Awareness of Open Educational Resources (OER): A Malaysian case

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Introduction – Definition of OER

• UNESCO’s definition of OER:
  “Any teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost of access, use, adaptation and redistribution by others with no or limited restrictions”

• Fundamentally, OER items include lecture notes, study materials, tests and samples that can be used, re-used, repurposed and modified freely without infringing copyright.
Introduction – Background on OER

- UNESCO Initiatives on OER:
  - Forum on the impact of open courseware for Higher Education in developing countries (2002)
  - 2012 Paris OER declaration

- OER is intended to change the educational landscape.

- By its nature of free and open concept, the cost of production of educational resources can be minimised or reduced.

- Hence it levels the education playing field for the rich, privileged & under-privileged.
2012 Paris OER declaration:

i. Foster awareness on the use of OER,

ii. Reinforce the development of strategies and policies on OER,

iii. Encourage the development and adaptation of OER in a variety of language and cultural contexts,

iv. Encourage research on OER, and

v. Facilitate finding, retrieving and sharing of OER
Institution-initiated OER in Malaysia include the following:

- Wawasan Open University–OER Asia
- Open University Malaysia (OUM) OER
- Technology University of Malaysia (UTM) Open CourseWare
- International Medical University (IMU) webinar learning series
Other OER Initiatives

Individual initiatives and Science Initiative Group (SIG) Initiatives:

- Web 2.0 OER
- Just-in-time training 2U (jit2u)
- Zaidlearn
- Learning innovation circle (LIC)
- Learning innovation talks (LIT)
Survey conducted on 43 academic staff members from 15 HEIs:

- 70% = Have used OER
  - 13% = Have not used OER before
  - 86% = Would use in future

Respondents mostly downloaded OER materials from the internet.

But seldom download from repositories like MIT OpenCourseWare, MERLOT, OpenLearn and Connexions.
Use of digital resources in M’sian higher educational institutions (HEIs) is confined to: Digital reader files (e.g. PDF), online class discussions, images or visual materials (drawings, photographs, art, posters) and media sources.

Least used: Digital facsimiles of ancient or historical manuscripts, personal online diaries (e.g., blogs) and maps.

Best sources to find digital resources: Search engines/directories, personal collections of resources and online journals.

Most popular use of digital resources: Incorporating them into lectures/online lectures
Abeywardena, Dhanarajan & Lim (2013)

**Negative finding:**

- Use of digital resources would not help university academic staff get promotion.
- Use of OER distracted academic staff from core goals of teaching.
- Academics felt they needed support in finding digital resources, assessing their credibility, evaluating their appropriateness for teaching goals and securing copyright permissions to fully harness the potential of OER in teaching and learning.
• Hoosen (2012): OER activities are mainly confined to university level.

• OER activities in both primary and secondary schools are lacking.

• Hence there is a need to carry out OER study at school level.

• This study tries to fill the gap on the lack of study of OER use in Malaysian schools.
Research Methodology

• Mixed method approach to investigate the adoption of OER by teachers.

• **Survey questionnaire** is used to collect data on demography, status of awareness, use and intention to use OER.

• Constructs for the Research Framework: Perceived Ease Of Use, Perceived Usefulness, Subjective Norm, Attitude towards OER and Behavioural Intention to Use.

• **Focus Group Discussion** to triangulate the data obtained.
Research Framework – Technology Acceptance Model (TAM)

Subjective Norm on OER

Perceived Usefulness of OER

Perceived Ease of Use of OER

Attitude towards OER

Behavioral Intention to Use OER
Research Questions

- What is the level of awareness on OER among Malaysian teachers?
- What is the level of adoption of OER among Malaysian teachers?
- What is the level of contribution of OER among Malaysian teachers?
- What is the level of intention to use OER in future among Malaysian teachers?
- What are the perceived benefits and barriers on the use of OER among Malaysian teachers?
- What are the popular types of OER used by Malaysian teachers?
- What are the relationships between the various constructs according to TAM?
Results / Discussion

• 165 survey questionnaire distributed in one secondary school in Klang Valley Malaysia

• Response rate 83.6% (n=138)

• Survey instrument consists of three parts: demographic, status of OER use and constructs section.
Results / Discussion

The Respondents’ Profile: Age Group

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Contribution, Usage, Awareness and Intention to Use OERs

- Contribution to OERs: 14.5%
- Usage of OERs: 31.9%
- Awareness on OER: 38.4%
- Intention to use OER in future: 70.3%
Barriers to Adoption of OERs

