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ENGAGING READING ADVOCATES IN DEVELOPING A LIBRARY

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Abstract

This paper focused on the role and key reading intiatives of Malaysian libraries in cultivating a love of reading in children and young adults (i.e teenagers) and on improving reading habits among Malaysians. Particular emphasis is given to strategies and implementation activities to engage the next generation of readers, focusing on developing a Malaysian society with an improved reading habit. Stakeholders discussed in this paper are the public libraries, school libraries, community/rural libraries and the National Library of Malaysia.

Keyword: Reading habits; Reading promotion; National Library of Malaysia

Reading in Malaysia

Malaysia's literacy rate stands at 94.64 per cent, citing United Nations Educational, Scientific and Cultural Organisation (Unesco) report. While the literacy rate has increased, the country still foresee the need to boost reading habits.

On average, each Malaysian only reads 15 books in a year, based on an interim study the National Library conducted in 2014. This is a hugeimprovementcompared to 2005, when Malaysians were reported to have read only 2 (two) books in a year. Nevertheless,this figure is way behind developed countries, whose citizens read 20 books a year. It is hoped that the reading habits among Malaysians would continue to growand eventually match that of developed countries.

Children's Library Services in Malaysia

The current situation of children's libraries in Malaysia will be focused on these libraries which at present are the four types of institutions which has been providing reading materials and facilities for children i.e.:

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(i)   Public Libraries
(ii)   School Resource Centers
(iii)   Community/Rural Libraries
(iv)   The National Library of Malaysia

Public Libraries

Public libraries in Malaysia are run primarily by the State Public Library Corporations in Peninsular Malaysia and the State Library Departments in Sabah and Sarawak. There are 14 State public libraries in Malaysia. State public libraries in Malaysia are overseen by a director and supported by professional and non-professional staff.

All these libraries have a children's section within their premises which caters for those aged 12 years below. The branch and mobile library services provide reading materials for children staying in rural/ remote areas. The facility provided will be able to lessen the gap of social development between children in rural areas and in the cities.

The Federal Territory of Kuala Lumpur is the first state in Malaysia to have its own children's library. The Library named Pustaka Bimbingan Kanak-Kanak was officially opened in 1977 to give reading and recreational activities to children aged 4-10. It was situated in Jalan Tun Razak and ceased operations when the NLM moved to its present premises.

School Resource Centres

School resource center plays a very important role in improving reading habits and attitudes of students toward reading. The School Resource Centres (SRCs) in Malaysia provide information and ideas that are fundamental to function successfully in today's information and knowledge-based society. The SRCs equip students with information literacy skills and help them develop life-long learning habits, enabling them to be knowledgeable and responsible citizens.

There are currently 10,188 SRCs in Malaysia and it is under the supervision of teacher librarians.

Community/Rural Libraries

Children living in rural areas are not deprived of reading materials. Rural reading services in Peninsular Malaysia are mainly provided by State Public Library Corporation, Ministry of Rural Development under KEMAS (Community Development Programme) and agencies under the Ministry of Land and Regional Development Authority (FELDA)

KEMAS has its own community libraries to give services to rural community where this facility is not provided by the state libraries. As of December 2016, there are now 498 KEMAS Resource Centres and Medan Info Desa run by KEMAS.

NLM has managed 510 rural libraries whereas 611 rural libraries are managed by the respective state governments.NLM added its latest community library in the Mini Urban Transformation Center (UTC) Keramat Mall, Kuala Lumpur in December 2014 making the total number of community libraryunder NLM to fourlibraries. The other three community libraries are in Makhota CherasAEON

Shopping Malland Setiawangsa AEON Shopping Mall which was opened in 2012 and Bukit Damansara Residential Area in 2014. All these community libraries are located in Kuala Lumpur and are corporate social responsibility projects where the library buildingor shop lot in shopping malls are provided by the private sectors. The cumulative membership of all the community libraries stands at 19,574.

These community and rural libraries have a collection of children's books as well as young adults. Activities for children and young adults are held regularly at these community and rural libraries which includes information literacy workshops, storytelling sessions,handicrafts, coloring, workshops on writing and ICT and so on.

National Library Of Malaysia

The National Library has a Children's Library to provide reading materials to children from infancy through age twelve. The children's collections exist to encourage children to develop a lifelong habit of reading for both recreational and informational needs. As of December 2016, it has a collection of 334,580 materials in English, Bahasa Melayu, Mandarin and Tamil language.

NLM's Children Library was given a facelift in 2014 with the generous donation of Exxon Mobil in order to provide state of the art children library services and a more conducive library to the users. Among the new services provided include the PNM i-Play Toy Corner which helps to develop the mind of the children and inculcate reading habit at a young age. The Children Theater Club was formed to instill love for culture and heritage.

As of December 2016, NLM Children's library has a total of 177,516 members.

Hypermedia Resource Center

The National Library of Malaysia has also established a Hypermedia Resource Center to hone children's skills and develop their creativity using computer programmes through activities such as writing, story-telling, drawing, coloring and poetry. This Centre started its operation on 1st September 1994 and is being funded by Exxon Mobil. The Centre which is located at the NLM Children's Library was upgraded in 2011 to cater for the changing needs of users. The Service at the centre catered for children 4 to 12 years old. The Centre is divided into three corners which comprises the story-telling corner equipped with its own audio visual facilities for children to watch or listen to stories from the Hypermedia Collection; Music Corner which offers a selection of suitable music for the children to listen and sing along for learning and entertainment and IT Corner which is fitted with 11 computers equipped with interactive educational software.

Reading Promotion Programmes

In line with the role of libraries in Malaysia's mission which is to be the prime mover to nurture reading culture among Malaysians, especially children and young adults, NLM, state libraries, municipal and rural libraries has organized reading promotion programme / activities as follows:

(a) NILAM (*Nadi Ilmu Amalan Membaca*)

The main goal of the school library is to support the children's literacy and their learning through reading programmes. The Ministry of Education, through itsEducational Technology Division meanwhile, initiated reading programmes for both primary and secondary schools in Malaysia named as NILAM (*Nadi Ilmu Amalan Membaca* –The Pulse of Knowledge is through Reading) where students are required to follow the reading activities in schools. Launched by the Education Ministry in 1999, NILAM aims to inculcate the habit of reading among both primary and secondary school students. The students are encouraged to write a short summary based on books they have read. Teachers will examine the summaries and students are given recognition based on the numbers of books read.

There are three elements to this programme:

(i) Reading Records: Each student recordsbooks read in a month.

(ii) Confirmation of reading:Teachersconfirm records of pupils' reading.

(iii) Recognition: Recognition in the form of certificates is given to students based on the number of books read. This programme has been successful and encouraged students to borrow books from the School Resource Centre, the library or other sources. In addition, the students were found to share books with their friends and family.

(b) Read: One Nation Reading Together (*Program Kem Membaca 1 Malaysia – KM1M*)

This is a smart partnership programme between The Education Ministry of Malaysia and Scholastic Malaysia, a subsidiary of Scholastic Inc. – the world's largest publisher and distributor of children's books.

The one-day event encourages schools to get teachers and students to read a book for half-an hour. For each participating school, Scholastic Malaysia donated 50 books in English Language published by Scholastic to upgrade their libraries and this amount increases yearly with the participation of more schools every year.

This programme was launched in 2008 to inculcate the reading habit among schoolchildren in Malaysia. One of the achievements of this programme was when it was awarded an entry into the Malaysian Book of Record (MBROR) 2010 as "The Most Number of Children Reading Storybooks in Schools in a Day."

(c) The Power of Reading Project

The British Council launched the Power of Reading Project, which involves donating over 30,000 books to schools and helping teachers to adopt simple methods to use the books. From this activity, The British Council hopes to secure sponsorship to roll out the project to other schools in East Malaysia in the near future. According to The Star (2012), the "Power of Reading" project saw the introduction of high quality children's picture and story books in

40 schools across Sabah, Sarawak and Labuan, and expectations to significantly develop and improve pupils' literacy of the language.

The project, which comes under the Education Ministry's *Penutur Jati Bahasa Inggeris programme*, provides teachers in East Malaysia with one-to-one mentoring. This allows Malaysian teachers to expand their own reflective practice to take ownership of their own professional development and build new and attractive approaches in the classroom that fit the context in which they work.

(d) Let's Read Together for 10 minutes Programme

In conjunction with the World Book and Copyright Day which is celebrated on the 23rd of April, libraries in Malaysia organise the Let`s Read Together For 10 Minutes programme; held simultaneouslynationwide. It was first organized in 2014   with the cooperation and participation of all members of the Council of Directors of Malaysian State Public Libraries, Ministry of Education, State Education Department, the National Library of Malaysia, State Secretary`s Office, Federal Secretary's Office, departments, government and non-government agencies, schools, universities, private sectors, NGOs and members of the public. It is a step towards improving the awareness of the community on the importance of reading, especially among children and young adults.

(e) #Malaysia Ngaji

#Malaysia Ngaji is a programme organised by The Council of Directors for Public Libraries of Malaysia and the National Library of Malaysia . Held in the holy month of Ramadhan, all state public libraries in Malaysia also organize this program on the same date. This program aims to promote the love of reciting Quran among Muslim, experience the pleasure of reading Al-Quran in a simple and relaxed method and to create interest among Muslim to better study and practice the teachings of Al-Quran.Government departments, statutory bodies, private companies, non-government organizations (NGOs), mosques, members of the public and schools also organize similar program at their own premises.

(f) Information Literacy Workshops

Information Literacy module has been implemented since 2010 with a pilot project involving 3 schools in the Klang Valley. The National Library of Malaysia with the funding from UNESCO has developed a National Media and Information Literacy Module in 2011 to bridge the information literacy gap. This module consists of three levels that is basic, intermediate and advanced level and is conducted through community outreach programmes. To date, more than 100 information literacy workshops have been conducted and more than 8,000 people throughout Malaysia have been trained on information searching skills to improve their quality of life .The target group includes school children, university and college students, villagers,civil servants, professionals, school library teachers, people with special needs and others regardless of their social and educational background.

(g) User Education Programme

Besides conducting outreach Information Literacy Programme, NLM also conducts User Education Programme for its users to expose them to reference sources and techniques to access information available inNLM. Participants from secondary schools students and several other institutions in Klang Valley took part in the user education programme. Implementation techniques include briefing information literacy skills hands-on, quiz and library visits.

(h) Storytelling Competitions

Storytelling has always been viewed as an agent in the promotion of reading and the use of libraries.Storytelling contests seem to be a popular yearlyactivity for most public /community libraries in Malaysia. Apart from libraries, the Education Ministrythrough its Division of Co-Curriculums and Arts organizes yearly Storytelling Competitions for Primary School Pupils. The competition is carried out at school, district/division, state and national levels.

The Community Development Department (KEMAS) kindergartens throughout Malaysia hold storytelling competitions during their Students' Potential Day Programme. The annual competition provides students with opportunities to showcase and develop their talents, interests and creativity.

The State Public Libraries has been collaborating with NLM in organizing Folktales Storytelling Competition for primary school pupils as to create awareness amongst them the importance of preserving local folktales as part of our culture and heritage.

NLM has encouraged the participation of the private sector and foreign organizations to cooperate in reading promotion projects. NLM has collaborated with STAR Publications (one of Malaysia's leading newspapers) for the National Storytelling Competition, aimed at getting children to read. There has been feedback that parents and children who have never used a library before came in search of libraries and books for the purpose of the competition

(i) Readathon (*Baca Amal*)

Readathon (*Baca Amal*) project was undertaken with the cooperation of British Council where children were encouraged to read and collect money for books read. Money collected was contributed to the Association For Severely Mentally Retarded Children. The benefits of this program is two-fold i.e. children were encouraged to read and at the same time they were helping the less fortunate.

(j) Children Literature Festival

(i) Pustaka-Bookaroo Children's Literature Festival

The Sarawak State Library(Pustaka) in association with Bookaroo Trust, New Delhi, India has been holding the Pustaka-Bookaroo Children's Literature Festival since 2014. The festival offers children and book lovers a chance to meet and interact with distinguished local and foreign children's authors, illustrators, poets

and storytellers. Visiting speakers for the festival will visit schools for a variety of programmes ranging from lively storytelling to interactive talks to hands on arts and crafts

(ii) Children Literature Festival (*Festival Sastera Kanak-Kanak*)

NLM has also collaborated with Perbadanan Kota Buku "Book City" in organising children's activities during The Children Literature Festival which specialises in children's content and activities. This festival acts as a platform where authors, content creators and educators get together to discuss and share experiences on children's reading and also various activities to encourage the children to love reading. Among the activities carried out by NLM are talks for parents on book selection for children, handicrafts, kids cooking challenge, theatre performances, cultural shows and interactive I.T based activities such as e-storytelling.

(k) Jawi Script Culturisation Programme

National Library of Malaysia (NLM) is responsible in planning, managing and conducting programmes of Jawi Script Culturising at national level to uphold and dignify the status of Jawi writing among Malaysians'Semarak Jawi' Activity is a conceptualized of edutainment such as Jawi Word Building, Jawi Word Explore, Fast Jawi, Excel Jawi, Jawi Crossword, Jawi Mind, Khat Calligraphy Demonstration, Jawi Alphabet Structure, Paragraphing the Jawi, Spelling Mistake and Knowledge Test of Jawi were conducted to dignify Jawi script culture together with NLM Reading Programme, other agencies and NGOs.

