

Regional Consultation Workshop on
Developing Quality Guidelines for

Open Educational Resources

13 - 15 March, 2013

Maulana Azad National Urdu University
Hyderabad - India

Organized by



*Regional Consultation Workshop on
Developing Quality Guidelines for*

Open Educational Resources

13 - 15 March, 2013

Maulana Azad National Urdu University
Hyderabad - India

Organized by



CEMCA

Commonwealth Educational Media Centre for Asia
New Delhi



Maulana Azad National Urdu University
Hyderabad

Report prepared by Dr. Sanjaya Mishra and Ms. Deepali Tyagi, with inputs from Dr. Saneem Fathima. The presentations, and papers are shared in this report as presented in the workshop, and have not been edited and the contents and views expressed are that of the authors/presenters. The organisers and/or sponsors are not responsible for any of the opinions expressed in the document.

We are thankful to all the participants, presenters, expert resource persons, and Vice Chancellor of MANUU for their contribution to the success of the event. Our special thanks are due to Tan Sri Prof. Gajaraja Dhanarajan and Prof. V. S. Prasad for sparing time for the event and sharing their expertise with the participants and improving the quality of deliberations.

For further information, contact:

Commonwealth Educational Media Centre for Asia

13/14, Sarv Priya Vihar
New Delhi 110016
<http://www.cemca.org.in>

Workshop presentations are available at:

<http://www.slideshare.net/CEMCA/presentations>

Workshop Photos are available at:

<http://www.flickr.com/photos/84936186@No2/sets/>

Workshop Report is available at:

<http://www.cemca.org.in/resources/workshop-reports>

CEMCA is an international organization established by the *Commonwealth of Learning*, Vancouver, Canada to promote the meaningful, relevant and appropriate use of ICTs to serve the educational and training needs of Commonwealth member states of Asia. CEMCA receives diplomatic privileges and immunities in India under section 3 of the United Nations (privileges and immunities) Act, 1947.

Contents

Contents

1.	Introduction and Overview	5
2.	Inauguration	6
3.	Workshop Proceedings	8
4.	Workshop Agenda	13
5.	List of Participants	15
6.	OER Quality Criteria Discussed	19
7.	Papers and Presentations	33



Participants at the Regional Consultation Workshop on Developing Quality Guidelines for Open Educational Resources

Introduction and Overview

The issue of quality OER has been raised often in different fora ever since the emergence of the phrase -- Open Educational Resources -- in the “Forum on the Impact of OpenCourseWare on Higher Education in the Developing Countries” in 2002. Notwithstanding various OER projects and initiatives, teachers and users of OER do not have a set of criteria and guidelines to consider before using any OER in their own context. While it is argued that the quality indicators should be same for use of learning materials in any context, the nature of OER and digital networked environment brings in new dimensions. Considering the complexity, the Commonwealth Educational Media Centre for Asia (CEMCA) has been engaged in developing quality guidelines for OER. The objective of this activity is to assist users of OER to assess quality from a lens devised by them using the criteria in the guidelines. It is in this background that a three-day Regional Consultation Workshop on “Developing Quality guidelines for Open Educational Resources” was held at Maulana Azad National Urdu University (MANUU), Gachibowli, Hyderabad on 13-15 March, 2013 organized jointly by MANUU and CEMCA. The workshop had a select group of fifty participants; fifteen among them were nominated by CEMCA who were scholars of very high repute in the Open and Distance Learning (ODL) as well as OER. The workshop hosted a mix of keynote presentation, paper presentations and group discussions on quality criteria for OER developed and facilitated by Prof. Paul Kawachi, Professor of Instructional Design, and Editor of the *Asian Journal of Distance Education*. The workshop was facilitated by Prof. Paul Kawachi for the discussions on criteria of the guidelines, while Prof. V. S. Prasad, Former Director, National Assessment and Accreditation Council (NAAC), India chaired the two technical paper presentation sessions. Ten experts presented their views on the quality issues affecting OER. The group activities on the OER quality guidelines looked at the comprehensive work done by Prof. Kawachi, including the international consultations over the Internet with 50 experts.

