

Open Educational Resources in Malaysia: Current Practices, Challenges, and Future Prospects

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Introduction

Malaysia, consisting of the Peninsula Malaysia and two provinces on the island of Borneo viz. Sabah and Sarawak, has a population of about 30 million. It is a multi-ethnic, multi religious and multi-cultural society with Malays, Chinese, Indians and other indigenous groups such as the Kadazans in Sabah and the Ibans in Sarawak. Malaysia obtained her independence from the British in 1957 and thereupon established a constitutional monarchy with a political system based on the UK's parliamentary democracy. Its development since independence, 51 years ago, has been remarkable. Despite tensions, not uncommon to many plural societies, politically it is stable, economically quite robust and is moving gradually from a middle to high income nation. Table 1 illustrates Malaysia human development as measured by HDI where it is ranked at 64 out of 187 countries.¹

Table 1: Malaysia's HDI indicators

Life Expectancy at birth	Expected years of schooling	Mean years of schooling	Public expenditure on education [% GDP]	GNI per capita [2005 PPP\$]	HDI value
74.5	12.6	9.5	5.9 (2011)	13,676	0.769

The Malaysian education system, inherited from the British, had since Independence, been used as an important strategy in both nation building and its socio-economic development. It is expected to fulfill the manpower demands of the economy, provide equality of educational opportunity for all and promote national unity in a plural society. The system features a non-compulsory kindergarten education [which may soon be made mandatory] followed by six years of compulsory primary and five

¹ Accessed from <http://hdr.undp.org/sites/default/files/Country-Profiles/MYS.pdf> on 28-07-14

years of optional secondary education. Schools in the primary education system are divided into two categories: national primary schools, which teach in Malay [the national language], and vernacular schools, which teach in Chinese or Tamil. Secondary education stretches for five years. In the final year of secondary education, students sit for the national Malaysian Certificate of Education examination. A further two years of study prepares students for the Malaysian Higher School Certificate Examination. There are also a number of alternatives that are becoming available besides the High School Certificate as entry points to further education. On successful completion of the Higher School Certificate Examination, young people qualify to enter Universities.

The education policies and in particular the higher education policies are shaped by the historical and political landscape of the country. Particular mention of one such policy which highly influenced equity and access to higher education is the New Economic Policy designed to create a more equitable society by the eradication of poverty and restructuring the society by eliminating the identification of race with economic function.

Higher Education

Malaysian HEIs are largely divided into universities, university colleges, foreign branch campuses, colleges, polytechnics and community colleges. These fall within the purview of the Ministry of Education (MoE). In parallel, the Ministry of Human Resources, promotes the development of vocational education both at school and post-secondary levels. Through aggressive policy interventions, including encouraging private participation, Malaysia has been increasing its Gross Enrollment Ratios in higher education at phenomenal speeds. Table 2. traces this growth between 1991 and 2008.

Table 2. GER and actual enrolments in Malaysian Higher Education²

	1980	1998/99	2004	2007/8	2007/1988 as %
GER		23	31	32	
Enrolment	57,650	443,000	731,077	748,797	1,299

To accommodate this phenomenal growth in participation the numbers and types of higher education institutions have grown in a phenomenal rate. Investments both through the public purse as well private

² Asian Development Bank [2012]: Counting the Cost: Financing Asian higher education for inclusive growth. Mandaluyong City, Philippines

enterprise has seen HE numbers increase from just one institution at the time of independence [The University of Malaya] to about 606 by 2007 [Table 3].