(l) Computer Camps

To improve the computer literacy among children, NLM have been holding activities like Computer Camp since 1995 and the programme now is known as Kem Remaja Siber (Teenage Cyber Camp).The Computer Camp is a collaboration between the National Library andExxonMobil Malaysia. The camp enabled theparticipants to experience the advancement oftechnology hands-on, and buildtheir confidence in using technology in their daily lives. Among the programmes conducted include Bersama Meneroka Maklumat Digital, Infohunt, Jom Karang dari Internet, Kuiz Rukun Negara, Kuiz 1Malaysia, Kuiz Merdeka and others.

(m) Young Writers/Publication Programme

Local young writers are assisted by the Malaysian Government to have their literary works published. Grants are given through the Malaysian Institute of Translation and Books. With the allocations, young writers would have their works published within 3-6 months. This will help promote the book industry which is also a catalyst in reading interests among youths in Malaysia.

(n) Young Writers Workshop

This workshop, organised by Dewan Bahasa dan Pustaka is to train young writers in the field of writing and book publishing. It is in line with DBP's objective in tapping the talents

of children and young adults and guiding them to the techniques of good writing from the aspects of contents and technical writing.

The State Library of Sarawak together with University Malaysia Sarawak (UNIMAS) held a History Writing Wokshop on 15-16 June 2016. The workshop as an effort to increase appreciation in writing Malaysian history, especially among the young generation.

Publications

(i) Malaysian Children Nursery Rhymes in CD-ROM

The National Library of Malaysia also felt committed to initiate the publishing of non-printed material especially for children due to the dearth of local materials in the country. The National Library of Malaysia undertook the creation and production of the first MalaysianChildren Nursery Rhymesin Malay Language on Multimedia CD-ROM To revitalise and promote local nursery Rhymesand present them in multimedia formatto capture children's interest and preserve and popularise indigenous children's nursery rhymesamong children of thenew generation.

In 1997, National Library of Malaysia with the financial support from Esso Companies in Malaysia produced the first Malaysian Nursery Rhymes in Malay on Multimedia format.The nursery rhymes were selected from the book Dendang dan Dondang Sayang compiled by Puan Azah Aziz and Dr. Ariff Ahmad. The melodies of some of the nursery rhymes were recomposed by Dr. Ariff Ahmad, a well-known local musician attached with the Department of Culture, University Malaya. The nursery rhymes include the following titles: *Pok Amai-Amai, Tok-Tok Noyang, Buai Laju-Laju Enjit-Enjit Semut, Air Pasang Pagi, Lompat Si Katak Lompat, Can Mali dan Jong-Jong Ina*i.

(ii) Every Baby A Book Programme

The program "Every Baby A Book" is developed and is being implemented by Penang Public Library Corporation (PPLC) Malaysia and the Ministry of Women, Family and Community Development, Malaysia. The target group for this program are babies and the program involves the parents / caregivers of babies. The program was launched at the national level on 27 July 2007 by the Minister, Ministry of Women, Family and Community Development, Malaysia The basis of the program is an attractive, bilingual (English and Bahasa Malaysia) colourful, non-toxic cloth book with local content which was crafted by the library staff and printed locally.

The implementation of the program involves working with several agencies from the private and public sector-government hospitals/clinics and related governmental organisations and non-governmental organizations. It includes briefing sessions for parents/caregivers when they enrol for the program about the value of encouraging learning from early childhood and about how to use the book effectively to this end. Parents/caregivers also learn about the various stages in the physical and mental development of a baby and how these relate to thelearning process. Theyare also given guidelines on how to make reading adaily habit, how to select books from the Library for the various age groups.

(iii) Annotated Children's Bibliography (Bibliografi Kanak-Kanak Beranotasi)

This bibliographywaspublished by NLM in 2003. Itlists 275 entries from the collection of NLM. The scope of materials is from 1980-2002. This is animportant reference for parents, teachers, researchers and librarians who wish to find reading materials which is suitable for children or in doing research in this field. It list books published locally in various subjects such as history, folk tales,plants and animals, history, places and personalities.

Services That Supports Reading Promotion

(i) U-Pustaka

Ubiquitous Library (u-Pustaka) Portal(www.u-pustaka.gov.my) In order to support fostering an engaging lifelong learning among Malaysians, NLM in collaboration with Malaysian Communications and Multimedia Commission (MCMC) and consortium members consisting of eight (8) libraries in Malaysia, government agencies and private institutions has established Ubiquitous Library or known as u-Pustaka. The key objectives of establishment u-Pustaka are making information accessible to all, building a cooperative library network system and creating, sharing and exchanging knowledge in a knowledge society

U- Pustaka provides free membership registration, borrowing books online,accessing digital contents, delivery of books by courier postal services, returning of books via book drop at any of the eight consortium libraries in Malaysia.

This portal has a special dashboard for children: namely Children's Corner. This dashboard containsfunplace, story time activities, coloring, what kids should know, puzzles, educational games, lending zone, news, find a book online, and recommended reading by librarians.The Youth Corner dashboard invites teenagers to share, discuss and exchange views with their peers and professionals. Information assistance can be sought from "Ask the Librarian".

(ii) Samsung SMART Library

National Library of Malaysia unveiled Malaysia's first Samsung SMART Library at its premise in June 2014 making this first of its kind digital-book reading zone ensued from an unprecedented public-private partnership between NLM and Samsung Malaysia Electronics (SME) Sdn. Bhd. The Samsung SMART Library at NLM is poised to provide a new and interactive reading experience for Malaysians, especially children and youth, within an enhanced technology-enabled library environment.

NLM has been tasked to make information available to all and encourage the cultivation of reading habit amongst Malaysians. The SMART Library has been designed to enhance knowledge accessibility and learning through the use of the latest technology for all. In line with the Malaysian Vision to become a developed country in 2020, the Samsung SMART Library is an initial effort built to support the Government's transformation of Malaysia into a knowledge-based society. Software suitable for children is offered at Kids Zone.

Bulk Loan Services

NLM provides a form of loan known as the Bulk Loan Services . An institution can request a loan of up to 400 books for a period of 3 months. The National Library will provide the books from the available stock for this scheme and the borrowing institution is responsible to look after the collection and to provide the service. The institution has to undertake responsibility to look after the collection and to provide the service. The institution has to undertake the responsibilty and replace all lost books at a specified cost and also to collect and return the books.

This system has proved to be useful in establishing what would be referred to as reading rooms for institutions which does not have any or limited financial allocation; especially the school libraries in which this service has been a tremendous support in carrying out the NILAM programme.

Conclusion

The need to promote effective reading habit among the generalpopulace of Malaysia particularly among the children and young adults has seen libraries in Malaysia organizing various reading promotion programmes. The role of the libraries in promoting reading is especially crucial incountries like Malaysia where education is more towards examination based with focusedreading on school text books. Librarians would help children and youths developrelative ability, critical and independent thinking through their exposure to awide variety of instructional resources and learning opportunities. Withprovision and usage of library resources, readers would learn and understandwhy and how certain decisions or conclusions are reached; and the effect ofconflicting or incomplete information. Available reading materials in the librarywould show the presentation of information in different ways. The librarywould also afford the users (children and youths), the opportunity of balancingobjective and subjective arguments and develop ways of self thinking andindependent judgment.

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SCHOOL LIBRARIES IN MALAYSIA

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Abstract

School Libraries or School Resource Centres (SRCs) play an important role in facilitating the resource-based teaching-learning activities as the call for the transformation in the Malaysian education system requires a concerted effort for example, the curriculum, infrastructure, resources to support the curriculum, updated policies etc. SRCs equip students with information literacy skills and help them develop life-long learning habits, enabling them to be knowledgeable and responsible citizens. Therefore, SRCs need to be continuously monitored and upgraded, and the performance of SRCs has to be efficiently measured to ensure the success of the nation's aspiration. Currently, there are 10,188 SRCs in Malaysia. However, the facilities provided by the schools differ, usually based on several factors such as the size of the school, enrolment of students, locality, Teacher-Librarians' competencies, availability of space, financial support (grant) and the school administration's support towards SRCs and SRCs programs. With the advancement of technology, SRC should keep with the needs of the clients, the school children and teachers. It is hoped that by having a well-functioned SRC, our students are able to face the challenges of the 21st century era, and perform and function well in the knowledge society as Smart School concept, world-class education system and Vision 2020 can only be achieved by having shared vision, flexible organization of implementers at ground level, well-defined deliverables, performance-based management, continuous improvement and customer satisfaction which act as puzzle pieces of quality management standards.

Keywords: School libraries, School Resource Centres, Information Literacy Skills, Life-long learning, knowledge society, Smart School concept, World-class education system.

Introduction

As Malaysia aspires to become a developed country by 2020, it has to keep pace with an increasingly competitive global economy. The transformation of the Malaysian education system requires a concerted effort to bring the necessary changes to the curriculum, infrastructure and resources to support the curriculum and updated policies. School libraries or school resource centres (SRCs) are an integral part of the Malaysian education setting and play a key role in facilitating resource-based teaching-learning activities. SRCs provide information and ideas which are fundamental pre-requisites for functioning successfully in today's knowledge-based society. SRCs also aim to equip students with information literacy skills and life-long learning habits to become knowledgeable and responsible citizens.

The evolution of resourced-based curriculum in 1983 and later, the Smart School concept, which is

one of the seven Multimedia Super Corridor (MSC) Malaysia flagship applications, launched in 1999, has driven the management of SRCs to leverage on the advancement of educational technology. The expected students outcomes based on Malaysia Education Blueprint (2013-2025) will transform the SRCs in many ways to fulfil the needs of the 21st century students' learning approaches. The school curriculum at both primary and secondary levels is revised to embed a balanced set of knowledge and skills such as creative thinking, innovation, problem-solving, and leadership. This curriculum still stresses on student-centred and differentiated teaching, but place greater emphasis on problem-based and project-based work, a streamlined set of subjects or themes, and formative assessments, shifting towards higher order thinking skills (HOTS). It is hoped that the transformation of the Malaysian education system will prepare students to meet the challenges of a 21st century economy and rapidly globalizing world as envisioned in the six key attributes as shown in Figure 1.
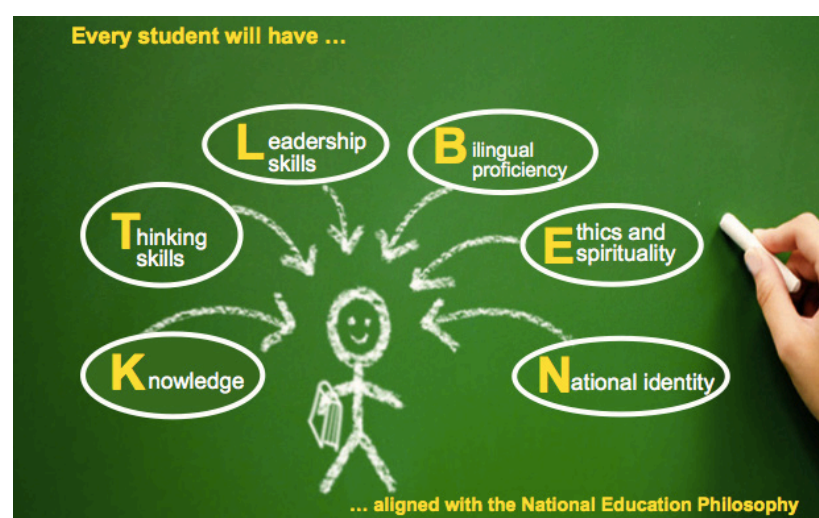
Figure 1. Student aspirations based on the Malaysia Education Blueprint (2013-2025)

Efforts to increase the quality of SRC management and subsequently the quality of resource-based and ICT-based teaching-learning processes are enhanced to cater to this development. SRCs need to be continuously monitored and upgraded, and the performance of SRCs has to be efficiently measured to ensure the attainment of the nation's aspiration. As of 2017, Malaysia has a total number of 10, 188 schools, 76% (n=7,772) of the schools are primary schools and 24% (n=2,416) are secondary schools. Currently, Malaysia has a total enrolment of 5.1 million students (200,684 preschool students; 2.7 million primary school students and 2.2 million secondary school students) and 412, 828 teachers.

School Resource Centers (SRCs)

The management of SRCs as shown in **Figure 2**, is under the purview of the Educational Technology Division (ETD), Ministry of Education. Based on this hierarchical structure, all levels have been working together ETD very closely since the establishment of the ETD and the shift of SRC function from the School Division to ETD, beginning in 1988, to coordinate programmes and activities related to the utilization of instructional technology. The spirit of *gotong royong* or mutual cooperation, which is a part of Malaysian culture, is optimized and reflected in SRC programmes and activities at all levels thus boosting SRC's success.