Inauguration of the Workshop

The workshop began with a formal welcome by Prof. K.R. Iqbal Ahmed, Director, Directorate of Distance Education, MANUU, followed by introductory remarks by Prof. Mohammad Miyan, Vice Chancellor, MANUU. Prof. Mohammad Miyan in his inaugural address emphasized the need for providing excellent student support system and also to provide the student with adequate learning resources. He also highlighted the need for collaboration with the neighboring universities and countries which may go a long way in developing Open Educational Resources (OER).

The Guest of Honor for the occasion, Prof. V.S. Prasad, Former Director of NAAC, emphasized the role of print media in distance teaching, and its quality in the context of OER should be looked into critically. He said that “One must be radical in ideas and pragmatic in approach.” He emphasized that the guidelines to be developed may cover different user perspectives namely -- Institutional Perspective, Students Perspective and Faculty Perspective.

Tan Sri Prof. Gajaraj Dhanarajan, Former President and CEO, Commonwealth of Learning, and current Chair of Board of Governors, Wawasan Open University (WOU), Malaysia graced the occasion as Chief Guest and delivered the keynote address highlighting the old and emerging paradigms of accreditation and quality assurance in higher education. He discussed the meaning of Quality Assurance in OER ecosystem and urged to rethink openness in OER. He also discussed at length the COL-UNESCO Nine point Guideline for the production of OER:

1. Include labeling to indicate what learning needs the resource addresses;
2. Allow the creation of variations and enhancements through open licenses;
3. Support flexible styling (e.g., enlarging the font, enhancing the color contrast and adjusting the layout for students with vision impairments or mobile devices);
4. Support keyboard control of functions and navigation (for students who cannot use or do not have access to a mouse or pointing device)
5. Provide audio or text descriptions of non-text information presented in videos, graphics or images (for students who have visual constraints or who have limited displays);

6. Provide text captions of information presented in audio format (for students who have hearing constraints or lack audio interfaces);
7. Cleanly separate text that can be read in the interface from underlying code or scripting (to enable translation);
8. Use open formats wherever possible to make it easier for alternative access systems and devices to display and control the resource; and
9. Adhere to international standards of interoperability so that OER can be used on a wide variety of devices and applications.

He also provided an overview of Quality in the context of OER to contextualize in three aspects namely: Quality in the production of OER; Quality from the perspective of users; and Quality from an institutional context. (See full text of the lecture at page 35-42).

Dr. Sanjaya Mishra, Director, CEMCA proposed vote of thanks at the end of the inaugural session, and highlighted that the workshop is highly relevant as it is being organized during the second World Open Education Week (11-15 March 2013). He stated that the approach taken by CEMCA is modest, and it is expected that the document released through a consultative process would remain open and dynamic to remain up-to-date and useful to the stakeholders. The vision is to develop a set of guidelines that different stakeholders can adopt in their own contexts, and Prof. Paul Kawachi has compiled a comprehensive set of indicators through literature review and expert online consultation. He also assured that CEMCA will continue to assist organizations interested in promoting the use of OER, and a professional development course on OER-based eLearning is currently under development in collaboration with WOU. Dr. Sanjaya Mishra thanked the Vice Chancellor and staff of MANUU for their willingness and support to host the regional consultation workshop.



Workshop Proceedings

Prof. Paul Kawachi in his detailed presentation on “Open Educational Resources: Open Learning Model of Good Practice” highlighted the case related to open learning in rural development as a model of Good OER practice. He opined that teachers must be lifelong students. In his presentation, he also explained the difference between open and distance education. He also said that many developing countries want open learning and distance education. He elucidated some definitions of terms like distance education, open learning, cooperative learning, collaborative learning and transactional distance. He further defined Reusable Learning Objects (RLO), Open Educational Resources (OER), and Open Educational Practices (OEP). He emphasized that OER can be well integrated in the study skills practices of the students in open distance and online learning.