Table 3. Growth in the types and numbers of HEI in Malaysia³

Types	1967	1997	2007
Public Universities	1	10	20
Private Universities and University-Colleges	0	0	33
Foreign Branch Campuses	0	0	4
Private Colleges and HE institutions	2	690	488
Polytechnics	0	8	24
Community Colleges	0	0	37
Students	4560	550 000	873 238
Postgraduates	398	na	45 888

Massification of higher education has not been without its consequences in Malaysia. Of the many downsides the most critical is the quality of the academic staff as teachers and the quality of instruction. Access becomes meaningful only when the quality of instruction is high. A constant commentary from both the public as well as policy makers, in the country, is about the irrelevance of curriculum, the poor quality of instruction, poor levels of English language competencies and a paucity of professionalism in the profession. Among the efforts to bring about improvement as envisaged by the Malaysian Education Blueprint 2013-2025 is the greater use of ICTs.⁴ Malaysia's ICT infrastructure is well placed to support this strategy.

³ Fernandez-Chung [2011] Access and equity in Higher Education in Malaysia. [Unpublished]

⁴ Malaysia's Education Blueprint 2013-2025 accessed on 29-07-14 from <http://www.moe.gov.my/userfiles/file/PPP/Preliminary-Blueprint-Eng.pdf>

ICT in Higher Education

Malaysia's ICT infrastructure is second to none in the region, though broadband access in rural parts of the country is somewhat poor. The use of ICT in higher education is mapped and aligned to two other developments.

Malaysia
Population: 29,628, 392 [est. 2013]
Telephones [Fixed]: 4,589,000
Telephones [Cellular]: 41,325,000
Household Computer Ownership: 1.9 mil [2009]
Internet Hosts: 422,470
Internet Users: 15, 355,000
Literacy rates: 93.10%
DSource: http://www.theodora.com/wfbcurrent/malaysia/malaysia_international_rankings_2014.html

The first⁵ is a clear Roadmap , designed and directed by the Ministry of Science and Technology which charted the nation's plan for the use of ICTs on all services provided by the GOM including education and the second the Education Development Plan 2006-2010⁶ and a new version of it The Malaysian Education Blueprint 2013-2025 revision. While a large part of these plans focused on pre tertiary levels of education, the National Higher Education Strategic Plan: Beyond 2020 [Phase 2: 2011-2015]⁷, identified the use of ICTs [especially to promote e-learning], with the following focus:

- *Infrastructure: high-speed broadband for HEIs; establishment of a helpdesk unit/ support service or appointment of a coordinator to oversee provisions for e-Learning and ICT equipments.*

⁵ <http://www.mastic.gov.my/documents/10156/b1a4b4b8-4522-4f13-a3b2-bce204f8be9a>

⁶ http://www.parlimen.gov.my/news/eng-ucapan_rmk9.pdf

⁷ National Higher Education Strategic Plan: Beyond 2020 [Phase 2: 2011-2015] accessed from <http://www.mohe.gov.my/transformasi/fasa2/psptn2-eng.pdf> on 29-07-14

- *Organisational Structure: HEIs have the vision and mission to integrate e-Learning in teaching and learning; establish an e-Learning team; develop an e-Learning policy and set up an e-Learning unit and coordinate e-Learning activities in collaboration with the ICT Centre.*
- *Professional Development: Students and staff possess e-learning pedagogical knowledge and implements e-Learning; students and staff have mastered the skills in technology and information literacy; and students, staff and stakeholders in HEIs have adopted a positive attitude towards e-Learning.*
- *Curriculum and e-Content: The course curriculum is in a blended mode; 50% of the original e-Content can be developed; implementation of e-assessment activities, and the establishment of standards for e-Learning which can be adopted in all HEIs.*
- *Culture: Staff and students use e-Learning widely; HEIs spread and share the best practices in e-Learning and award recognition at the national level.*

Despite the very high levels of investments made by the Malaysian government on ICT there are still lingering concerns that the full potential of these high investment is not being realized in the nation's classrooms both at school and tertiary levels. Investments have gone into appliances [free lap tops for teachers, tablets for students, data projectors, networking and other computer peripherals]. Policy instruments have also been created to support the greater use of technologies including considerable effort in training teachers in the effective use of the technologies for pedagogical purposes. Studies in Malaysia ascribe any number of reasons for the underuse of technologies in the nation's classrooms. Access especially to fast broadband in Malaysia's rural heartland frustrates many and school budgets does not allow for the high cost of connection. Other reasons include a lack of creativity in the profession, an unreasonably oppressive demand from the MOE to the strict adherence to curriculum and prescribed texts, a lack of teacher and academic staff time, big classrooms and a limitation of skills. These impediments are not uncommon in most parts of the region.

