local government and to local people, each region will urgently need up-to-date information and information services, without having Central Government funds. Given the explosion of new information sources and electronic technologies, and ongoing constraints on financial resources, resource-sharing/networking has emerged as an important alternative for coping.

Training and continuing education opportunities for the Indonesian librarians will continue to be heavily dependent on successful networking and marketing among individual libraries and librarians. Funding agencies, such as Asia Foundation, the ASEAN Foundation, the Ford Foundation, the British Council, and other International Institutions such as SLA (Special Library Association), IFLA (International Federation of Library Associations) should be approached for financial support and library materials

acquisition. The other research institutions as well as universities in ASEAN member countries should be tapped for donations/exchanges of published materials.

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