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Digitization and Sustainability of Local Collection: An observation of digitization activities among Malaysian Universities Libraries

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Abstract

Malaysian academic libraries have responded well to the government's IT agenda. They are among the first group of libraries to embark on digitization projects. This paper attempts to discuss the types of materials digitized, guidelines, policies and provision for access to the digitized materials. It also discusses some of the issues and challenges in this process of enriching the local digital content. An appropriate training module with practical guidelines and policy is recommended to ensure continuity and sustainability of these projects.

Introduction

Digitization of library collection is becoming a common activity among academic libraries. Apart from subscribing to digitized collection in terms of online databases and e-books, libraries realized the need to make available to their audience the virtual collection of their local collection. Academic libraries have always been the depositories of their universities intellectual content in terms of informational materials such as theses, dissertations, research reports, students' projects and the various published and unpublished works of the universities academic staff and students. Malaysian academic libraries have long realized their role as a vast storage of local information. This paper will describe the digitization effort of several academic libraries in Malaysia within a loosely library cooperative group called PERPUN (Standing Conference of National and University Libraries in Malaysia). This group consists of 22 academic libraries and the National Library of Malaysia. Among the 22 academic libraries 15 are public universities while the rest are private universities with the government of Malaysia as the major shareholder. This paper will also discuss the types of materials digitized, policies and guidelines used or associated with their practices and the problems faced during the processes and their future plan.

Among the aim of PERPUN is to enhance and strengthen cooperation among its' members, which include sharing of resources, ideas and act as a platform to discuss issues, problems, policies and others to jointly take action to improve library services and undertake projects for common benefit. In addition to PERPUN members there are over 200 academic libraries consist of institutes of higher learning, which constitute polytechnics, teacher-training colleges, matriculation colleges, and privately own universities and colleges. From the 22 academic libraries, about 15 responded to a questionnaire sent by the authors. Among the responses were from the University of Malaya (UM), Universiti Kebangsaan Malaysia (UKM), Universiti Sains Malaysia (USM), University Putra Malaysia (UPM), Universiti Teknologi MARA (Uitm), University Teknologi Malaysia (UTM) University Utara Malaysia (UUM) and International Islamic University (UIA) that comprises among the more senior universities in Malaysia. Other respondents namely University Malaysia Sabah (UMS),

University Malaysia Sarawak (UNIMAS) Open University (OUM), Kolej Universiti Kejuteraan & Teknologi Malaysia (KUKTEM), Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM) and Kolej Universiti Kejuruteraan Utara Malaysia (KUKUM) are consider the younger set of public or private universities.

Types of materials and reasons for digitization

Academic libraries all over the world are digitizing materials that are in danger of being lost in the future especially old manuscripts, photo images, theses, musical recordings, which are mostly historical. Harvard Law School Library digitized 82,000 documents from the Nuremberg war crimes; Brown University Library digitized 1500 pieces of African American sheet music dated from 1780 – 1960, and the University of California at Berkeley digitized medieval and renaissance manuscripts (Yan, 2004). In Malaysia, in tandem with vision 2020 which aimed to achieve a knowledge-rich society among Malaysians, the National Digital Library System (System PERDANA) which propagates a nation wide digital library services was conceptualized. PERDANA also encourages the development of local content among libraries, which envisage the networking, and sharing of digital resources among all libraries in the country. All types of library sector, national, academic, public and special, are carrying out digitization efforts.

How do academic libraries in Malaysia response to the call for digitization? What are the materials they digitized and how do they select the materials. What are the factors they consider? How do they go about creating a body of knowledge and began to convert traditional print collection to digital forms. Certainly they are many local materials that need to be digitized. De Stefano (2001) noted that there were different purposes for digitization. She highlighted the types of materials selected must meet the purpose, selection to enhance access, selection based on content and selection for preservation. Gertz (2000) outlined that when considering materials for digitization, first will be physical condition of the materials, followed by access, value of content, the demand for

the materials, the intellectual property rights, the required infrastructure, cost and sources of funding.

