Braving rapids, winding timber-tracks: towards equitable access to information for libraries in Sarawak

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Abstract

How do you "wire" a population of 2.07 million, comprising of 28 ethnic groups, living in pockets of settlements sprawled over a land mass of 124,450 km2? How can you make equitable access to information, where the main means of transportation is by river, and in some parts, with rationed electricity supply? How do you ensure these people are not "information marginalized"?

Sarawak, the biggest state in Malaysia, historically known as Land of the Headhunters, vastly geographically challenged, and now known as one of the world's few biodiversity hotspots, embarked on holistic strategies to bring the world of information to her people, across the state.

Focusing strongly on collaborative actions, Sarawak State Library strategise action plans to provide ICT infrastructure to all of the 227 network of public libraries throughout the State, adopting library service delivery standards, providing human resource development programs for all staff from these libraries, introducing standard information literacy skills, upgrading physical maintenance of the library buildings, amongst others. These efforts are choreographed to ensure sustainability of library services, as well as putting the libraries in the fore as partners in developing Sarawak's knowledge-based society, as well as inclusion efforts for the population challenged by geographical difficulties and distances.

This paper aims to share these plans, the collaborative efforts, innovations and the challenges encountered.

Introduction

Sarawak, the largest state in Malaysia, is 37.5% of the land of Malaysia by having land area of 124,450 km², and a population of over two million. Sarawak also contains large tracts of tropical rain forest, home to a plethora of plant and animal species. Sarawak is currently divided into eleven Administrative Divisions, and has 249 public libraries.

Initiatives to network libraries in Sarawak is based on the direction set in *Sarawak State Library Ordinance, 1999, Part II, Section 3(e)*
"To maintain and manage an efficient and effective information transmission and dissemination network, including the provision of electronic network system, and to establish an information technology system with linkages to other libraries or information resources centres, within Malaysia or abroad;".

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Library Development Initiatives

A. Static Libraries

Library development in this context is to enhance libraries with Information and Communications Technology (ICT) through collaboration with government and non-government agencies. Universal Service Provision (USP)

Project is one of the collaborations that have been established in Sarawak to equip libraries with ICT facilities.

USP projects were initiated by the Ministry of Energy, Water and Communication (MEWC) Malaysia as part of the National ICT Action Plans to bridge the digital divide between rural and urban population in the country.

The establishment of USP Project was based on *Communication and Multimedia Act 1998 (Act 588) Section 202(1)* which described *"…to determine a system to promote the widespread availability and usage of network services and/or applications services throughout Malaysia by encouraging the installation of network facilities and the provision for network services and/or applications services in underserved areas or for underserved groups within the community"*.

Each USP library is equipped with 2 units of computers, scanner, printer, tables and chairs, and productivity tools software.

Photograph by Wan Mazli

Under the USP project, each library is equipped with personal computers, printer, stand fan, scanner, digital camera, tables and chair, solar power system and generator set (in the absence of electricity) and Internet connection via satellite Very Small Aperture Terminal (VSAT) or Asymmetric Digital Subscriber Line (ADSL).

Solar technology system and VSAT respectively, to support energy and communication…

As of 2006, USP projects have been successfully implemented in 104 public libraries throughout the state. By 3rd Quarter of 2007, 213 public libraries will be connected to the internet.

Further enhancement is made to this project by upgrading the USPs into Community Service and Knowledge Centers (CSKC) at 35 selected public libraries, where trained staff are provided to carry out ICT and information literacy programs to ensure community's involvement and continuous usage of facilities. The staff and the community will also need to contribute to content development by developing websites of their respective libraries. Training, namely, on website and local content development will be provided to the staff and local community.

Through these projects, trainings were provided to the respective representatives from each libraries and community. Since the implementation of USP project in 2003, 208 library staff and representatives from the community have been trained on handling of USP programme and equipments. The training programmes provided are basic handling of computer and other peripherals, conducting activities for the community, productivity tools (word processing, spreadsheet etc), problem reporting, information searching skills and online application such as e-mail and online forms.

Members of the community are being given training and ICT literacy classes.

Mobile Libraries

Buses are also being used to transport library services and ICT, to areas where there are no such services yet. The Multimedia Mobile Library which was in operation since 2002, was in collaboration with the National Library. As of 2007, there vare two of such buses, and one more unit will be

Photograph by Wan Mazli

available by end of 2007. These buses not only go to schools but also to communities during Neigbourhood Programs organized by the local authorities.

ICT classes conducted in the bus.

B. Next Phase (Future)

The next level of mobile library service is to expand the service to the communities living along the rivers in Sarawak. The Sarawak State Library has proposed the Riverine Mobile Library as part of National Bridging Digital Divide Agenda. This mobile service is proposed to have the wireless broadband connection to the Internet.