Figure 2. The Educational Technology Division and its network

As a rule of thumb, where there is a school, there will be a SRC, be it in the urban, rural or remote areas. Currently, there are 10,188 SRCs in Malaysia. However, the facilities provided by the schools differ, usually based on several factors such as the size of the school, enrolment of students, locality, Teacher Librarians (TLs) competencies, availability of space, financial support (grant) and the school administration's support towards SRCs and SRCs progr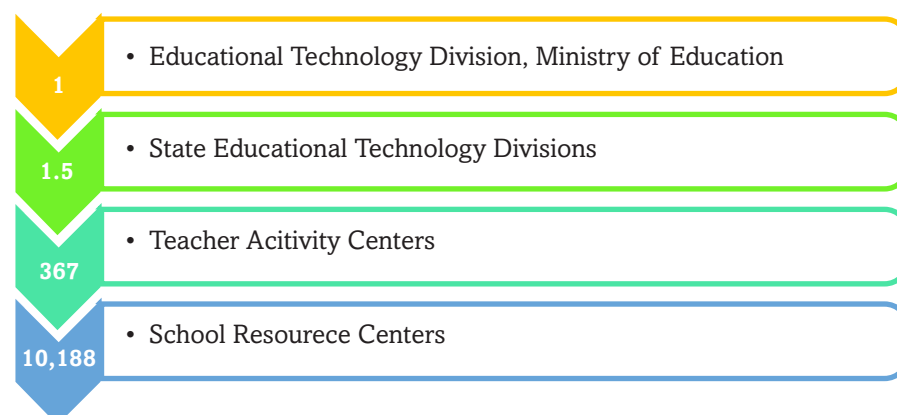ams. SRCs aim to provide a range of learning opportunities for both large and small groups as well as individuals with a focus on intellectual content, information literacy, and the learner. In addition to classroom visits with collaborating teachers, the SRCs also serve as a place for students to do independent work, use computers, audio-visual equipment and research materials as well as hold special events such as thematic exhibitions and reading club activities.

SRC generally consists of a minimum of three main rooms i.e. reading, audio-visual and teaching-learning materials. However, some schools especially those with a big population of students may extend the SRC network to more than these three basic rooms by including other rooms like self-access centres, science labs, computer labs and even classrooms. Since 1989 , all newly built schools are given the whole floor of the building which is equivalent to four classroom space for the SRC.

The SRC programme is a collaborative venture in which the teacher-librarians, teachers, and administrators work together to provide opportunities for the social, cultural, and educational growth of students. Activities that are part of the school library media programme can take place in the school library media centre, and other SRCs' linked facilities such as the audio-visual room, computer laboratory, and Access Centre and other special rooms set up by the schools.

Financial Support

Two types of grants are allocated yearly to all government and government aided schools based on per capita of student population. Primary schools, with a minimum of 100 students, receive RM2,000.00 a year whereas primary schools with 1000 students will get RM13,700.00 Additional students will receive RM12.00. For secondary schools, with a minimum of 100 students will receive RM1,500.00 a year, whereas secondary schools with 1000 students will get RM13,600.00 . Additional students will receive RM12.00. The allocation is almost double in comparison to 2002 allocation at RM6,900.00.

With the rising cost of books and other resources, the grants, especially in the under-enrolled schools, are insufficient to purchase quality books and other resources. The school community has to creatively

source additional funds so that SRC programmes and activities can be undertaken to benefit the children, such as by having smart partnership programmes with outside agencies. Book collection is one of the most important features in SRC as it provide the means with which to increase access and equality in education. The Ministry of Education has set a minimum ratio of books to primary school students at 1:15 and of books to secondary schools students at 1:20.

Teacher-Librarians

SRC is managed by a TLs who is also a full-fledged subject teacher. To ensure that TLs have time to manage and organize the SRCs, the Ministry of Education appoints full-time TLs in schools to support the implementation of SRC and Smart School programmes. Full-time TLs are allotted to teach only 6-8 periods a week but should spend 18-20 hours a week to manage SRCs with the assistance of the schools' SRC committee members. However, under-enrolled schools only have part-time TLs. A competent TL understands and appreciates the concept and philosophy of SRC as a knowledge institution. Even though there is no policy for trained TLs in Malaysia yet, efforts are undertaken to ensure TLs are given training in library science and information management to assist them in doing their day-to-day job.

Day-to-day SRC management and services is improved and made more efficient by having library automation. Apart from that, it helps create a better awareness of ICT utilization and generate interest in information-related programs conducted by the schools. Puan Hjh Fatimah bt Jusoh , who was the Principal Assistant Director at ETD in 2002 indicated in her study that only 22% SRCs was automated. However, in 2016, 99% SRCs reported that they use automation. This shows that efforts by various quarters to promote effective library management using ICT is supported by the TLs and has proved to be fruitful.

NILAM Reading Program

NILAM is the acronym for Nadi Ilmu Amalan Membaca or loosely translated as 'Reading: The Pulse of Knowledge'. It is a year-round reading program, launched by the Ministry of Education in 1999. NILAM integrates and incorporates all reading activities in schools whereby students who participate actively in the reading program, are given rewards and recognitions based on their reading records. Both SRC and parents become part of the NILAM reading program so that students are constantly surrounded by books and a reading environment. The SRC implement reading activities, develop a good collection of books and allot time for reading either in the school timetable or outside school hours. Parents too get involved by spending some time reading books to their children and also provide reading materials at home. According to the 2014 NILAM Report, Malaysian students read 23 books a year on average.

Conclusion

Central to the knowledge economy is a highly skilled and capable workforce to drive innovation, creativity and productivity. It is important to equip the workforce with specialised skills to facilitate growth in the various sectors. The Eleventh Malaysia Plan, (2016-2020), therefore, emphasises on driving ICT in the knowledge economy through innovation and productivity to enhance competitiveness and wealth creation. It is hoped that by having a fully functioning SRC, our students will be able to face the challenges of the 21st century era, and perform and function well in the knowledge society.

Primary students are reading books at the SRC

SRC Assistance Program at an Orang Asli school in Perak (SK Ulu Geruntum, Gopeng, Perak)

Teacher-Librarians work together to improve the SRC

NILAM activity at the SRC

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OPEN SCIENCE: HOW LIBRARIES CAN SUPPORT INCLUSIVE AND INNOVATIVE RESEARCH COMMUNITY

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Abstract

The Open Science agenda has been established to promote availability of open research information and open publication procedures. Academic libraries have been advocating openness in science and research, believing that Open Science will deliver increased transparency, better quality research, and faster scientific discovery; thus enabling the more effective utilization of research data and results for the greater benefit of society. Libraries, repositories and data centres have been explicitly included as key actors of Open Science and even endorsed publicly by international organisations and stakeholders. This paper conceptualizes Open Science, explores the benefits of Open Science to the research community as well as general society and provides evidence to support the idea that academic libraries play an important role as enablers of Open Science and ultimately an inclusive and innovative research community. Four conceptions of Open Science are presented thematically: (a) Open Science as a research process; (b) Open Science as a taxonomy; (c) Open Science as the movement; (d) Open Science as School of Thought. The paper also describes Malaysian researchers' general understanding about Open Science and the perceived roles of the academic library. Malaysian researchers have an overall picture of what form Open Science and what it might take. More notably, they recognize the involvement of the academic libraries especially in relation to (a) developing open access policies and roadmaps (b) contributing to the development of research data management (RDM) policies and strategies for home institutions (c) training and supporting for researchers to open their research workflows, sharing and reusing research output produced by others; and (d) providing support to the Open Science infrastructures and tools. This calls for academic librarians whose jobs involve supporting or conducting research, to develop research competencies, and the academic libraries to source research training for research data management and Open Science.

Keywords: Open science; Open access; Open data; Research data management; Scholarly communication; Embedded librarianship; Academic libraries.

Introduction

Higher education in the Open Science is a complex, dialectical and exciting opportunity which can potentially enable an inclusive and innovative academic society. Open Science practices are "breaking barriers that prevent the free flow of knowledge produced by researchers" (Crouzler 2015, p.11). It has the potential to speed up knowledge transfer among scientists and scholars and their scientific disciplines, to foster the growth of new types of scientific cooperation and to stimulate collaborative research. Countries worldwide have established the Open Science agenda and initiative to promote

the availability of open research information and open publication procedures. Along with this initiative, academic libraries advocate openness in science and research, believing that Open Science will "*deliver increased transparency, better quality research, higher level of citizen engagement, and faster scientific discovery*" (LIBER 2014, p.1); thus enabling the more effective utilization of research data and results for the greater benefit of society. The OECD (2015) explicitly includes libraries, repositories and data centres as key actors on Open Science, together with researchers, government ministries, funding agencies, universities and public research institutes, private non-profit organisations and foundations, as well as scholarly publishers. The role of libraries on Open Science has been recognised and discussed at multiple platforms, and even endorsed publicly by international organisations and stakeholders. For example, in supporting academic libraries in the transition to Open Science, the European University Association (EUA) has since 2007, developed a series of initiatives related to the implementation of institutional policies on Open Access to research publications (Lorenco & Borell-Damian 2014). This is natural, and academic libraries in Malaysia have been most involved in Open Science with regards to open access to publications and more recently, open data.

Objective

The objectives of the paper are threefold:
- (a) to conceptualize Open Science and explore the effect of Open Science to the research community and general society;
- (b) to provide evidence to support the idea that academic librarians play an important role as enablers of Open Science.
- (c) to describe researchers' general understanding about Open Science and the perceived roles of the academic library;

Method

This paper identifies, analyses and synthesize the available relevant and important professional and scientific literature to address the research objectives. It also uses findings from Abrizah (2016; 2017) on Malaysian early career researchers' (ECRs) understanding of Open Science to provide evidence to support the idea that university librarians play an important role in this technological innovation undertaken by their organisations. The study, which is a part of a larger international study conducted in seven countries (China, France, Malaysia, Poland, Spain, UK and USA) provided a benchmark of ECR behaviours and attitudes against which future changes in scholarly communication could be measured and the results have been disseminated extensively (Nicholas et al. 2016; Nicholas et al. 2017b; Nicholas 2017c; Rodriguez Bravo, 2017).

Conception and Effects of Open Science on the Mission of Research Universities

Open Science involves a normative requirement for opening up science, with main aspects such as open access to research data and publications, and is changing the way research is produced, accessed and utilized, and diversified. There are multiple approaches to the term and definition of Open Science, and this paper has identified four conceptions of Open Science, presented thematically as:
- (a) Open Science as a research process
- (b) Open Science as a taxonomy
- (c) Open Science as the movement
- (c) Open Science as School of Thought

(a)   Open Science as promoting openness in the research process

The literature put forward the idea that Open Science is about extending the principles of openness to the whole research cycle (Open Science and Research Initiative 2014), fostering sharing and collaboration as early as possible thus entailing a systemic change to the way science and research is done. The OECD defines Open Science as: "*to make the primary outputs of publicly funded research results – publications and the research data – publicly accessible in digital format with no or minimal restriction*" (OECD, 2015, p.7). It represents "a new approach to the scientific process based on cooperative work and new ways of diffusing knowledge by using digital technologies and new collaborative tools" (European Commission, 2016; p.33). Therefore, achieving Open Science requires extending the principles of openness to at all stages of the research process, in the formulation of research objectives and/or hypothesis; data collection; data processing and analysis; storage of data and research output; preservation of data and research materials; publication and distribution; and usage **(Figure 1)**. Libraries are mainly involved in last three stages of the research process; and of late in the fourth stage (storage of data and research output) related to public availability and reusability of scientific data.
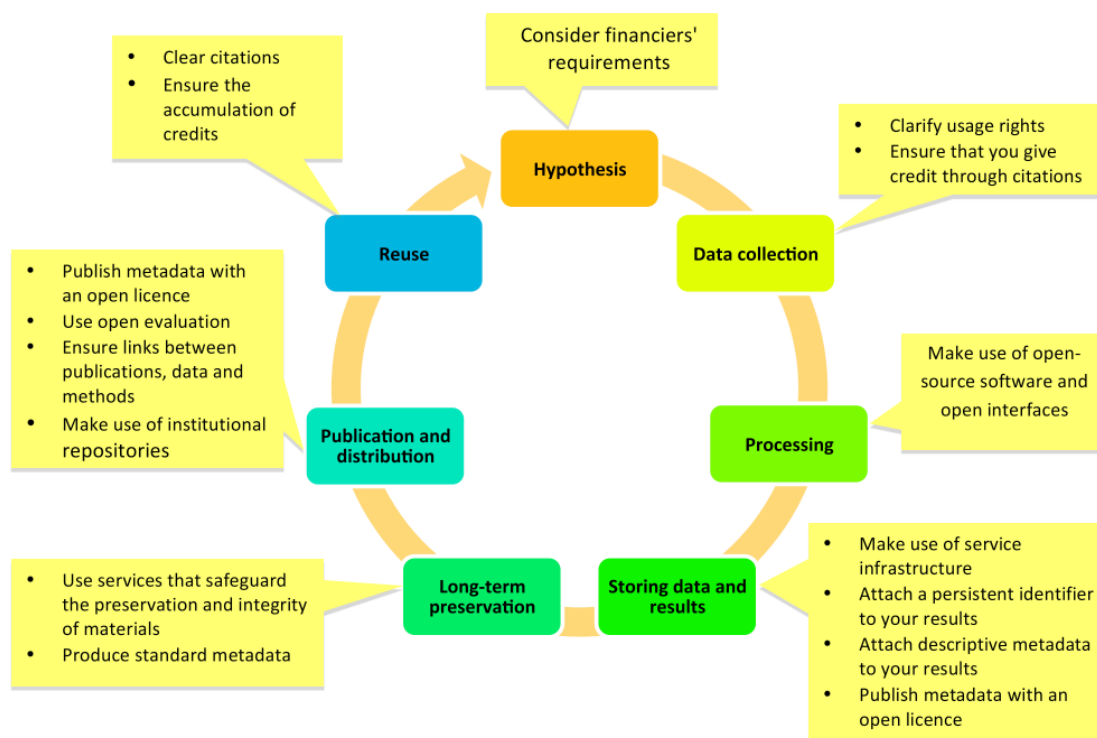

Figure 1: Open Science as a research process (Open Science and Research Initiative 2014)

(b)   Open Science as a taxonomy of scholarly communication

With the European Commission promoting Open Science and the term "Open Science" has been widely used, the focus of academic libraries is predominantly on open access to

publications and research data. These are undoubtedly extremely important issues, but not the only ones. It is still unclear to many librarians and repository managers as well as research stakeholders (such as funders, policy makers, researchers, administrators) on how Open Science can be achieved. To address this issue, FOSTER (Facilitate Open Science Training for European Research) a European Commission funded project, initiated an e-learning platform[1] to advance the stakeholders' knowledge on the usefulness of Open Science and explain the technicalities, strategies and best practices using which Open Science can be applied. Pontik et al. (2015) explore how FOSTER defines the Open Science domain by building a taxonomy in the field and come up with nine taxonomy terms that are used at the first level: Open Access, Open Data, Open Reproducible Research, Open Science Definition, Open Science Evaluation, Open Science Guidelines, Open Science Policies, Open Science Projects and Open Science Tools **(Figure 2)**. These nine main taxonomy terms were then further divided into sub-topics, to better describe and classify the field. The predominant terms Open Access, Open Data, Open Reproducible Research, Open Evaluation, Open Science Policies and Open Science Tools, were further explored. Three terms (Open Science Definition, Open Science Guidelines and Open Science Projects) are not divided further. The creation of a relationship between broad and narrow terms (which is familiar to librarians) would not only be essential to achieve the goals for the taxonomy creation and address successfully the aforementioned purposes, but also facilitate users understanding of the Open Science domain and the concepts around it. This would not only educate the research stakeholders on Open Science, but also build a community of researchers, librarians, software developers, funders and research administrators who are interested in Open Science in order to advance the way research is being conducted and shared.