Over the three days, nine participant presentations were made besides the presentations from the keynote and the facilitator. The participant presentations emphasized various aspects of quality in OER. Some of the highlights of the presentations are as follows:

Dr. Abtar Kaur, Professor, Open University Malaysia, Kuala Lumpur, Malaysia presented her paper on the topic - “Quality of OERs”. After talking about the evaluation of OER sites of University of Nottingham and Open University UK, she also suggested how quality of OER of these sites can further be improved. (See full text of presentation at page 43-53).

Prof. Dr. Md. Abdul Mannan, Vice Chancellor, European University of Bangladesh spoke on the OER and QA tensions and challenges as:

- Institutional conservatism v/s Openness
- Individualism v/s collectivism
- Expansion for Quantity v/s openness for opportunity
- Print media v/s electronic media.
- OER Movement v/s Quality
- Development of OER and Quality

He also briefed on the challenges in the institutional OER Quality Assurance, role of quality assurance/accreditation bodies and validation bodies. (See page 81-82 for the presentation).

Dr. Nabi Bux Jumani, Professor of Education & Dean, International Islamic University Islamabad, Pakistan in his presentation focused on the following aspects of OER as listed below:

- Clarification of intellectual property rights
- Sustainable production as well as sharing of resources
- Enhancing access and effectiveness
- Inadequate ICT infrastructure
- Language and culture
- Locating and using the resources
- Inadequate financial back up
- Maintaining equilibrium between open and for profit educational resources
- Underestimation of quality of open educational resources
- Lack of incentives for educators as well as universities to produce open educational material
- Assessment and certification of the learners
- Lack of awareness of OER

He also discussed at length, the findings and conclusions about the current status, need, barriers and utilization of OER in Pakistan. (For full text of the presentation see page 61-68).

Prof. Vijitha Nanayake, Vice Chancellor of Open University of Sri Lanka, Colombo presented the case study entitled, “The Open University of Sri Lanka – OER polity and quality issues.” He informed the steps taken to promote OER in the form of:

- Establishment of OER cells at faculty levels to encourage the transformation of the foundation level courses.
- Identifying OER champions at faculty levels.
- Introduction of an incentive mechanism to motivate those staff members making extra-effort to carry out OER transformation.
- Train academic staff members interested in OER
- Encourage research initiatives to examine the processes, problems and prospects of OER
- Initiative taken by the Education Faculty of the OUSL in 2013 with a view of designing, development and evaluation of an Online Learning Environment on Open Educational Resource for science education. This initiative will integrate ICT and OER into teacher education programs and capacity building of teacher educators at the Open University.



He also stressed upon the benefits of OER initiatives in general. Barriers to successful implementation of OER in Sri Lanka were also shared by him:

- Traditional mindset
- Poor infrastructure for online learning
- Lack of trained staff
- Negative attitudes of the academics
- Lack of material resources
- Legal barriers
- Lack of government policy on OER

He informed that OUSL also have supportive division to develop OER. In principle OUSL accepted the need of converting all academic programmes in the form of OER and also they thought of developing all foundation level courses in the form of OER. (Full text of his presentation is available at page 69-77).

Second day of the workshop started with the presentation by Prof. Mohan Menon of Wawasan Open University, Malaysia. He presented his lecture on “Quality Issues in OER-Need for a comprehensive perspective”. He emphasized that open is the most important aspect of OER that makes it different from other educational resources. Some of the quality issues highlighted by him are: accessibility, relevance, significance, pedagogy, presentation, usability, motivation, findability, discoverability, searchability, and reusability. (See presentation at page 78-80).

Dr. Pradeep Kumar Mishra, Associate Professor, Educational Technology, MJP Rohilkhand University presented his views on “Quality Assurance in OER” emphasizing more on the tripartite review mechanism proposed by him for Developers, Peers and Users of OER. The proposed review mechanism takes care of content, pedagogy, presentation and publication issues. (Full text of his presentation is at page 54-60).