C. Communication

For the delivery of the Internet connectivity to all public libraries under these projects, the communication technologies used are VSAT through Malaysian MEASAT (Malaysia East Asia Satellite) satellite system, ADSL, subscribing to

3G (Third Generation Cellular System) or GPRS (General Packet Radio Service) wireless network services from local communication service provider. In the absence of broadband services, dial-up connectivity are still being used to cater for online information needs at certain libraries which do not have broadband coverage.

D. Energy

Alternative sources of energy are garnered for use in libraries that do not have electricity supply. Experimentations in the use of generators, which are not sustainably stable, as it depends on the availability of diesel fuel, which often times the price of transporting them upriver or to the interiors is more than the price of the fuel itself.
Solar panels are also being used, at least for electricity to run the computers and the indoor units that need to be on all the times for satellite communications.
And there are also hybrids of diesel and solar powered generator sets being used.

Impact

1. Sarawak Usage

Statistics gathered from the Digital Divide Data Center in Ministry of Energy, Water and Communication Malaysia (MEWC) as of Mei 2007, in the nation, Sarawak tops the usage of USPs with 193,551 log-ins.

Overall Usage By State For Perpustakaan Desa
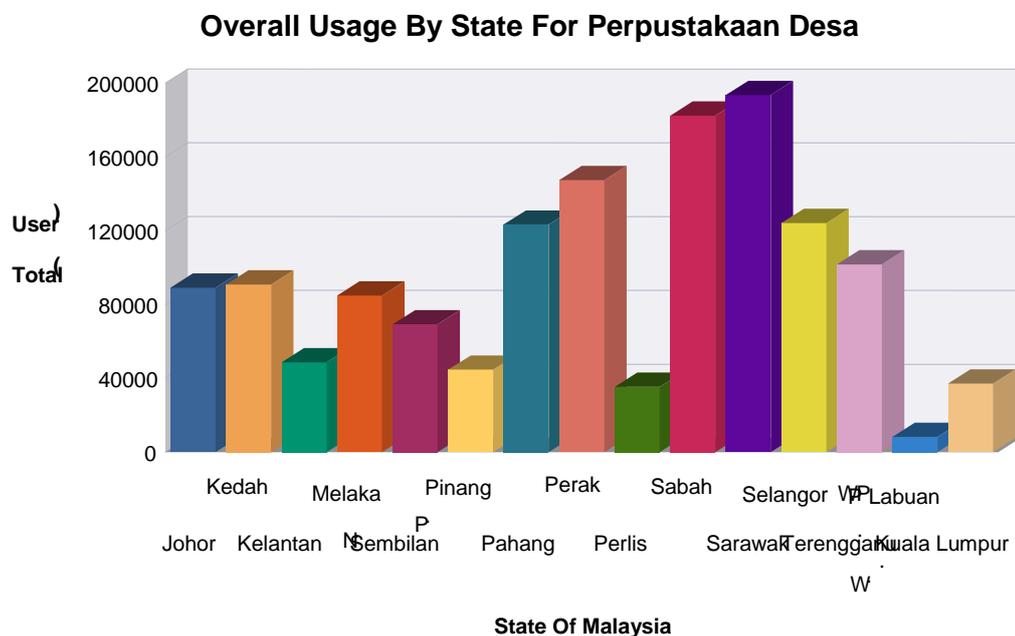
Performance Monitoring is done centraly at Digital Divide Data Center in MEWC Headquarters. Library staff can report online any hardware and software problems for MEWC to take action on. This center also monitors usage of internet connectivity and activties.
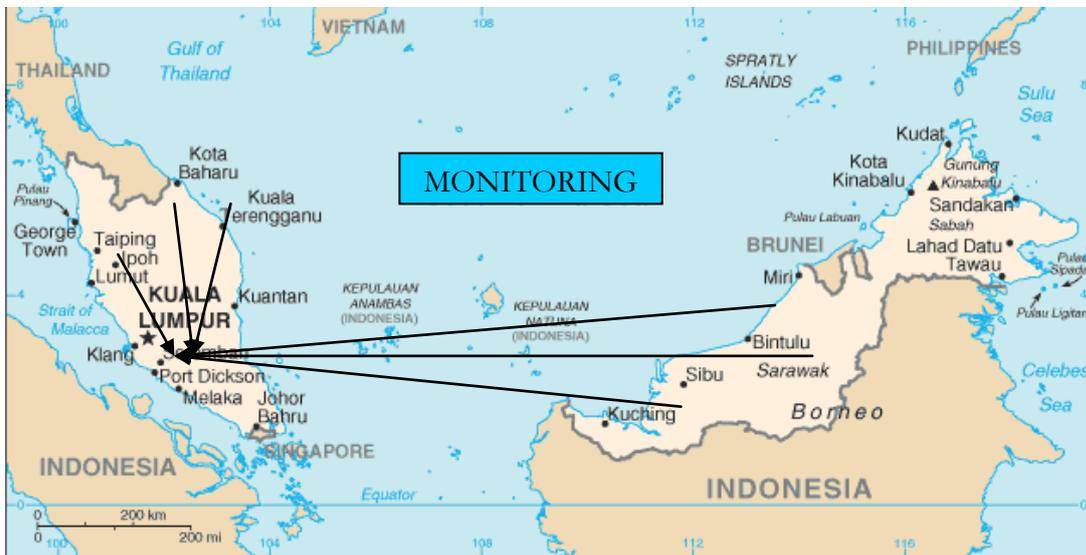
2. Government and Private Electronic Initiatives (e-initiatives)