(c) Open Science as the movement to make scientific research and data accessible to all

Open Science has also been frequently defined as an umbrella term that involves various movements aiming to remove the barriers for sharing any kind of output, resources, methods or tools, at any stage of the research process. Bueno de la Fuente (n.d) describes Open Science facets as a beehive covering eight movements that fall into the boundaries of Open Science **(Figure 3)** – Open access to publications, open research data, open source software, open collaboration through scientific social network, open peer review, open notebooks, open educational resources, and citizen science. In this theme, a distinct science ecosystem, not indicated in the previous two conceptions appear: Citizen science where citizens become new players of the research ecosystem. They will shape science policies and contribute to scientific research through citizen science actions and by funding researchers. Open Science also means that the latest scientific knowledge should be available to all citizens. New services help researchers communicate their research to non-researchers by publishing lay summaries, designing graphic representations and/or video of research results, or helping the traditional media better understand the latest discoveries. Citizens also have the opportunity to participate in research through citizen science platforms such as blogs. These new partnerships between society and researchers will broaden significantly with the transition towards Open Science.

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[1] The e-learning platform (https://www.fosteropenscience.eu/) contains quality assured information relating to the topic and it is open to everyone in the world.

Figure 2: Open science as a taxonomy
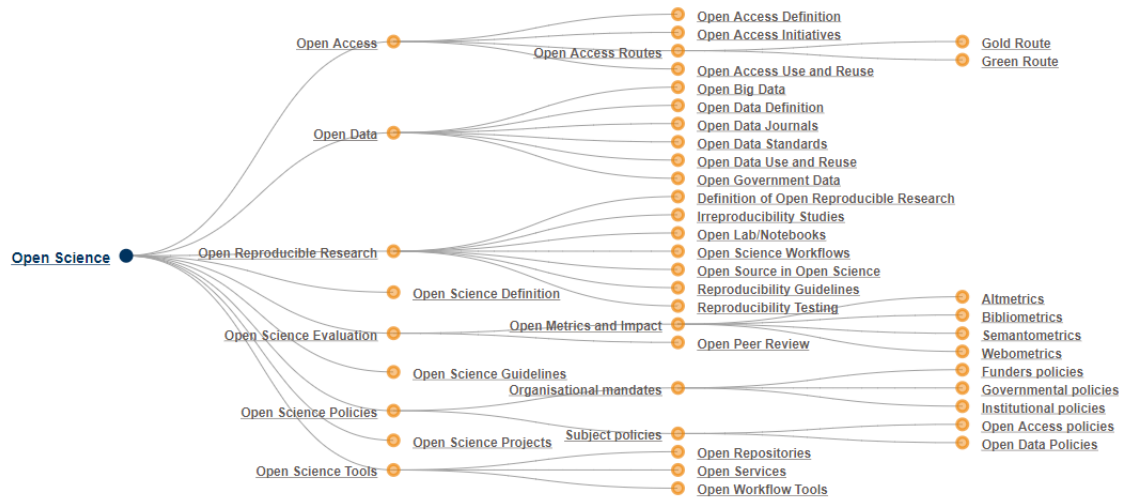**(https://www.fosteropenscience.eu/foster-taxonomy/open-science)**
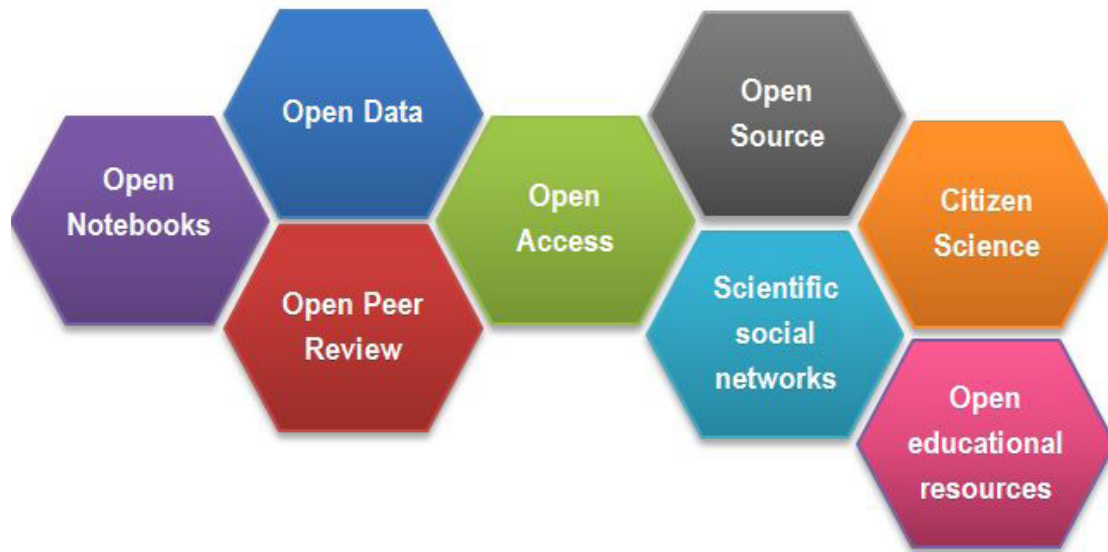
Figure 3: Open Science as a Movement (Bueno de la Fuente, n.d)

(d) Open Science as School of Thought about knowledge creation and dissemination

Open Science has also been described as an umbrella term encompassing a multitude of assumptions about the future of knowledge creation and dissemination. Fecher and Friesike (2014) have synthesized and structured selected literature, and suggested five Open Science schools of thought **(Table 1)**. The *infrastructure school* (which is concerned with the technological architecture), the *public school* (which is concerned with the accessibility of knowledge creation), the *measurement school* (which is concerned with alternative impact measurement), the *democratic school* (which is concerned with access to knowledge) and the *pragmatic school* (which is concerned with collaborative research).

Table 1: Open Science as School of Thought (Fecher and Friesike 2014)

School of thought	Central assumption	Involved groups	Central Aim	Tools & Methods
Democratic	The access to knowledge is unequally distributed.	Scientists, politicians, citizens	Making knowledge freely available for everyone.	Open access, intellectual property rights, Open data, Open code
Pragmatic	Knowledge-creation could be more efficient if scientists worked together.	Scientists	Opening up the process of knowledge creation.	Wisdom of the crowds, network effects, Open Data, Open Code
Infrastructure	Efficient research depends on the available tools and applications.	Scientists & platform providers	Creating openly available platforms, tools and services for scientists.	Collaboration platforms and tools
Public	Science needs to be made accessible to the public.	Scientists & citizens	Making science accessible for citizens.	Citizen Science, Science PR, Science Blogging
Measurement	Scientific contributions today need alternative impact measurements.	Scientists & politicians	Developing an alternative metric system for scientific impact.	Altmetrics, peer review, citation, impact factors

Benefits of Open Science to the Research Communities and General Society

The research community benefit from Open Science in different ways, including increased visibility (citations, mentions in social and other media), increased credits (references to publications, data and methods, awards for openness), increased funding (rewards for openness, awards for clear definitions of copyright/proprietary rights), and improved networking (new opportunities, better workload distribution, better results analyses) (Open Science and Research Initiative, 2014). The values of Open Science however, are not constrained to the scientific community or researchers themselves. They extend to the whole society, including citizens, the public and private sector, and as it will be addressed later in the next section, to libraries as enablers of Open Science. OECD (2015) has summarized the overall benefits of Open Science in the following factors:

(a) Efficiency: greater access to scientific inputs and outputs, can improve the effectiveness and productivity of the research system, by reducing duplication and the costs of creating, transferring and reusing data; allowing more research from the same data; multiplying opportunities for national and global participation in the research process. In this sense, openness to data facilitates reproducibility of research.

(b) Quality and integrity: open access to scientific outputs, data and other assets that support the research process offer the opportunity of a wider evaluation and scrutiny by the scientific community, thus allowing a greater and more accurate replication and validation of research results. This openness also facilitates an early identification of any malpractice at science, such as fraud, misconduct or errors, and therefore being easier to denounce and drop-out these practices in the benefit of scientific integrity. In this sense, openness to data contributes to maintain science's self-correction principle.

(c) Economic benefits: increased access to research results can foster spill overs not only to scientific systems but also innovation systems more broadly, as well as increase awareness and conscious choices among consumers. Science plays a key role in today's knowledge economies and in this sense, the higher efficiency associated to Open Science would not only benefit advanced economies but also developing countries.

(d) Innovation and knowledge transfer: Open Science can reduce delays in the re-use of the results of scientific research including articles and data sets by institutions, companies and individuals. In this sense, it promotes a swifter path from research to innovation to produce new products and services.

(e) Public disclosure and engagement: Science should be open for the whole society, so it may promote awareness among citizens. It evidences the outcomes of public funded research, and would help to build trust and support for public policies and investments. Moreover, it promotes citizen's engagement and even active participation in scientific experiments and data collection.

(f) Global benefits: Open Science is inevitably international and the research community must take advantage of it. It can promote collaborative efforts and faster knowledge transfer for a better understanding of challenges that require coordinated international actions such as climate change, the ageing population, sustainable development and could help identify solutions more effectively.

Roles of Libraries as Enablers of Open Science

The role of libraries on Open Science has been recognised and discussed at multiple fora, and even endorsed publicly by international organisations and stakeholders. It is natural, as academic libraries are already supporting a good part of what constitutes Open Science as open access to publications and more recently, open data. Libraries are extensively present at the Commission Recommendation on *Access to and Preservation of Scientific Information in Europe* (European Commission, 2012). The OECD (2015, p. 12) explicitly identifies the role of libraries as enablers: "*Libraries have adapted their role and are now active in the preservation, curation, publication and dissemination of digital scientific materials, in the form of publications, data and other research-related content. Libraries and repositories constitute the physical infrastructure that allows scientists to share use and reuse the outcome of their work, and they have been essential in the creation of the Open Science movement*" In the United Kingdom, the Royal Society includes a recommendation on universities and research institutes to play a major role in supporting an open data culture, and libraries are a key component for it (Royal Society 2012), such as in the form of LOCKSS initiatives (Lots Of Copies Keep Stuff Safe) global archive that preserves content for libraries and scholars.

As has been suggested, libraries and librarians can play a significant part in the development of Open Science, and several roles and measures have been identified for the different conceptions and facets of Open Science (Open Access, Open Data, Open Educational Resources, Citizen Science, etc.). However, there is no doubt that currently the focus is primarily on the "data" and its management and this has been identified as a prominent role for libraries in Open Science. Some of the ways in which libraries can fulfil their role of enablers and have their say are:

(a) Preserving, connecting, and versioning all scholarly content to foster discovery, accumulation of evidence, and respect for uncertainty.

(b) Applying curation and data management expertise throughout the research lifecycle, not just retrospectively.

(c) Giving support to the infrastructures to share articles or data, including repositories; keeping with their involvement and responsibilities in the development and governance of repositories of publications and data, in regards to appraisal, selection, description and metadata application, curation and preservation; information retrieval; monitoring data reuse, citation and impact, etc.

(d) Contributing to the development of research data management (RDM) policies and strategies at their home institutions and carrying RDM themselves;

(e) Advocating and raising awareness on the benefits of Open Science. Libraries can advocate within institutions to develop open access policies and roadmaps. This will benefit not only researchers, but also other stakeholders at institutional level and international level, and even the whole society, promoting Open Science and engaging with citizens.

(f) Training and supporting researchers to open their research workflows, sharing and reusing the research outputs produced by others. Librarians can offer guidance, training and services in: the provision of information during the exploratory stage of research;

funding opportunities and requirements; bibliography and data management; applying metadata; identification of open research methods and tools for analysis; outputs sharing and publication; data citation; licensing and other intellectual property issues; preparing data for deposit and long-term preservation of data, among others.