The Legal Environment for OER

Malaysia is a signatory to all international conventions relating to the protection of intellectual properties. It is a member country of the WIPO. The Copyright Act of 1987 and subsequently amended in 2002 gives protection to literary works including lecture notes, artistic performances both live and

recorded, computer programmes and patents, designs, etc. including derivative works.⁸ The administration of copyright laws as well the education of the public on these matters is vested in The Intellectual Property Corporation of Malaysia.

Malaysia enforces its copyright laws with seriousness, especially so since the country is among the world's leading trading nations and does depend on and attracts substantial amounts of FDI. At the same time there is also recognition that there are instances where 'fair use' is legitimate to achieve a balance between the rights of IPR owner and users. Specifically the law states *that "Such use must be in the public interest and is compatible with fair practice and the provisions of any regulations (which to date have not been made), and no profit is derived or no admission fee is charged."* Khaw⁹ is of the opinion that *"...in so far as education is concerned, apart from the fair dealing provisions, there are provisions permitting the use of literary or artistic works for the purpose of illustrations used in teaching; recordings made in schools, universities or educational institutions of broadcasts meant for such bodies; provisions for use of work for the purpose of setting examination questions, and others."* The provisions available through the Commons licenses buttress Khaw's opinion well with regards to OER. Malaysia's Creative Commons affiliation was initiated and promoted by the Multimedia Development Corporation of Malaysia [MDeC]. MDeC is the government of Malaysia's agent to promote the country's digital economy in a variety of ways. MDeC has been an affiliate of Creative Commons since 2005. Creative Commons Malaysia has the following CC license provisions:

CC BY 2.5 Mal.	CC BY-NC 2.5 Mal	CC BY-NC-ND 2.5 Mal.	CC BY-NC-SA 2.5 Mal	CC BY-ND 2.5 Mal	CC BY-SA 2.5 Mal.
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OER Activities

There is yet no published document available, in the public domain, on the Malaysian Government's *policy on OER*. However a number of Universities both public and private have initiated activities around OER. Some like the not-for-profit Wawasan Open University have created policy instruments embedded within a Creative Commons license environment to support their OER activities, others including many of the public universities seem to operate in the absence of such a policy. In 2012 a study/survey was commissioned by the Ministry of Higher Education on OER activities in the publicly supported University sector. The survey/study looked at OER initiatives at twelve [public]Universities in the

⁸ Accessed on 28-07-14 from <http://www.myipo.gov.my/maklumat-korporat>

⁹ Khaw, L.T. [2004] Copyright Law in Malaysia: Does the Balance Hold? Journal of Comparative Malaysian Law. Accessed on 28-07-14 from <http://www.commonlii.org/my/journals/JMCL/2004/2.html>

country. Findings indicate that many of the universities are in the early stages of planning their activities in the OER domain; at least 5 are members of the OCWC. Except for one, among them, all others seem not to have contributed to any open courseware to the Consortium.¹⁰

Listed below are other initiatives in the OER domain in institutes or higher learning:

- *Wawasan Open University – OERASIA*: Hosted by the Institute of Research and Innovation at the Wawasan Open University [www.wou.edu.my] OER Asia is an Asian forum dedicated to sharing information, views, opinion, research studies and knowledge resources on OER. In addition, it also provides guidelines and toolkits on good practices related to OER in the Asian region. One of its greatest contributions to the public is the OER Training Toolkit accessible at <http://www.oerasia.org/oer-workshop>. The Institute hosts a biannual symposium on OER developments in Asia; the last was held in June 2014. The Institute also supports and undertakes research and development activities on OER. [www.oerasia.org]
- *OUM-OER* – hosted by the Institute of Quality, Research and Innovation, Open University of Malaysia, the purpose of OUM-OER is to share its learning resources with the public. [<http://oer.oum.edu.my/>]
- *University Technology Malaysia Open Courseware*: University is one of five Malaysian Universities which is a member of the global Open CourseWare Consortium . It also has the distinction of presenting a number of on line digital learning materials under a CC BY-NC-SA license. [<http://ocw.utm.my>]
- *IMU Webinar Learning Series*: The International Medical University's Department of E-Learning organized and ran about twelve webinars in 2012 on learning technologies under its IMU Webinar Learning Series 2012. Seminar speakers included a few global thinkers, thought leaders and advocates on the utilization and utilities of using intelligent technologies in the teaching and learning environment. The seminars have been presented to anybody interested and have been archived at <http://imuelearning.blogspot.com/p/imu-learning-webinar-series-2012.html>
- Champions of innovations and technology in a number of universities in the country have taken upon themselves to advocate and promote a variety of learning technologies amongst their colleagues. A number of them are freely available to access, but not necessarily licensed under

¹⁰ Accessed on 15-03-14 from

http://www.mohe.gov.my/portal/images/penerbitan/JPT/Pengurusan_Pembangunan_Akademik/Open_Educational_Resources_in_Malaysian_Higher_Learning_Institutions.pdf

any commons licenses while others are only accessible to account holders. Three that stand out among these are:

- GOALS [Global Open Access Learning System from the Universiti Sains Islam Malaysia. [<http://goals.usim.edu.my/moodle/index.php>]
- One Stop Learning from the Universiti Sains Malaysia. <http://onestoplearning.blogspot.com/>
- WEB 2.0 OER from the Universiti Kebangsaan Malaysia. <http://www.scoop.it/t/web-2-0-learning-teaching>
- The twelve public universities which have signaled an interest in the OER movement are tabulated below:

Table 4: Malaysian universities undertaking OER activities¹¹

INSTITUTION	URL
Universiti Technology Malaysia [oer@utm]	http://www.utm.my/
Universiti Kebangsaan Malaysia [oer@ukm]	http://www.ukm.my
Universiti Sains Malaysia [oer@usm]	http://www.usm.my
Universiti Putra Malaysia [oer@upm]	http://www.upm.my
Universiti Institute Technology Mara [oer@UiTM]	http://www.UiTM.my
International Islamic University of Malaysia [oer@iium]	http://www.iium.my
INSTITUTION	URL
Universiti Malaysia Sabah [oer@ums]	http://www.ums.my
Universiti Malaysia Sarawak [oer@unimas]	http://www.unimas.my

¹¹ Embi, M.E.[2013]: Open Educational Resources in Malaysian Universities. University Kebangsaan, Malaysia, Bangi, Malaysia.

Universiti Sains Islam Malaysia [oer@usim]	http://www.unimas.my
Wawasan Open University [oerasia-WOU]	www.wou.edu.my www.oerasia.org
Universiti Terbuka Malaysia	www.oum.edu.my

Besides the higher education institutions, at the pre tertiary levels, learning materials including e-books are being made available through a number of portals. While they are freely accessible they are not categorized as OER and are not licensed as such.