Libraries	Thesis	Exam Paper	Final Yr. Project	Staff Pub.	Photograph	Seminar Paper	University Publication
UM	x	2003	—	—	—	—	—
UPM	—	—	—	x	—	x	—
UiTM	x	x	x	x	—	x	x
UNIMAS	2005	—	x 2002	—	x 2002	x 2005	—
USM	1996	x 1996	—	—	x 2004	—	—
OUM	—	x 2002	—	—	x 2002	x	—
KUSTEM	x	x	x	—	—	x	x
KUKUM	x	x 2003	x	—	—	—	—
MMU	x	x	x	—	x	x	x
KUKTEM	x	x 2004	—	—	x 2003	x	—
UMS	x 2001	—	x 2001	—	—	—	—
UKM	x 2002	x 2002	x	x 2002	—	x 2002	—
UUM	x 1994	x 2000	x 2000	x 2000	—	x 2004	—
UTM	x	x	x	x	x	—	—
UIA	x	x	x	—	—	—	—

Table A: Materials Digitized

According to Table A, thirteen of the libraries have digitized their theses collection; twelve digitized their exam questions. Among the earliest to embark on digitization of theses was USM, which started in 1996. According to UPM they will be starting to digitize their theses collection by the end of this year. This is a part of an agreement between the PERPUN members to share their collection of theses among the universities users. Not all universities digitized their exam questions due to the fact that they must get the approval from the faculties before putting them up in their portals. Some of the libraries have also started to digitize other collections such as, students' final year projects and publications by their academic staff. Although a few have stated digitizing their photographs (USM, UNIMAS, OUM, MMU, KUKTEM), and university's

publications, (UiTM, KUSTEM) others will follow soon and plan to digitized archival and special collection of their libraries which include video, manuscripts and seminar papers. UIA have embarked on the digitization of manuscripts and video.

Libraries	Thesis	Exam Paper	Final Yr. Project	Staff Pub.	Photograph	Seminar Paper	University Publication
UM	x	2003	—	—	—	—	—
UPM	—	—	—	x	—	x	—
UiTM	x	x	x	x	—	x	x
UNIMAS	2005	—	x 2002	—	x 2002	x 2005	—
USM	1996	x 1996	—	—	x 2004	—	—
OUM	—	x 2002	—	—	x 2002	x	—
KUSTEM	x	x	x	—	—	x	x
KUKUM	x	x 2003	x	—	—	—	—
MMU	x	x	x	—	x	x	x
KUKTEM	x	x 2004	—	—	x 2003	x	—
UMS	x 2001	—	x 2001	—	—	—	—
UKM	x 2002	x 2002	x	x 2002	—	x 2002	—
UUM	x 1994	x 2000	x 2000	x 2000	—	x 2004	—
UTM	x	x	x	x	x	—	—
UIA	x	x	x	—	—	—	—

Table B: Reasons for digitization

The respondents were asked the reasons for digitizing the materials they choose and as seen in Table B, all of them agreed that the reasons were preservation, access and storage. Others reasons were copyright control, value of intellectual content and to avoid deterioration. It is interesting to note that although the majority of the respondents agreed that preservation and the intellectual content was the main reason for digitization, two libraries, the University of Malaya (UM) and Multimedia University (MMU) list easy access for their users their main reason for digitization.

Digitization Process

Most of the libraries stated that they face problems in terms of staffing in their process of digitization. Apart from not having enough manpower most of them felt that their staff needs more training to carry out digitization works. They all agreed that there is a need for workshops and courses especially in the area of selection of systems (software). Despite having problems most of the digitizing works from scanning to the provision of access are being carried out by the library personnel. Libraries like UM, UiTM, UKM and UIA even outsource some of their digitization works, especially scanning of the materials. Among the materials they outsource were theses, annual reports and manuscripts. They outsource the work hoping that they have better quality output and to speed up the process but some of them found that some vendors could not meet the targeted datelines. They must also be careful when choosing vendors, since the intellectual content and copyright belong to the universities and can be subject to abuse. Although the job is being outsourced to the vendors, work such as scanning are carried out in the premises of the libraries, resulting in the libraries having to provide space for the vendors. According to UKM this is necessary to ensure that others do not get access to the collection. Table C illustrates the materials digitized internally or outsourced by the libraries concerned.