(g) Advocating that institutions also evaluate researchers based on both the content of their discoveries and the process by which they were discovered, not only on where those results are published.

There have been studies around the role of academic libraries and research data (Johnsson and Åhlfeldt, 2015; Tenopir et al. 2014) and there are well-documented calls to develop skills and career paths for the various data-related professions such as data analysts, data managers, data curators and data librarians (Science International, 2015). It is also part of the European Open Science Agenda, as the policy action to remove the barriers to Open Science includes the objective of addressing low e-skills amongst researchers and underuse of professional support such as librarians and repository managers. The report by Research Libraries UK to (Auckland, 2012) listed the following ability, knowledge and skills needed for subject and liaison librarians to effectively support the evolving information needs of researchers in Open Science:

(a) to advise on preserving research outputs;

(b) to advise on data management and curation, including ingest, discovery, access, dissemination, preservation, and portability;

(c) to support researchers in complying with the various mandates of funders, including open access requirements;

(d) to advise on potential data manipulation tools used in the discipline/subject;

(e) to advise on data mining;

(f) to advocate, and advise on, the use of metadata;

(g) to advise on the preservation of project records (e. g. correspondence);

(h) to assist researchers to identify potential funders and sources of research funding;

(i) to develop metadata schema, and advise on discipline/subject standards and practices, for individual research projects.

Researchers' Conception of Open Science and their Perceived Roles of Libraries

A total of 12 early career researchers (ECRs) from five research intensive universities were interviewed. In the context of Malaysia, ECRs are researchers between 30-39 years old, who are not more than ten years from receiving their doctorates operating without tenure. They represent the future of research in Malaysia and their attitudes as well as behaviour matter. The first year (Abrizah 2016) basically provided a benchmark of behaviours and attitudes against which change could be measured

specifically their attitudes to peer review, publication behaviour and collaboration, knowledge sharing, open access, social media and emerging impact mechanisms. Therefore, the second-year report (Abrizah 2017) concentrates on the changes in the ECRs scholarly communication attitudes and behaviours.

In relation to the question on transformations of scholarly communication – Open Science and the roles of libraries – the first year findings (Abrizah 2016) revealed that ECRs believed journals will still have a central role five years down the line in Open Science, however not everyone thought so for libraries. However, in Abrizah (2017) more researchers believe that the library will still have a central role and equate the importance of libraries to journals. All still believed that WoS and Scopus indexed-journals will still have a central role five years down the line. "*Journal will still be the core of evaluation tool*". In fact, ECRs felt that indexation status is a priority and journals that are not indexed in citation databases would not be getting enough submissions and finally will die off. As journals and publication it in has become more expensive, they are absorbing a greater percentage of library budgets and library would be more selective in journal subscription. As one non-science ECR put it "*if the library manage to kill of the journals, then the library will go as well*" (ECR11).

Researchers acknowledge visiting the library either physically or virtually because of the technology, and felt that the librarians are more proactive with the services they rendered, as indicated by the following positive verbatim statements coming from the non-sciences:

The library is changing. I recently came for the thesis, and then I stay for the technology".(ECR11)

"I go there physically and virtually" (ECR4)

"The librarians are more proactive, they go out to the faculty and ask us for our research outputs, we do not have to send to them!"(ECR4)

"The thesis is now available online, full-text, access to the online databases must be sustained" (ECR4)

"The library now has research librarian, they provide customized solutions to research group! He helps searching literature, analyzing, scoping or summarizing literature, and maintaining current awareness for our research group. (ECR4)

There are also little but significant changes regarding ECRs' general understanding about the technological innovations Open Science. There are more informed, if not active proponents of Open Science. This time around, all acknowledged having come across the terms "Open Access", a few mentioned "Open Data"; only one is familiar with the concept "Open Peer Review". Only one ECR seems to be keen on open peer review and has "tried out" post-publication peer-review on platforms such as F1000Research and PubMed Common." *I think it is a cool platform for novice reviewer to practise reviewing skills, and the important thing is that we can decide to reveal our details or remain anonymous*" (ECR9). Findings indicate that to the ECRs, Open Science still incorporate the elements of publication, data and research, and making them publicly available to the society. Findings comparing the changes in the two years' ECRs' understanding of the phenomenon are presented in **Table 2**.

Among the perceived roles of the academic libraries that emerge are: (a) advocating within institutions to develop open access policies and roadmaps' (b) contributing to the development of research data management (RDM) policies and strategies for home institutions and hosting the RDM; (c) training and supporting for researchers to open their research workflows, sharing and reusing research output produced by others; and (d) providing support to the Open Science infrastructures and tools.

Table 2: ECRs' Understanding of Open Science

Open Science components	Its meaning to the ECRs	2016 No of mentions	2017 No of mentions
Open workflows	Transparent research workflow Better return ROI for public funding	3 3	3 3
Open access	Optimise use and reuse of research output Open access of research output / scientific papers Making sure that your research work can be read Making scientific research, data and dissemination accessible to all levels of society Science is publicly funded, so research output should be publicly accessible	3 4 2 1 1	3 5 2 1 1
Open source tools	Free research tools e.g. Mendeley, Plagiarism detection software	3	5
Citizen science	Increase collaborators and research network Research contributing to societal impact The public having access to the scientists/output	3 3 -	3 3 1
Open reputation	Having stronger research profile Citation advantage	3 2	5 2
Open data	Data sharing to increase impact	4	6
Open peer review	Post-publication peer-review, provide comments after a paper has been published	-	1

Conclusion

This paper has presented the conceptions of Open Science in four themes: (a) Open Science as a research process; (b) Open Science as a taxonomy; (c) Open Science as the movement; (d) Open Science as School of Thought. It also has explored the benefits of Open Science to the research community as well as general society and provided evidence to support the idea that academic libraries play an important role as enablers of Open Science and ultimately support an inclusive and innovative research community. Libraries involvement in Open Science will support a research society for all, that leaves no researchers behind, the one in all individuals and groups, irrespective of age, gender, academic position and disciplines can take part. Libraries involvement will also ultimately support innovation in open scholarly communication, which is often viewed as the application of better solutions, accomplished through more-effective products, processes, services, technologies, or business models that are readily available to the research community.

Malaysian researchers have an overall picture of what form Open Science might take: openness and transparency in sharing of research resources, measuring impact, and providing training and opportunity to build research program and knowledge building for them. More notably, they recognize the involvement of the academic libraries since the movement for open access and repositories became global, and more recently in regards to research data curation, research data management and open data. The roles of libraries and librarians on the current scientific environment is not a new one. It has received considerable attention and has been the object of literature, events, surveys and community discussions. This adds up to the constant and generalised debate for academic librarians and libraries to identify, define and defend their roles as key players in the propagation of Open Science, even though, especially for the library and information domain, the focus is usually placed on two of these movements: Open Research Data and Open Access to scientific publications. This calls for academic librarians whose jobs involve supporting or conducting research, to develop research competencies, and the academic libraries to source research training for research data management and Open Science, and ultimately serve as hubs for scientific collaboration. It is indeed a profession and an institution faced with a constant need to adapt to a changing environment. For good or bad, it must prove itself and remain guarded.

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OLD BUT GOLD: YOUR VALUABLE SOURCES FROM THE PAST

By

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Abstract:

Rare books, manuscripts and special collection have significantly recorded historical documents of the country. This is why rare books, manuscripts and special collection are considered to be extremely important as a primary source of our history and events. It is also considered as a national heritage and evidence of our civilization. Many of the most significant events and history have associated with this collection. Preserving and promoting this collection helps us to comprehend important societal ideals and traditions. The library, as a guardian of this collection, not only just preserve, but has to promote the special collections to the society, especially the younger generation and must not consider special collections as mere ornaments of the library. In Malaysia, many still do not realize the existence and the value of the special collection. To ensure the Malaysian society recognize the importance and the existence of a special collection, the National Library of Malaysia has taken various efforts and initiatives to promote the special collection to the public. The National Library of Malaysia holds approximately 2,623 of rare books and 4,884 of Malay manuscripts. One of the Malay manuscripts titled Hang Tuah is in the UNESCO Memorial of the World Register 2001. The National Library of Malaysia is determined to not just display rare books and Malay manuscripts as museum pieces but as a usable collection and accessible to all.

Keywords: Special collections, Rare books, Malay manuscripts.

Introduction

Old is gold, a term used to describe rare books and special collection (my shorthand "special collection" included manuscripts), is very precise because it contains valuable primary information which is both priceless and important. We constantly discover new information in rare books and special collections, and realize that everything old is new again. Libraries collect and preserve rare books and special collection materials because of intellectual and cultural heritage, providing access to unique research resources. Henrici, (2015) divided the value of special collections into four main values, namely:

1. Informational value - this is the research value that is offered in relation to places, people, events, periods, projects or processes.
2. Administrative value - this is the functional usefulness of the resources to an organization such as is found in records of activities.
3. Artefactual value – this is in the case of rare items or interesting objects where the value is derived from the nature of the material.
4. Associated value – this is where materials have a relationship to an eminent person, e.g. Nelson Mandela's personal diary.

Unfortunately, many library users, such as undergraduate students, professionals, secondary school students and public users, find rare books and special collections as difficult and restricted access compared to other library collections. All the rules and long process make it difficult to encourage users to use all these collections. New users might also find that rare books and special collections are the most intimidating section. Well, rare books and special collections are like gold and priceless in terms of information value. Like gold, they are kept in very high security storage and the same goes to the rare books and special collections. This is to prevent this collection from damage, missing, mutilation or theft because this collection consists of the only copies left and cannot be replaced with other collections. Librarians should have a major shift in order to encourage young readers to read and refer to rare books and special collection as major shift in term of managing rare collections and their primary sources regardless of their purposes. Underutilization of this collection will prove the weakness of the librarians to disseminate very important and valuable primary sources to the society. After all, what is the purpose in keeping and preserving the rare books and special collection if no one utilizes the materials?

Background

National Library of Malaysia (NLM) has an excellent range of rare books and special collections that reflects the intellectual heritage and history of Malaysia. These collections provide rich resources for learning and research, and attracted 4,470 visitors in 2016. These collections also represent a significant achievement of the NLM research infrastructure and a crucial research resource, and are used in a variety of ways by library users, who ranges from international scholars, local scholars, and special collections enthusiasts. Rare books and special collections are resource for arts, history, medicine, astronomy, Islam, language, culture and others subjects. Based on this reason, NLM is devoted to collecting, organizing, preserving, describing, and providing access to primary source materials to the society across varieties of initiatives to ensure all Malaysians benefit from these collections. By exposing this "hidden collection" and information to the society, it will change the research patterns.

There are two centres in NLM which manage and preserve the rare books and special collections, the Malaysiana and Foreign Reference Division, and the National Centre of Malay Manuscript. The Malaysiana and Foreign Reference Center comprises of library materials published in Malaysia and overseas whose whole or larger part of the content is related to the publications date or the language used. The collection includes rare books and other special collections such as personal collections, archive collections, ephemeral collections and maps collections. NLM holds approximately 2,623 copies of rare books, 31,416 copies of personal collections, 74,255 copies of archive collections, 24,855 copies of ephemeral collections, 917 copies of restricted/classified/banned collections and 8,518 copies of maps collection. The National Centre of Malay Manuscripts holds approximately 4,884 copies of original Malay manuscripts and microfilms copies.

NLM's Outreach Awareness Strategies for Rare Collections and Special Collections

Over the past years, the NLM is planning comprehensive strategies to attract new users of the rare book collections and special collection such as undergraduate students, secondary school students, and community groups, and also as a means of broadening our reach. According to Harris and Weller's (2012), "special collections librarians should develop plans and programs for outreach that encompass

not just the traditional activities of outreach such as collection "show and tells" and exhibits. Part of outreach programs will naturally include these, but should also look to effective use of social media, collection dissemination through digitization, active instruction and partnerships with schools, and friendly, efficient, and helpful customer service" (p.302).

Heritage Tourism

In terms of knowledge tourism, rare books and special collections should be seen as part of heritage tourism along with the other heritage tourism items such as buildings, cultures and other heritage attractions. Library, as a knowledge institution, is an important factor behind the development and improvement of heritage tourism. By definition, knowledge tourism enables places which are not tourism-oriented and do not receive many tourists throughout the year, to make a tourism offer owing to their collection resources. NLM offers a variety of rare books and special collections including Malay manuscripts which can attract more visitors appreciate and learn about their history and culture through these collections. The NLM holds a number of valuable, unique and distinctive collections as a main attraction for tourists to visit and to understand Malaysian history and culture. *Hikayat Hang Tuah* is one of the special Malay manuscripts is listed in the UNESCO Memorial of the World Register 2001. *Kitab Tib*, a Malay traditional medicine manuscript is also one of the unique collection that visitors could read to learn and understand about Malay medicine. Rare books collection also offer a comprehensive information on Malaysia's history, cultures and languages. The oldest rare book in NLM is a bi-language dictionary published in 1631 titled Dictionarivm Malaicvm-Latinvm & Lation-Malaicvm. These golden collections successfully attract significant numbers of tourists. In 2015, 3,625 local tourists and 181 international tourists visited NLM and this number continued to increase in 2016 which was 4,211 local tourists and 259 international tourists visiting NLM. Rare collections, personal collections and Malay manuscripts are among the most popular collections visited by local and international tourists.