Sarawak aggressively support action plans that will increase ICT literacy amongst the communities due the drastic development of online applications initiated by government and the private sector in delivering their services to the public.

These e-initiatives namely, Online University Enrolment, Online Bill Payment, e-Recruitment, e-banking, amongst others, warrants ICT infrastructure and know-how for societal inclusion. The geographical challenges of Sarawak necessitate the use of ICT and the relevant communication technologies to quantum leap into the development stream. If the largely-scattered communities have to wait for physical infrastructure such as roads and bridges to be implemented, the community will fall out from the streams of development.

Challenges

- The total value of this project since the first implementation in 2003 until 2007 is more than Ringgit Malaysia 57 million (USD 16mil). Return of investment of this project has to be properly calculated.
- The outreach programs to the communities, staff training, and community involvement are continuous initiatives that we are conducting in order to ensure that the budget spent for this project has value and benefitted the community. State Library has developed close contact and rapport with the local authorities and the communities, explaining on the benefits of the project, for their families and communities as a whole.
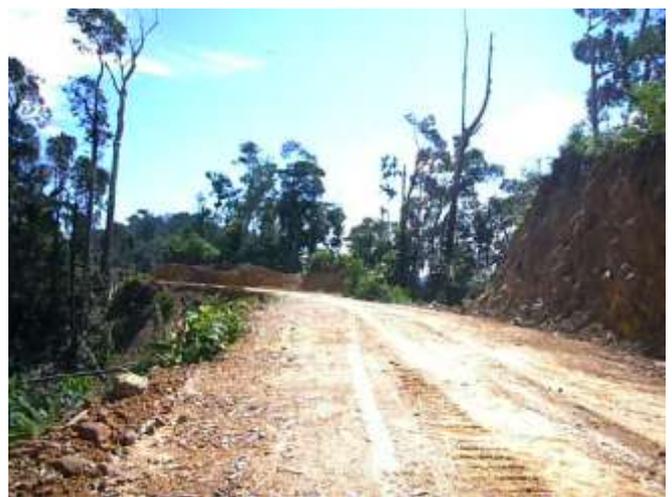
Mode of transportation to rural libraries in Sarawak's interiors.

- Geographical challenges are unavoidable and one must encounter when implementing projects and delivering services in Sarawak.
- Main means of transport to the interiors are by river transportation, timber tracks and small planes.
- Major ICT related problems at the libraries will take sometimes to be solved due to the distance and with no good road network infrastructure.
- 28 ethnic groups speaking different languages sometimes do affect service delivery, especially contents on the web site/ information literacy to these people has to be unique to their languages.
- Monitoring USP project is tough task if done physically. But, MEWC Malaysia has set up Digital Divide Data Center to check on statistical usage and activities performed in each library, online.

The Way Forward

The sustainability aspects have been taken into account to ensure these projects has long term value to the community. The 5 years maintenance for USP project will be under MEWC Malaysia. But, to ensure the continuous use of libraries under USP projects, Sarawak State Library actively conduct activities at USP libraries to inculcate vigorous use of USP facilities to the community. Continuous development on local content will be supporting the sustainability of this project. The fast development on multiple formats of information provided through the internet attracted the users to use the library facilities. The communication broadband service is crucial for libraries to deliver better service to the community.

Conclusion

For Sarawak to be a digital state, four main thrusts will be given emphasis, and these are **connectivity, accessibility, education and content**. These thrusts will bring Sarawak and her people into the competitive global realm.

Photograph by Wan Mazli

Future techno-savvies…

References

Communication and Multimedia Act, 1998. Act 588. *Laws of Malaysia*. Kuala Lumpur: Percetakan National.

Sarawak State Library Ordinance, 1999. *Laws of Sarawak*. Kuching: Percetakan National.