Guidelines and Policies

Over the past 5 years, respondent libraries have been spending between Malaysian Ringgit 100,000 to 1.2 million in terms of purchasing of hardware and software for their digital initiatives. More budgets will be allocated in the next few years. With the amount of funds spent appropriate guidelines; policies and standards must be put into perspective. From the survey only 7 of the libraries have written guidelines and policy regarding their digitization programmes. In line with the digitization process it is highly recommended that this group of libraries have and implement policies regarding the standards, preservation and selection of digital materials. Standards and protocols,

systems and software, digital principles, quality control, formats, catalogue, storage and copyright and ownership must be in place to ensure problems such as not compatibility or non cross-searchable do not happen, especially since PERPUN aim to provide access to all member libraries and the general public. This will also provide direction to members of the cooperation.

Libraries	Internal	Outsource
UM	x	Thesis
UPM	x	x
UITM	Exam Paper	Thesis Uni. Publication
UNIMAS	All	All
USM	All	x
OUM	x	President's Speech
KUSTEM	Newspaper Cutting	x
KUKUM	Exam Paper	x
MMU	x	x
KUKTEM	All	x
UMS	Thesis 300 Titles	x
UKM	Exam Paper, Research Report	Thesis, Annual Report
UUM	All	x
UTM	All	x
UIA	Thesis, Exam Paper, Video, Content Pages	Thesis, Manuscript

Table C: Digitization Process: Outsource

Libraries	Internet	Intranet
UM	x Thesis Abstract	x
UPM	x Thesis Abstract	x
UITM	x	x
UNIMAS	x	x
USM	X Thesis Abstract	x
OUM	x	x
KUSTEM	x	x
KUKUM	x	x
MMU	x	x
KUKTEM	x	x
UMS	x	x
UKM	x	x
UUM	x	x
UTM	x	x
UIA	x	x

Table D: Access to digitized materials

Access by users

Almost all the all the universities have the access to their local digital content through portal available via Internet and intranet (Table D). Intranet plays an important role among the libraries because their main concern will be their own respective students and staff. Although the access via Internet is possible, users who are non members of a

particular university can only access certain information, for example for theses and research reports they can only access the abstracts or the bibliographic information. Cooperation of access should be extended to full text. Perhaps as recommended by UTM, they hope in future there will be able to access the entire collection through the implementation of e-commerce, just like subscribing to the foreign online databases.

USM Library - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print

Address <http://krisalis.usm.my:8080/elm-equip/inhouse%20db.jsp> Go

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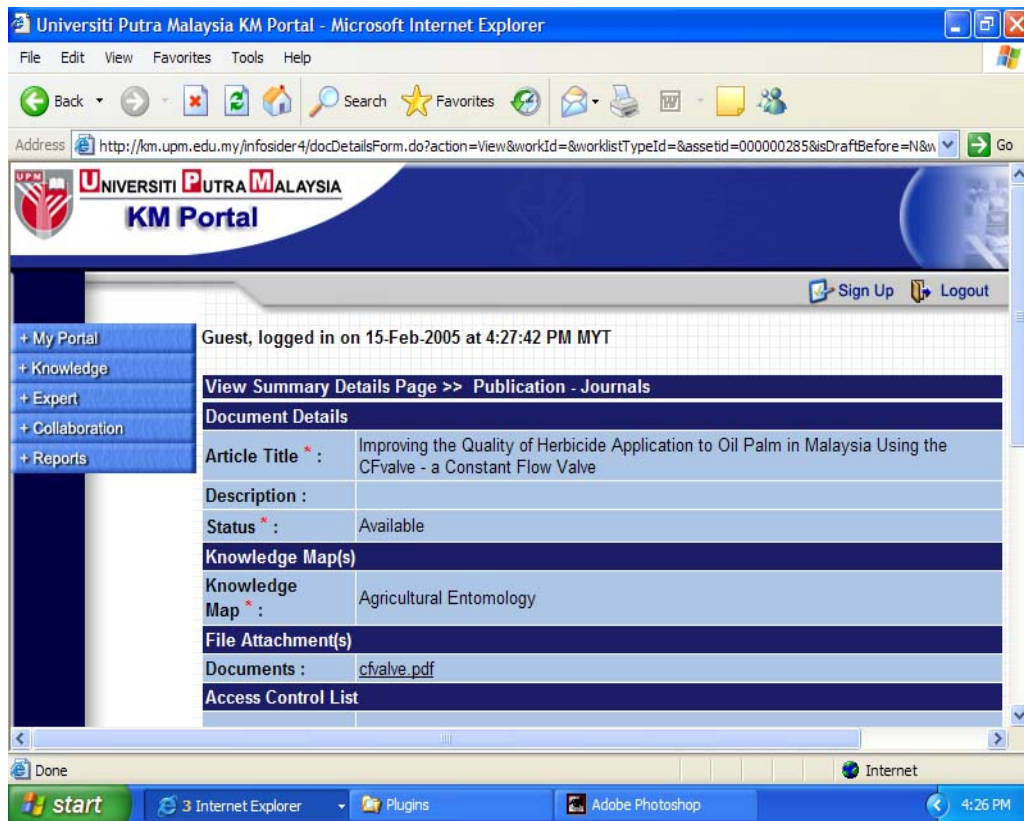
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Inhouse Databases