Exhibitions

NLM used exhibitions to promote rare books and special collections and considered them as a successful medium through which librarians can make rare books and special collections more accessible to both scholars and the public. Brewerton (2004) said that "displays of resources are one of the cheapest and most effective marketing methods available to libraries". "Exhibitions can have a positive effect both in terms of public relations and education provision" (Prendergast, 2003) and "in terms of raising the profile of collections" (Gifford, 2002). NLM has an active exhibitions program such as in-house exhibitions and outreach exhibitions. The exhibitions were based on materials already in the collections and one theme was selected for each exhibition to attract visitors. NLM's rare collections and special collections are regularly displayed in exhibition cases and posters at the rare books and special collection display gallery located at the 10th floor of Menara PNM, while Malay manuscripts exhibition is located at the 11th floor of Menara PNM. NLM often invites students, researchers, and public users to visit the exhibitions. NLM also offers individual or group tours to teach and facilitate learning. Visitors are encouraged to ask questions and suggestions to fulfil their curiosity or research goals. Besides the in-house exhibitions, NLM is also planning outreach exhibitions throughout country in various organizations such as government agencies, private agencies, state public libraries, higher education institutions, schools and seminars. In 2015, 20 outreach exhibitions were held for rare books and personal collections and 20 outreach exhibitions were held for Malay manuscripts. In 2016, 10 outreach exhibitions for rare books and personal collections were held while 11 outreach

exhibitions were held for the Malay manuscripts collections. Perhaps the most successful exhibition of Malay manuscripts was the International Exhibition of Malay Manuscripts in 2014, mounted in conjunction of Visit Malaysia Year 2014. The exhibition successfully attracted 16,794 walk-in visitors and 54,748 visitors for online exhibition. The exhibition platform was a large traditional Terengganu vessel called the Pinis Gobel. The Pinis Gobel, a two-storey high structure covering an area of 30×100 square feet, was placed in the exhibition lobby of the National Library and is bound to captivate visitors. The exhibitions showcased Malay manuscripts on governance and leadership, law and order, navigation, religion, astronomy, warfare and weaponry, medicine, decorative art of illumination, literature (Hikayat and poetry and lifestyle).

Merchandise

Merchandise or souvenirs are the most important promotion tools in every single program organized by the NLM. "The provision of free merchandise such as postcards, bookmarks, and pens can be a useful tool for re-enforcing other promotional activities" (Brewerton, 2001; 2003). "If developed with a particular product in mind they can stir interest amongst new user groups by being informative and intriguing at the same time, as demonstrated by the use of specially designed beer mats to promote the presence of the National Brewing Library at Oxford Brookes University" (Brewerton, 2004). NLM collaborated with Malaysia Post to produce first day stamps and envelopes in conjunction with the Official Opening of the National Library Building on 16 December 1994. One of the first day stamp featured the Malay manuscript to represent an important part of Malay cultural wealth. The RM1.00 stamp is still available until now. NLM also produce and sell postcards featuring pictures of rare books. PNM published ten postcards with different pictures as the background. All the pictures were based from the rare books collections already in NLM collections. This RM10.00 postcard will act as a memorable souvenir to people and encourage users or visitors to read and study the rare books. Besides that, NLM also produce other merchandise and souvenirs such as note books, pens, bookmarks and mugs.

Seminars and Talks

Seminars and talks bring together library and rare books and special collections experts to discuss everything about rare books and special collections. Coote and Batchelor (1997) noted that "these methods should continue to be used. Talks on specific collections are perhaps one of the key selling points for special collections librarians who work with such collections constantly, and are knowledgeable of their contents", and Melrose (1999) highlights the "frequency in which local librarians are called upon to give talks about resources in their collections". "Talks can also be delivered to a wide variety of clientele, and not just core user groups" (as Sambrook and Donnelly (2006) have noted), and this can "widen the outreach potential of the library service as a whole, thus promoting an enhanced perception of that service to a wider audience" (Bengston, 2001). Seminars and talks specializing on rare books and special collections are among the important events in NLM. Every year NLM collaborates with local university experts, professors and lecturers, and also with Malaysian National Laureates to present research paper, rare books reviews and other issues related to the rare books and special collections to promote knowledge and the use of rare books and special collections. In 2016, NLM organized two (2) seminars and two (2) talks on Malay manuscripts collection. NLM also organized one (1) talk on personal collections and the speaker was Malaysian National Laureate Professor Dr. Muhammad Haji Salleh. He reviewed a rare book collection entitled "Sole of Malaya", since he was the author who translated the book into the Malay language with the title "*Nurani Tanah*

Melayu". The seminars and talks were so successful that attendances ranged from researchers to regular library users. The benefits of the seminars and talks are strengthening of ties among librarians, rare books and Malay manuscripts experts, government agencies as well as a generally heightened awareness among library users.

Publications

NLM produces a lot of publications related to the rare collections, personal collections and Malay manuscripts collection because it would be noteworthy to showcase materials from the NLM's rare books and special collections. Publications can come in all shapes and sizes, from professionally produced monographs to local newsletters printed in the library. "The former are often catalogues published alongside other outreach events such as exhibitions, or as a result of specific cataloguing projects" (Traister, 2003). NLM produces a lot of publications related to rare books, special collections and Malay manuscripts. The number of publications related to Malay manuscripts already published by the NLM are 12 books, 23 volumes of Philology Journals and 21 Malay Manuscripts Catalogues. The most popular Malay manuscripts books are *Kitab Tib: Ilmu perubatan Melayu* (Malay traditional medicine) and a Malay manuscript coffee table book. Three books and two special collections catalogues were also published for rare books and personal collections. In 1994, a Guest Scholar Program was introduced to study and transliterate a selected Malay manuscript, personal collections and rare collections by the notable scholar. Since that, eight important manuscripts and one personal collections has been studied, transliterated and published such as *Sumber Histografi di Alam Melayu* (John Bastin Personal Collection) and *Petua Membina Rumah* (Malay Manuscripts Collection). NLM also produced posters and fliers which were used to publicise upcoming events and exhibitions. Information repacking related to the history, culture and geography of Malaysia for form 3 students who are sitting for the Form 3 Assessment was also produced by the NLM. The resources of the information repacking came from various source and one of them being from rare books and special collections. These collections are the primary sources of Malaysian history, culture and geography and the library should expose the collection to secondary school students for their projects or assignments.

Web site/portals/social media

In making possible the rare books and special collections on screen, NLM has invested much effort in the planning, organizing and interpreting texts as well as scanning, mounting and choosing navigation tools. "Library websites have the potential to enhance services for users" (Abraham, 2001), "act as a first point of contact for new customers" (Brewerton, 2002) and act as a promotional tool in the process. "They can also be used to showcase research and resources" (Traister, 2003) and "generate new resources" (Jay and Webber, 2005). However, "to successfully achieve this goal library websites should be accessible, usable (i.e. easy to navigate) and easily searchable" (Ould and Burton, 2005). If these targets are achieved, the benefits of a library website will far outweigh the cost of development. NLM has already digitized 1,578 titles or 203,096 pages of Malay manuscripts, 1,844 titles or 371,236 pages of rare books and 2,626 titles or 572,765 personal collections. This digitized collection can be accessed through various online tools for free global access such as The Glorious Legacy of Malay Manuscripts portals at http://www.pnm.gov.my/manuskrip/melayu/03koleksi/302_hikayat.htm, National Library of Malaysia Digital Repository at http://myrepositori.pnm.gov.my/, and u-Pustaka portal (ubiquitous library) at http://www.u-library.gov.my/portal/web/guest/home. Increased access is one of the main factor why it so worthy to represent NLM's rare books and special collections on the internet. Digitized collection will not be fully utilized if the materials are not uploaded into a

portal or database. "The special collection website carries enterprise-wide implications for promoting awareness of all library services, including information about the library as an organization and community resource" (Wilson, p. 36). "With its existence as a website already established, part of the outreach and marketing project is completed" (Harrell, 2016). The site is out there in the cyber sphere where anyone with access to Google or other keyword searches, would find it. NLM also uses social media to promote rare books and special collections to a larger public. As Griffin and Taylor (2013) stated "social media profiles existed… to serve as outreach tools, to provide additional access points for reference transactions, and to provide additional access points to special collections materials in locations where new, potential users were already located". Social media is a user-friendly technology which allow users to interact with people who have similar interests. Functions like commenting, tagging, and sharing content make the communication between library and users easier and more casual. The advantages of social media in disseminating news and content fast both locally and internationally should be fully utilized by the library.

Recommendation

As an institutions that performs as guardian of intellectual heritage, NLM should take more advanced initiatives to reach larger target users. In order to make the collections widely accessible, online exhibits may be used as one of the medium to gain public awareness with efforts on digitizing the collections. The work done by the staff of NLM should be accorded. To further enhance the services, they should be given more related exposures. The staff should be given enough training because educated and skilled staff is the key to providing quality services. In order to promote the use of rare books and special collections among library users, tourists and the local community, it is vital to develop an excellent promotional strategy that can attract more users not only to look at the collections but also use the collection to add on their current knowledge, or even for other purposes.

Conclusions

Librarians should not be discouraged, but be very proactive in pursuing alternate avenues of resources to help manage their special collections. Librarians also should take an aggressive approach to seek external funding, to use their own expertise, to creatively generate staff resources so as to preserve and promote access to the collections. The efforts of the librarians to bring about awareness, promote and enhance access to this collection have been rewarded with an ever increasing request to use the collection for a multitude of research activities.

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COUNTRY REPORT OF NATIONAL LIBRARY OF MALAYSIA :
25th MEETING OF THE CONFERENCE OF DIRECTORS
OF NATIONAL LIBRARIES IN ASIA AND OCEANIA (CONSAL 2017)
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Relationship to Government

(a)   National Library of Malaysia

The National Library of Malaysia (NLM) is a MS ISO 9001: 2008 certified library and is under the umbrella of the Ministry of Tourism and Culture Malaysia. NLM was established under the National Library Act 1972 (Act 80) (including all amendments since 1 January 2006). Dato' Nafisah Ahmad is currently the Director General who is responsible to oversees the development of libraries, library profession and library education in Malaysia. The National Library Act relates to the executive power, roles of the Director General and the establishment of the NLM.

The Director General also has the responsibility to advise the Minister in all matters pertaining to libraries and library development in Malaysia. She is also responsible to answer questions related to libraries in the Parliamentary debate and discussions. Under the Deposit of Library Material Act 1986 (Act 331), all publishers in Malaysia are required to deposit five (5) copies of printed materials and two (2) copies of non-printed materials to NLM as the national intellectual heritage.

(b)   Malaysia Rural Libraries

The establishment of the rural libraries in Malaysia as a social and cultural hub for the community, vindicate NLM to rebranding the rural libraries into Community Knowledge Centre. The rebranding involved governance, administration, infrastructure and human resource. Four new rural libraries in different states in Malaysia were chosen as a pilot project bringing the total number of the rural libraries in Malaysia to 1,121 units. The four new rural libraries are well equipped with reading materials such as books, magazines, newspapers and facilities such as computers and internet connection. The libraries are also equipped with landscaping and recreational facilities to attract surrounding community to obtain knowledge and utilise the library facilities for study, business purposes or leisure. As of December 2016, NLM has managed 510 rural libraries whereas 611 rural libraries are managed by the respective state government. The government of Malaysian showed their commitment in enhancing the quality of life of the rural areas by allocating an operating budget of RM38.377 million (USD 8.6

million) for the 510 rural libraries to strenghten the library infrastructure and facilities. To date, the total cumulative library collection in the rural libraries is 11,076,412 copies.

(c)   State/Public/Municipal Libraries

The role of NLM in state public libraries is to channel and monitor development and operational budget. Whereas the Director General performed as a representer in the State Public Library Corporation Boards and responsible to give advice pertaining to their development. One of the functions of NLM is to ensure equal development of the infrastructure of public libraries in Malaysia. State/Public Libraries have work closely with NLM in the development of rural libraries in Malaysia. As of 31 December 2016, there were 336 State/Public/Municipal libraries.

(d)   Special Libraries

The role of NLM is to provide human resource and advisory services to government special libraries. The staff at these special libraries are seconded from NLM and they may be professional or non-professional depending on the requirements of these libraries. One of the function of the special library is to be a knowledge hub in their respective Departments or Ministries. Besides that, special libraries are also found in the private sectors such as banks, companies and non-govermental organizations (NGOs). Most special libraries are only open to their staff and members. As of 31 December 2016, there are 530 government special libraries and 423 private sector special libraries.

(e)   School Libraries

NLM does not have any executive power to monitor or plan the development of school libraries. School libraries or resource centres in the primary and secondary schools are under the administration of the Ministry of Education Malaysia. The government recently proposed that the Education Ministry and the National Library of Malaysia should work together on the role of libraries and resource centres in school. This is further enhanced through the Malaysia Education Blueprint 2013-2025. There is a resource center in every school and there are about 10,586 school libraries in Malaysia and it usually administered by a teacher librarian.

(f)   University Libraries

The University Libraries are under the Ministry of Education Malaysia and is governed by the Universities and Universities Colleges Act 1971. The public and private universities are administered by their respective universities and is headed by a Chief Librarian. There are 20 goverment public universities and 423 private universities. Collaboration between the university libraries and NLM is through PERPUN which is a forum of cooperation between all the Chief Librarians of University Libraries and NLM Director General. With effective from 2015, NLM Director General has been appointed as the chairman of PERPUN.