- Lack of reward: 15.9%
- Lack of support: 27.5%
- Copyright infringement: 28.3%
- Reliability and Validity: 35.5%
- Difficult to locate OER: 48.6%
- Time consuming: 71.0%
Perceived Benefits of OERs

- Reduce development time: 31.2
- Reduce development cost: 31.9
- Develop communities and build connections: 36.2
- Enhance current practice: 37.7
- Share best practice: 49.3
- Enhance users' knowledge: 65.9
Types of OERs Used by Teachers

- Podcasts: 4.3%
- Recorded Lectures: 13.8%
- Reading List: 15.2%
- Handbook: 24.6%
- Interactive Learning Object: 34.8%
- Animations: 38.4%
- Lecture Notes: 44.9%
- Summative Assessment: 48.6%
- Formative Assessment: 50.0%
- Images: 51.4%
- Powerpoint Slide: 60.9%
## Correlation

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Discussion

• Teachers’ perception on intention to use OER in future: High

• Awareness and usage of OER: Still low.

• Main barrier of using OER:
  ▪ Time-consuming to find the appropriate OER for teaching
  ▪ Not easy to locate the OER.
  ▪ Teachers question the reliability and validity of available OER.
Discussion

• Encouraging to note that teachers were not so much looking for reward when they used OER.

• Possible reason: They have higher intrinsic motivation, they believe that gaining and sharing extra knowledge with others are the important benefits of using OER.

• Surprisingly: Teachers did not really consider that using OER could reduce the development cost and time.

• Common OER used: Presentation slides, images, formative and summative assessment, lecture notes, animations, interactive learning objects.
Focus Group Discussion Results

Thematic Qualitative Analysis:

1. Favorite teaching aids
2. Favorite references used for teaching - textbooks or internet
3. Whether the resources are categorised as OER
4. Benefits of OER
5. Limitations of OER
Focus Group Discussion Results

1. Favourite teaching aids:
   Flash card, hands-on equipment, video stimulation, presentation slides, worksheets from internet

2. Favourite references used for teaching:
   Some prefer textbooks, some prefer internet.

   “Because textbooks are actually written by experts and it is compulsory to use textbooks”
3. Whether the resources used are categorised as OER

- Respondents mentioned the resources used (ERIC Educational Resources, Science Direct, Reed Elsevier) but unable to explain whether these are categorized as OER or not.

- They are not aware of the licensing and copyright issues.

  “We just search for the videos and just use them”
4. Benefits of OER:

- The respondents found OER useful and beneficial for their teaching.
  
  “Make our lesson more interesting”
  “Seems like students understand it better”.

- They would adapt the resources to match with the syllabus and their students’ learning level.
  “Because we cannot take 100% on whatever is given”.

5. Limitation of OER:

- Most respondents agree OER has its benefits; they would like to adopt OER.
- However, main reasons for not using: Limitation of infrastructure in schools, e.g. not all classrooms are equipped with LCD projector.
  - “The facility in school or classroom cannot accommodate the higher technology”
  - “We have rooms where we can use all the facilities but not all classrooms”
- Another deterring factor: Relevance of OER with the school syllabus.
  - “We have to compromise with our syllabus”
  - “We have to spend lot of time, trying to collect them and then adapt them or do whatever necessary”.
More awareness campaigns or road shows to be held in schools so that teachers are aware of the potential benefits of using OER in their lessons.

Ministry of Education will need to initiate the effort to create a repository of related OER, based on the school curriculum, to be used in schools.

Also, to evaluate quality of OER compiled.

Each of these constructs can be looked into carefully when planning for implementation and development of OER in future.
Conclusion

• Preliminary findings on use of OER in a Malaysian secondary school.

• Extended studies can be used as a basis to formulate policies to implement the adoption of OER in M’sian secondary schools.

• A key aspiration of Malaysian Education Blueprint 2013–2025 (Preschool to Post Secondary Education): to half the achievement gap between urban and rural schools by 2020

• OER is the way forward, especially for rural schools
Thank You

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UTAR CLT is an official Resource Distribution and Training Centre (RDTC).

Questions & Feedbacks are welcomed:

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Extended study of OER by UNESCO–UTAR CLT

Awareness & Use of OER:

- Types of subjects, urban/rural school, township population, computer/lab/internet access
- Know what is OER
- Experience on using OER – Types, pedagogical approach, benefits, barriers/challenges, type of support needed
- Views on use of OER and ease of use
- Anticipated use of OER
- Objective: Develop a global guidebook for teachers in accessing, exploring, evaluating, using, repurposing & sharing OER.