- Koleksi Digital USM** (Accessible within the USM Campus only)
List of digital collections that includes newspaper cutting, exam papers, abstract of theses, MIDAS Bulletin and Malaysiana collection.
- Bibliografi Malaysia (MBIB)**
Koleksi Khas yang mengandungi segala penerbitan yang berkaitan dengan maklumat sosio-ekonomi Malaysia.
- Penerbitan Kakitangan USM (PKTA)**
Mengandungi semua penerbitan Kakitangan Universiti yang dikeluarkan sejak tahun 1955. Penerbitan-penerbitan ini meliputi buku, artikel yang diterbitkan dalam majalah, kertas-kerja yang dibentangkan pada Persidangan, Seminar dan lain-lain.
- Tesis USM (DISS)**
Koleksi yang mengandungi semua tesis/dissertasi yang dihasilkan oleh pelajar-pelajar Universiti Sains Malaysia di peringkat Ijazah Sarjana dan Ijazah Kedoktoran yang diserahkan kepada Perpustakaan oleh Institut Pengajian Siswazah Lanjutan, dan Pusat-Pusat Pengajian.
- Bibliografi Pendudukan Jepun di Malaya (JBIB)**
Koleksi Khas yang mengandungi penerbitan yang berkaitan dengan Pendudukan Jepun di Malaya dari tahun 1941-1945.
- Risalah (RISA)**
Mempunyai risalah-risalah yang telah diserahkan kepada Perpustakaan sebagai hadiah, meliputi berbagai jenis penerbitan.
- Risalah Malaysiana (RISMA)**
Koleksi Khas mengenai maklumat-maklumat Malaysia.
- Cerpen & Puisi (SAS)**
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<http://libnotes.usm.my:8080/diss1.nsf/941e9d96645c6165c8256709000885b7?OpenView> Internet



Issues and Challenges

Digitization has revolutionize the way the libraries store, preserve, disseminate and most importantly efficient access to users. The planning and executing of digitization in Malaysian academic libraries is not without issues and challenges. At present with limited staff, the libraries are hopeful in the near future to have a special unit to handle their digitization works. Currently, the information technology unit is usually in charge. With the increase in budget they hope to continue their progress as planned. Most importantly they are planning for better hardware and software. This will overcome their shortage of storage, quality control and their portal maintenance. There is also a need to address the issue of staff training. Without competent and knowledgeable staff,

digitization works cannot be carried out smoothly. They need competencies and knowledge such as technical skills, metadata, checking and verifying for quality control and selection of hardware and software.

Copyright issues must also be address. Apart from digitizing theses and research reports, many libraries are digitizing conference and seminar papers, articles written by their academic staff but published by other organizations. Perhaps PERPUN can address all these issues and challenges by having a guideline and standard for digitization works. This will certainly facilitate the libraries to be more focus and serious. As suggested by one of the respondents, all universities should practice the same standard and policies and this will certainly foster greater resource sharing among all universities and the public.

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