Facts and Figures

The number of libraries in Malaysia as of December 2016 stands at 14,007 comprising of all types of libraries. The **Table 1** below shows the type and number of libraries in Malaysia and **Table 2** shows NLM collection as at 31st December 2016:

Table 1: Type and number of libraries in Malaysia

NO.	TYPE OF LIBRARY	FIGURES
1.	National Library of Malaysia	1
2.	Community library	4
3.	Public/state/Municipal libraries	331
4.	Rural library	1,121
5.	Special library	950
6.	University library	516
7.	School library	10,586
	(a) Ministry of Education Malaysia	10,180
	(b) MARA Science College	52
	(c) Private School	354
8.	KEMAS Resources Centre and Medan Info Desa	498
	TOTAL	**14,007**

Source: National Library of Malaysia Statistics, 31st December 2016

Table 2: National Library Collection As 31st December

NO.	PARAMETER	FIGURES (2016)
(1) NLM Collection		**239, 437**
	(a) Deposit of Library Materials Act 1986	208,170
	(b) Purchase	22,448
	(c) Gift and Exchange	6,004
	(d) Digitized Materials (title)	2,815
(2) Visitors		**8,935,433**
	(a) Physical visitorship	398,769
	(b) Online visitorship	8, 536, 664
(3) Materials Loan		**492,623**
	(a) Physical loans	420, 737
	(b) Online loans	71, 886
(4) NLM Physical Membership		**19,960**
	(a) Children	4,321
	(b) Adult	15,639
(5) *U-Pustaka Membership		**59,547**
	(a) Children	3,593
	(b) Adult	55,864
(6) Library Staff		**484**
	(a) Professional	132
	(b) Support staff	352

* U-Pustaka = Ubiquitous Library

(a) Visitor to NLM and libraries in Malaysia

The number of physical visitor to NLM for the year 2016 stands at 398,769 visitors showing an increase of 6,323 (1.5%) visitors compared to the year 2015 where 392,446 visitors visited NLM. The increase in the number of physical visitors is a testimony that libraries are still relevant despite the advent of the internet. The number of online visitors for the year 2016 stands at 8,536,664.

(b)   International Visitors to NLM

For the year 2016, NLM received a total of **582** international visitors from fourty six (46) countries which include Africa, Algeria, Australia, Austria, Bangladesh, China, Georgia, Hungary, Indonesia, Iran, Kazakhstan, Morocco, Philippines, Republic Czech, Saudi Arabia, Sri Lanka, United States of America and others. Among the purpose of these visits are to establish networking, benchmarking, digitization of library resources and resource sharing through gift and exchange of publications.

(c) Membership in NLM and Libraries in Malaysia

A total of 19,960 new members signed up for the year 2016 making the total NLM cumulative membership to 1,278,326 members comprising of the various races and age groups in Malaysia. In 2016, 323 foreigners from 46 countries registered as NLM members comprising of 255 members from 24 Asia Pacific countries, 29 from 10 European countries, 23 from 8 African countries and 16 from Brazil, Canada, Columbia and USA. In terms of membership from foreigners, India has the highest membership with 52 members, followed by Australia (16), China (50) and Korea (33). The total membership for all the libraries in Malaysia comprising of NLM, public libraries, rural libraries, special libraries, private sector libraries and academic libraries stands at 9.52 million (36.9%) out of a total population of 30.9 million people in Malaysia.

(d)   Lending, Interlibrary Loan and Bulk Loan

Effective 2015, the number of books that can be borrowed by users has increased from 3 to 6 books and the loan period has been extended from 3 to 4 weeks. For the bulk loan service, the number of books that can be loan by institution or library has been increased from 300 to 400 units for a period of 3 months. The total number of materials loan by NLM's users in 2016 were 492,623 units comprising of 420,737 units for physical loans and 71,886 for online loans via u-Pustaka. The physical loans include central loan 257,730, interlibrary loan 797 and bulk loan 160,709. 288,218 loans were from the adult collection whereas 132,519 loans were from the children's collection.

The most popular genre loaned by users is novel/fiction 151,470 (36.6%), followed by language and religion 59,254 (14.1%). The interlibrary Loan request can now be made online through the Union Catalogue of Malaysia Portal (http://www.kik.gov.my). For the convenience of library users, Book Drops are provided at the NLM's premise and community libraries.

(e) Reference Services

A total of 463,094 physical reference collections were refered by library users which include Malaysiana Reference (106,200), General Reference (82,228), Digital Resources (15,008) and Circulation Department (257,730) and a total of 71,886 online reference collections were refered by users using NLM Digital Databases.

General Overview of Recent Major Developments

(a) International Federation of Library Associations and Institutions (IFLA) World Library Information Congress (WLIC 2018)

The International Federation of Library Associations and Institutions (IFLA) has officially announced that Malaysia will be host the 84th IFLA World Library and Information Congress (WLIC) in 2018. The announcement was made by IFLA at the 82nd WLIC held in the Columbus, Ohio, United States of America. The IFLA WLIC 2018 will be held on 24th to 30th August 2018 at Kuala Lumpur Convention Centre (KLCC). With the theme "Transform Libraries, Transform Societies", Malaysia believes the conference will strengthen the country's professional leadership in promoting libraries and librarianship at national, regional and international levels.

The IFLA WLIC 2018 bid was led by the Librarians Association of Malaysia (PPM) and National Library of Malaysia. Effective end of 2015, Malaysia has appointed 19 PPM members from various background as National Committee. The chairman is Dato' Nafisah Ahmad, President Librarians' Association of Malaysia, who is also Director General National Library of Malaysia and Co-chair, Dato' Dr. Zaiton Osman, Consultant to the Librarians' Association of Malaysia. Madam Maimunah Kadir as Secretariat Project Director and Madam Chin Loy Jyoon as Secretariat Project Manager. Another 14 PPM members have been appointed as chairpersons of administrations, finance and sponsorship, hospitality, IT and local website, library boulevard, library visit, library schools, marketing, publications, satellite meetings, social events. volunteers and private universities/college libraries. The congress is expected to attract 3,000 to 4,000 delegates from more than 100 countries and generate RM4.4 million for the country.

(b) Ubiquitous Library (u-Pustaka) Portal (www.u-pustaka.gov.my)

In order to support fostering an engaging lifelong learning among Malaysians, NLM in collaboration with Malaysian Communications and Multimedia Commission (MCMC) and consortium members consisting of eight (8) libraries in Malaysia, government agencies and private institutions has established Ubiquitous Library or known as u-Pustaka. The key objectives of establishment u-Pustaka are making information accessible to all, building a cooperative library network system and creating, sharing and exchanging knowledge in a knowledge society. u-Pustaka provides free membership registration, borrowing books online, accessing digital contents, delivery of books by courier postal services, returning of books via book drop at any of the eight consortium libraries in Malaysia.

The key milestone for phase 2 of u-Pustaka (2014-2015) include widening and sharing of resources through coordination and collaboration; development of u-Pustaka mobile apps; shifting of u-Pustaka main system to Public Service Data Center (PSDA); Resource Description and Access (RDA), strengthening u-Pustaka management and governance; enriching digital content; increasing awareness and membership and strengthening the Subject Matter Experts group. To date, the cumulative u-Pustaka membership stands at 471,220 with 59,547 new members in 2016. 125,089 hits/page view and 838 books were loan out under u-Pustaka in 2016. Under the 11th Malaysia Rolling Plan (2016-2020), u-Pustaka has been further upgraded and will be rolled out to other public libraries in Malaysia in an effort to transform Malaysia into an inclusive knowledge society.

### (c)	National Library of Malaysia's Transformation Plan

Malaysia Public Service Transformation Framework that focused on five (5) strategic thrusts such as talent development, organizational development, citizen centric service delivery, inclusivity and ownership and enculturation of shared values of patriotism, ethos and integrity have been developed in order to ensure the high income, inclusive and sustainable nation. NLM has drawn up five (5) Strategic Thrusts and twelve (12) Strategic Initiatives in line with Public Service Transformation Framework.

Three of the NLM's Strategic Initiatives that is Access for All (NLM Digital Initiative), SmartNet (National Blue Ocean Strategy) and Community Knowledge Garden (Rebranding of Rural Library) were chosen by the Malaysian's Public Service Department as high impact initiatives. NLM Digital Initiative which is one of the Key Performance Indicator (KPI) for the Ministry of Tourism and Culture's Transformation Plan has targeted an increase of 10% in the usage of digital library services by Malaysians every year.

In 2016, NLM has intensified the promotion of the Digital Library 2.0 through outreach programmes and media socials. The goals of the promotion were to achieve 3 million users and one impact study. Promotions strategies include cooperation with government agencies, ministries, private agencies, public and special libraries. The outreach programmes involved on-line hands-on training sessions, workshops and exhibitions. NLM also promoted the outreach programme through local media, radio, television and media social such as Facebook and YouTube. NLM managed to exceed the target with a usage of 3,179,322 hits and 95,000 clicks, 580,250 views and 10,000 likes.

### (d)	National Library of Malaysia Stack Room

Under the 10th Malaysia Development Plan (2011 to 2015), NLM has received RM7.0 million to build stack room for efficient storage in order to meet increasing demands of library materials under the Deposit of Library Material Act 1986. The stack room was built in the NLM building with an area of 16,122 square feet. The project began on 29 September 2014 and was completed on 12 January 2016. The construction includes nine (9) levels of shelving systems in a 6 (six) level metal stack from level six (6) to level

eleven (11) of the National Library Tower block. The stack room equipped with 24 hour humidity control, security system (CCTV) and access card. It can accommodate 1,454 bookshelves and maximum of 300,000 volumes of library collection at any one time.

(e) Rebranding Malaysia Rural Libraries

The establishment of the rural libraries in Malaysia as a social and cultural hub for the community, vindicate NLM to rebranding the rural libraries into Community Knowledge Centres. The rebranding involved administration, governance, human resource and infrastructure aspects. Four new rural libraries in different states in Malaysia had been chosen as a pilot project bringing the total number of the rural libraries in Malaysia to 1,121 units. The four (4) new rural libraries are PD Kg. Panching, Kuantan, Pahang; PD Kg. Hulu Kuang, Chemor, Perak; PD. Kg. Bongkok, Kangar, Perlis and PD Kg. Sg. Kembong Hilir, Bangi, Selangor well equipped with reading materials such as books, magazines, newspapers and facilities such as computers and free WiFi. The libraries are also equipped with nice landscape as well as recreational facilities to attract and welcome communities to use the libraries for business, leisure or study purposes. Until December 2016, NLM has managed 510 rural libraries whereas 611 rural libraries are managed by the respective state governments. The government of Malaysian showed its commitment in enhancing the quality of life of the rural areas by allocating an operational budget of RM38.377 million (USD 8.6 million) for all the 510 rural libraries in order to strenghten the library infrastructure and facilities. To date, the total cumulative library collection in the rural libraries is 11,076,412 copies.

(f) Seminar on the Origin and Malay Intellectual Evidence

NLM hosted a seminar on the "Origin and Malay Intellectual Evidence" with the theme "Highlight the Nation History, Shaping Golden Heritage" from 7 to 8 November 2016. 10 papers were presented by experts on Malay Manuscripts from various backgrounds such as academician, archaeologist, historian, linguistics, philologist and scientist. More than 200 participants from various agencies and institutions participated in the seminar.

(g) National Library of Malaysia@50th

National Library of Malaysia was established in 1966 and celebrated the NLM 50th anniversary in 2016. As part of the celebration, NLM organised several programmes and activities such as PNMRun@50th, NLM Corporate Song (new version), 50th Anniversary exhibition and the opening ceremony of NLM 50th. NLM also produced promotional items such as stamps and mugs as remembrance.

New Developments in Building and Managing Collections

(a) NLM'S Collection

The total library collection of NLM as of 31 December 2016 stands at 5,104,270 units of library materials of which 236,622 units were acquired in 2016. The collection acquired in 2016 includes printed and non-printed materials, digital materials and manuscripts through purchase (22,448 units), Deposit of Library Materials Act 1986 (208,170 units) and gift and exchange (6,004 units). Two copies of the printed materials and one copy of the non-printed materials acquired through the Deposit of Library Materials Act 1986 are placed in the NLM's Reference Department for library user's reference.

(b) Writer's Fund

The Malaysian government provides incentive for the book industry and local writers by allocating Ringgit Malaysia RM987,311.70 in 2016 to purchase 101 titles or 37,021 copies of books direct from local writers. The total books purchased through this grant between the year 2007 to 2016 were 1,541 titles or 1,017,982 copies while the total cost of the government incentive involved RM21,348,064.00. Books purchased from this fund are selected from writers who deposit their books with NLM under the Deposit of Library Material Act 1986. To date, 1,541 writers have benefited from this government incentive. The books purchased from the writers were sent to all the rural libraries in Malaysia as part of their collection to be used by the local communities.

(c) Malay Manuscripts

NLM is the National Centre for Malay Manuscripts for the acquisition, documentation and use of the Malay manuscripts as stipulated in the National Library Act 1972 (Act 80). NLM has the largest collection of 4,884 copies of Malay manuscripts in the world. In 2016, 222 researchers refer to 613 titles of Malay manuscripts in the original format and 139 titles in microfilm format. To date, NLM has digitised 30% of the Malay manuscripts in its collection and some of the digitised collection (1st 10 pages) can be viewed via the NLM Online Public Access Catalogue http://webopac.pnm.gov.my ((OPAC Tag 856).