- *1Bestari Net*: A nationwide project by the Malaysian Ministry of Education and a YTL private enterprise that is accessible to parents, students and teachers with an ID. <https://www.yes.my/v3/1bestarinet.do>
- *Malaysian Grid for Learning*:- MyGfL is an e-learning initiatives at national level by MIMOS Berhad (a research center under the Ministry of Science, Technology and Innovation). It promotes and supports the lifelong learning agenda in Malaysia through the use of ICT to accelerate the development of the knowledge society. www.mygfl.net.my/
- *British Council On line Teaching Resources* : Presented by the British council this site contains a range of resources such as lesson plans, tips, articles for English language teachers. <http://www.britishcouncil.my/teach/resources>
- *SchoolNet Malaysia*: Virtual Private Network that provides a secured Internet access to the schools and educational institutions. This seems to be an earlier version of 1Bestari Net. https://www.itu.int/ITU-D/asp/CMS/Events/2010/ITU-ADB/Malaysia/SchoolNet_Pahang.pdf]
- *MyLINE*: The Ministry of Higher Education Malaysia has introduced the portal for Malaysian students of higher learning. Online Resources for Learning in English is a service that offers resources for self-access language learning covering study skills, academic reading, writing and listening, grammar and other resources for learning in English for full-time students of public institutions of higher learning in Malaysia. <http://myline.utm.my/> .

Research and Recent Publications on OER

Deep organized and systematic research on OER is still somewhat thin in the country. Early studies have mostly been around fundamental concerns such as awareness, challenges and impediments as well as access and aspects of production and use of OER. Studies at Wawasan Open University on 'search

technologies', repository building, curation as well as policy issues are being initiated on a modest scale. The following lists recently published scholarly articles on the subject.

Abeywardena, Ishan Sudeera [2013] Perspectives on open and distance learning: Open Educational Resources: an Asian perspective Development of OER-based undergraduate technology course material: "TCC242/05 Web Database Application" delivered using ODL at Wawasan Open University

Abeywardena, I. S., Chan, C. S., & Tham, C. Y. (2013, September 30). OERScout technology framework: A novel approach to open educational resources search. The International Review of Research in Open and Distance Learning. Retrieved April 08, 2014, from <http://www.irrodl.org/index.php/irrodl/article/view/1505/2647>

Abeywardena, I. S., Dhanarajan, G., & Chan, C. S. (2012). Searching and locating OER: Barriers to the wider adoption of OER for teaching in Asia. In Proceedings of the Regional Symposium on Open Educational Resources: An Asian perspective on policy and practices (pp. 1-11). Retrieved from <http://www.oerasia.org/oersymposium>.

Abeywardena, S. I., Dhanarajan, G., & Choo-Khai, L. (2013). Open Educational Resources in Malaysia. In G. Dhanarajan & D. Porter (Eds.), Perspectives on open and distance learning: Open Educational Resources: an Asian perspective (pp. 119-132). Vancouver, BC: COL, OER Asia. Retrieved from http://www.col.org/PublicationDocuments/pub_PS_OER_Asia_web.pdf

Embi, M. A. (2013). Open Educational Resources in Malaysian Higher Learning Institutions.

Dhanarajan, G., & Abeywardena, I. S. (2013). Higher education and Open Educational Resources in Asia: an overview. In Perspectives on open and distance learning: Open Educational Resources: an Asian perspective (p. 17). Retrieved from http://www.col.org/PublicationDocuments/pub_PS_OER_Asia_web.pdf

Dhanarajan, G. "Building knowledge societies in e-merging Asia: is oer a solution or is it wishful thinking?". Retrieved from http://aaou2012.ouj.ac.jp/pdf/Abstract_Prof_Dhanarajan.pdf.

Dhanarajan, G. [2013] Open Educational Resources: A perspective on Quality. Paper presented at a regional consultation workshop on Developing Quality Guidelines for Open Educational Resources. 13-15 March 2013 CEMCA, Hyderabad, India.

G.Dhanarajan [2013] OER in middle and low Income Asia as a means to inclusive life long learning. Proceedings of the 2013 e-ASEM conference on Open Educational Resources, 19-20 December 2013, Bangkok, Thailand. Accessed from xxxxx on 05-08-14.

Chung, S. H. [2013]: OER-based Course development framework in ODL environment. Paper presented at the 27th Annual Conference of the Asian Association of Open Universities. 1-3 October, 2013. Islamabad, Pakistan.

<http://www.aaou2013.com/pdf/156.pdf>

Chung, S.H. [2014] *Framework for development of OER-based learning material. Proceedings 2nd Regional Symposium on OER , Penang, Malaysia*

Fadzil, M. [2014]: *Open Licensing in Open Educational Resources in Lifelong Learning* [ed: Kim, Bowen]. KNOU Press, Seoul, S. Korea. Accessed from xxxx on 05-08-14

Idrus, R. (2013). *Leveraging the educational landscape with Open Educational Resources. In Seventh Pan-Commonwealth Forum on Open Learning (PCF7) 2nd-6th December 2013. Abuga, Nigeria. (p. 6).*

Retrieved from <http://pcfpapers.colfinder.org/handle/5678/123>

Khor, E. T. [2013]: *Implementaion of M-OER Initiative: Prospect and challenges. Paper presented at the 27th Annual Conference of the Asian Association of Open Universities. 1-3 October, 2013. Islamabad, Pakistan.* <http://www.aaou2013.com/pdf/196.pdf>

Kaur, A (2012). *How to adopt OERs in learning design to enhance learning effectiveness: An OUM case study. Paper presented at Southeast Asian Open and Distance Learning in the 21st Century conference. 26-28 October 2012. Danang, Vietnam.*

Kaur, A. [2014]: *A quality framework for OER. Presentation at the Widyatama International Seminar . Accessible from* <http://library.oum.edu.my/repository/938/1/library-document-938.pdf>

Kaur, A., J. Nkosi and F. Seaman. [2013]: *Research trends in Open educational Resources [OER]: Empirical studies published in selected journals from 2003 to 2013. Accessed on 01-08-14 from* <http://pcfpapers.colfinder.org/bitstream/handle/5678/105/Paper%20159%20%20%28Supplementary%20File%29.pdf?sequence=1&isAllowed=y>

Kaur, A. [2013]: *Quality of OERs. Paper presented at a regional consultation workshop on Developing Quality Guidelines for Open Educational Resources. 13-15 March 2013. Hydrebad, India.*

Menon, M. [2012] *An Asian perspective on policy and practices Learning from advocacy: A case of OER policy implementation in the Wawasan Open University. Proceedings of the First Regional Symposium on Open Educational Resources. June 2012, Penang, Malaysia.*

Norazah Nordin [2013]: *Open Educational Resources: Malaysian Higher Learning Initiatives. Proceedings of the 2013 e-ASEM conference on Open Educational Resources, 19-20 December 2013, Bangkok, Thailand. Accessed on 05-08-14 from* http://asemllhub.org/fileadmin/www.asem.au.dk/publications/e-ASEM_OER_2014.pdf

Pawlowski, J., Pirkkalainen, H., Gervacio, J. V., Nordin, N and Embi, A. [2014]: *Contextualization of Open Educational Resources in Asia and Europe in Open Educational Resources in Lifelong Learning* [ed: Kim,

*Bowen]. KNOU Press, Seoul, S. Korea. Accessed on 05-08-14 from
http://asemlllhub.org/fileadmin/www.asem.au.dk/publications/e-ASEM_OER_2014.pdf*

Repositories

Librarians at higher education institutions have been active in building OA repositories for a number of years. These repositories mostly hold thesis, scholarly articles, and institutional publications including journals as well as other related documents which are openly accessible. The contents of these repositories are not peer reviewed. There are twenty three such repositories.¹² Learning materials seldom get captured in these repositories; exceptions to this is the Wawasan OER Repository [<http://eprint.wou.edu.my/>] which is currently being built, as the University continues to develop its OER catalogue of courses.

¹² Zainab, A,N. [2010]: Open Access repositories and journals of visibility: Implications for Malaysian libraries. Malaysian Journal of Library and Information Science. 15 [3]: 97-119.