(d) NLM Publications

NLM published five **(5)** publications in 2016 namely Guidelines to Build Malay House from Ethnic Anthropology Perspectives (new edition), ETS Poetry Book, NLM Journal *Sekitar Perpustakaan* Vol 44/2016, Malay Philology Journal 21 and *Warkah Manuskrip Melayu*. These publications are distributed to all the libraries in Malaysia. NLM also published six (6) online NLM Bulletins, entitled *Pustaka: Buletin PNM*, *Sekitar Perpustakaan and Sari Pustaka* (vol. 1-4/2016) which are all full text accessible via PNM portal.

(e) Audio Book Collection

Audio book is the continuous project by NLM in collaboration with Malaysian Association for the Blind (MAB) and local publishers for visually impaired users. This project was carried out in stages where 10 (ten) selected titles chosen by MAB were produced in 2016. Selected talented librarians from NLM voluntarily contributed their voice in this project. To date, NLM has published 70 audio books.

(f) Personal Collection/Rare Collection

147 books from Professor Emiretus Dr. Mohamad bin Hj. Salleh, a Malaysian National Laureate were acquired as NLM's Personal Collection in 2016. He is also one of the Malaysian popular authors who has won the Writers SEA award in 1997. His publications focused on poetry and literary criticism written in Malay and English languages.

New Developments in Providing Access to Collections

(a) NLM's Research and Development (R & D)

NLM conducted two (2) studies pertaining to library services and development in 2016 to further enhance the quality of library services and collection in Malaysia. NLM future directions and strategic plans were based on the findings of these studies. The two studies carried out in 2016 were A Study of the Effectiveness of Union Catalogue of Malaysia Services and An Impact Study of NLM Digital Library Services.

(b) Digitisation of Library Materials (www.pnm.gov.my)

The digitisation project carried out by NLM is an ongoing activity and priority is given to Malaysiana resources for fast and easy access as well as for the preservation of the national heritage. Among the collection that have been digitised include Rare Book Collection, Personal Collection, Malay Manuscripts, Newspaper Articles and in house publications (NLM's Annual Report, NLM's Bulletin *Sari Pustaka, Sekitar Perpustakaan*). Collection from the Institute Research of History and Patriotism Malaysia was also digitised to instill greater patriotism among the younger generation. In 2016, 2,815 titles or 135,589 pages were digitised bringing the cumulative total of library materials digitised at 1,626,089 pages. The digitised collection is then uploaded in the Digital Repository system using an open source software, D'Space.

(c) NLM Electronic Resources Portal (www.u-library.gov.my)

This is a single sign on portal to all the electronic resources and provided free to all Malaysians. This portal can be accessed through personal computer, tablet computer, laptop, smart phone and other electronic gadgets by registering as an online member through www.u-library.gov.my or NLM portal http://www.pnm.gov.my. The services provided in this portal include borrowing and downloading of e-books and e-magazines. Until December 2016, 51,535 people have registered as online members and 3,176,538

people have visited the portal. NLM subscribed to 26 online commercial databases and five million e-books. Among the online databases available in this portal include Library Press Display,BLIS, iG Library, Emerald Management Xtra, Encyclopedia Britiannica Online Library Edition, World E-Book Library, Overdrive e-book, e-Brary, EBSCO Host and Zinio e- magazine.

(d) Union Catalogue of Malaysia (www.kik.pnm.my)

The Union Catalogue of Malaysia is a collaborative project among 128 libraries in Malaysia. It is a web based database consisting of 6,179,355 million bibliographic records from 128 libraries and is being updated regularly. The Union Catalogue of Malaysia is used for copy cataloguing and interlibrary loan by consortium members. 745,387 hits were recorded in 2016.

(e) Lending, Interlibrary Loan and Bulk Loan

The total number of materials on loan by users in 2016 were 420,737 units. This includes Central Library Loan (257,730), Interlibrary Loan (797), Bulk Loan (160,709) and u-Pustaka Services Loan (838). This shows an increase of 16.2% compared to 2015. The most popular genre on loan by users is novel/fiction (57.6%), followed by language and religion. The Interlibrary Loan request can now be made online through the National Union Catalogue (NUC) Portal (http://kik.gov.my). For the convenience of library users, Book Drop are provided at the NLM's premise and community libraries.

(f) NLM's Social Media

NLM uses social media such as Facebook and Twitter to share and spread the awareness of the NLM programme and activities besides promoting NLM physical and online collections. Until 16 April 2017, NLM's official Facebook has 22,155 likes and Twitter has 1,552 followers.

(g) Media and Information Literacy Programme

Media and information literacy programme was started in 2010 as an outreach programme: Workshop on Information Searching and Packaging. In 2011, NLM developed three (3) types of Module on Media and Information Literacy that is Basic, Intermediate and Advanced levels. The modules are now used by NLM to conduct its Media and Information Literacy programmes to the various communities in Malaysia. In 2016, 62 programmes were conducted with 5,842 participations comprising education officers, teachers, students, civil servants, library staff and library users. NLM also conducted 14 training of trainers (ToT) sessions for teachers, lecturers and school librarians. Until December 2016, 224 information literacy programmes comprising 16,973 participants were conducted.

(h) Community Libraries

NLM added its latest community library in the Mini Urban Transformation Centre (UTC) Keramat Mall, Kuala Lumpur in December 2014 making the total number of community library under NLM to four libraries. The other three community libraries are in Makhota Cheras AEON Shopping Mall and Setiawangsa AEON Shopping Mall which was opened in 2012 and Bukit Damansara Residential Area in 2014. All these community libraries are located in Kuala Lumpur and are corporate social responsiblity projects where the library building and shoplots in shopping mall are provided by the private sectors but the library staff and collection are provided by NLM. The cumulative membership of all the community libraries stands at 19,574, cumulative users 446,154 and cumulative loans 293,298. Among the services provided include loans, free Internet access and reference materials.

New Developments in Other Services

(a) National Blue Ocean Strategy (NBOS)

As Malaysia continues its ambitious journey towards becoming a developed nation by 2020, the government has adopted Blue Ocean Strategy to deliver programmes and services to the public that are high-impact, low cost and rapidly executed. Through National Blue Ocean Strategy, ministries and government agencies are collaborating to formulate and execute creative blue ocean strategy initiatives that are able to transform the country to greater heights. In this context, NLM has adopted the blue ocean strategy's Eliminate-Reduce-Raise-Create (ERRC) framework in order to serve the citizens better. NLM has collaborated with several agencies such as Council of Trust for the Bumiputera (MARA), Perbadanan Kota Buku universities and Yayasan Karyawan to provide high impact library services to the people.

(b) NLM Human Resource Training

A total of 472 (98%) NLM staff attended courses, workshops, seminar and conferences throughout the year 2016. 15 students from Institutions of Higher Learning underwent practical training and attachment in NLM. 30 courses/seminar/workshops and lectures were conducted in 2016 by NLM which comprises 18 generic courses and 12 functional courses. Besides that, NLM also send 209 staff to attend 41 courses conducted by other institutions in Malaysia. NLM also sent 8 staff to attend five (5) conferences and seminar overseas in order to enhance their competences. Among the conferences attended by NLM's staff include Training Workshop: Bibliographic Cataloguing Rules Using RDA Standards in Thailand, ASEAN Digital Library Pilot Site in Singapore, IFLA WLIC 2016 in USA and 2nd Convening of INELI-ASEAN in Singapore.

Collaboration With Other Libraries, Archives and Museums in Your Country

(a) National Reading Programme

Throughout 2016, NLM as the National Reading Promotion Secretariat under the National Blue Ocean Strategy (NBOS) collaborated with various government agencies, government link companies (GLC), private company and nongovernmental organizations (NGOs) to carry out its reading promotion programmes throughout the country in order to inculcate reading habits among Malaysians. NLM also have smart partnerships with relevant organizations such as *You Are Still In My Heart* Programme with the Prisons Department, *1Malaysia Reading Camp* with the Ministry of Education, *Lets Read Together for 10 Minutes"* held in conjunction with World Book and Copyright Day with all libraries in Malaysia.

NLM in collaboration with The Council of Directors for Public Libraries of Malaysia (MAPAN) conducted #Malaysia Reading Quran programme *(#MalaysiaNgaji).* This programme involved Muslims reciting Quran for one hour concurrently all over Malaysia. The objective of the programme was to experience the pleasure of reading Quran in a simple and relaxed manner. The programme involved all libraries in Malaysia and interested parties such as government departments, statutory bodies, companies, non-government organisations, mosques and members of the public and schools. In addition, NLM also conducted reading promotion activities, book launch, information and media literacy workshops in order to inculcate reading habits among the communities with cooperation from the state public libraries, school libraries, rural libraries and university libraries. A total of 4,263,919 people comprising of senior citizens, adults, teenagers and children participated in the reading promotion programmes held throughout the year.

(b) Librarians Association of Malaysia

Librarians Association of Malaysia or better known as Persatuan Pustakawan Malaysia (PPM) is the professional body for the library and information services in Malaysia. PPM is the national voice representing librarians from all types of libraries in Malaysia and have greatly contributed to the status and development of libraries in Malaysia. In order to further enhance the importance of professional training and education for librarians, PPM conducts numerous short courses, talks and seminar throughout the year. PPM and NLM cooperate and collaborate in organising courses and among the collaborations are Librarian Intellectual Talk, Training of Trainer (ToT) Information Literacy Workshop and Certificate Program for Library Assistants. Throughout 2016, PPM also organised numerous conference packages including to attend the 82nd IFLA General Conference and Assembly, IFLA World Library and Information Congress in Ohio, Columbus, United States of America from 12-21 August 2016 and the Asia Pacific Regional Council Meeting (OCLC), Japan, 1 - 2 December 2016.

(c) Collaboration between University Libraries and National Library of Malaysia (PERPUN)

NLM also embarks on resource sharing through collaboration with the university libraries. The most prominent consortium is the Conference of University Libraries and National Library of Malaysia (PERPUN). PERPUN is a forum of cooperation among the Chief Librarians of public universities and government-linked universities and the Director-General, NLM. Many collaborative projects among NLM and the academic libraries have been carried out which include Malaysian University Libraries and National Library Network (MyUniNET). MyUninet is the official name for PERPUN Portal and a gateway to online information resources for the universities in Malaysia and is accessible via http://perpun.upm.edu.my/. The portal provides access to Malaysian Theses Online (MyTo) and Malaysian Union List of Serials (MyULIS) databases. Besides that, the Malaysian Information System LibRarians (MySyL) and Malaysian Online E-Resources Consortium (MOLEC) are responsible for the development of content in MyUniNet Portal. NLM's portal http://www.pnm.gov.my/ is linked to PERPUN's Portal http://perpun.upm.edu.my/ as a reference source to get information and materials through ILL services.

(d) United Nations: Sustainable Development Goals Workshop

NLM cooperated with public libraries in Malaysia to conduct the workshop on UN Sustainable Development Goals (SDG). The objectives of the workshop were to strengthen the ability of the libraries in Malaysia to advocate for equitable access to information and to propose the initiatives in order to achieve the 17 pillars Sustainable Development Goals 2030. 22 libraries and 39 librarians were involved in the workshop. 235 programmes have been drafted as potential programmes for the library sector to support SDG.

(e) NLM Exhibitions

NLM organised 36 exhibitions in 2016. The exhibitions held were related to NLM services, Malay Manuscripts, Malaysian Heritage and Prominent Leaders. The exhibitions were conducted in-house and also at various locations including government agencies, libraries, mosque, schools and universities.

International Collaboration

(a) Collaboration with Foreign Embassies in Malaysia

NLM has established cooperation with several foreign embassies in Malaysia such as Embassy of Hungary, Embassy of the Islamic Republic of Iran, Embassy of the Republic of Kazakhstan and Embassy of the United States of America. The cooperation involved book donations, exhibitions, showcase, literary and cultural day programmes. This programmes will continue to foster closer cooperation in resource sharing. In 2016, NLM received a total of 669 materials that consists of 140 books, 65 compact disc, 240

postcards and 224 photo posters from the Kazakhstan Embassy in Malaysia. Most of the materials received are in English with a few in the Malay and Kazakhstan languages and have been documented to be used as reference materials. The official handing over of Kazakhstan collection to NLM was held on 29 December 2016 at NLM.

(b)   CONSAL XVII Conference 2016

Madam Maizan Ismail, Deputy Director General National Library of Malaysia attended the 18th Congress of Southeast Asian Librarians held at Yangon, Myanmar from 28 to 29 July 2016.

(c)   Conference of Directors of National Libraries (CDNL) 2016

Madam Nafisah Ahmad, Director General of NLM attended the Conference of Directors of National Libraries (CDNL) on 16 August 2016 held at Columbus, Ohio, United States of America.

(d)   Conference of Directors of National Libraries in Asia Oceania (CDNLAO) 2016

Madam Nafisah Ahmad, Director General NLM and Madam Chin Loy Jyoon, Deputy Director, Strategic and International Relations Division attended the 24th Meeting of Conference of Directors of National Libraries in Asia and Oceania (CDNLAO) from 8 to 11 March 2016 at the National Library of New Zealand, Wellington, New Zealand.

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PANDUAN PENULISAN SEKITAR PERPUSTAKAAN
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Sekitar Perpustakaan adalah sebuah jurnal yang diterbitkan dua kali setahun dan tujuan utamanya ialah untuk memenuhi keperluan profesionalisme Pustakawan dan menggalakkan pertukaran pendapat dan pengalaman.

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