Prof. Uma Kanjilal from IGNOU presented her views on the topic, “Quality in OER in the Indian context”. In her presentation, she said that IGNOU has uploaded all the courses, video programmes as OER and it is the only massive online open course portal in the country. In her opening remarks she explained that IGNOU has introduced PG Diploma in ‘e-learning’ which is completely OER-based. Prof. Uma Kanjilal also mentioned other initiatives such as National Mission on Education through ICT, NPTEL, e-Pathsala, CEC, IGNOU (all commissioned projects), virtual labs, OSCAR, Talk to a Teacher, Content developed based on four quadrant approach, Quality assurance through peer reviewing by PRSG and the upcoming 50 DTH channels for Education – massive content requirement to feed these channels.

IGNOU is looking for the following issues on development, use and reuse of OER:

- Quantity v/s Quality,
- Relevance or fitness for use and
- Cost factors

Usability (Technical/Legal), authenticity and pedagogic value being the quality parameters for OER were also discussed at length by her. In her concluding remarks she said that there is an urgent need for guidelines and indicators for quality assurance and quality assurance tool kit should be introduced in OER and user-friendly tools to locate and retrieve OER-standard metadata are required through Quality Assurance based toolkit need to be integrated in the OER platforms. (Her presentation is at page 83-85).

Dr. H.C. Pokhriyal, Executive Director, School of Open Learning, University of Delhi addressed on the topic, “OER – From the perspective of Quality Governance.” In his opening remarks he said that guidelines can be converted into indicators which can be put as OER index. He has explained that any such quality index should focus on inputs, processes and outputs. He also emphasized that OER should be seen beyond ICT and as one of the components facilitating learning. (His presentation is at page 86).

Dr. Savithri Singh, Principal, Acharya Narendra Dev College, Delhi presented her thoughts on quality guidelines for OER. She said that any material we develop as OER should have following validities, i.e. content validity, process validity, historical validity, cognitive validity, ethical validity & environmental validity. There should be a space for the contribution of learners, for example; learners experience should inform the OER and OER should give space for skill development. (Her presentation is at page 87).

Prof. V.S. Prasad moderated the Q&A in both the sessions of the presentations by the participants and highlighted the important points from the experiences of the delegates. He said that the quality guidelines on OER to be released by CEMCA should be practical and look into its applicability, from the perspective of the three stakeholders – teachers, students and institutions. It should also focus on promoting quality through capacity building workshops, and undertake validation of the guidelines developed through this consultation. The guidelines should be presented in a short booklet to be more useful, and help the stakeholders to remember and use.

Prof. Paul Kawachi through mini-workshops presented the quality criteria developed (see page 21-31) by him through review of literature and expert consultations. During these deliberations, the participants in groups discussed and elaborated the criteria to be covered within a new framework of (T) Teaching and Learning, (I) Information and Content, (P) Presentation, and (S) System. Five teams shared their views in three mini-workshops, which were collected by Prof. Kawachi for inclusion the draft “OER Quality TIPS” to be released by CEMCA for further validation and refinement.

After deliberations for over two and half days, the workshop concluded on day three when all the participating experts and select local participants shared their views about the process adopted and lessons learnt. While the local participants were happy, they wanted more workshops to develop OER skills, and Prof. V.S. Prasad in his concluding remarks emphasized the need for further study and implementation of OER in ODL system. In the absence of Dr. Sanjaya Mishra, Director, CEMCA, Mr. R.



Thyagarajan, Head, Administration & Finance, proposed vote of thanks to the host and all the participants in the workshop.

Three outputs in particular are worth noting at the end of the workshop. One is the construction of guidelines on quality, for teachers and/or students as original authors or adapters of OER. Another is the development of a training module (much like that used for online tutor training) for these authors and adapters, with built in examples, models, templates and so forth. The other is the concept of a new domain suffix as (dot).oer. While this third output initially related to discoverability concerns, what with the millions of already existing OER many of doubtful quality and reusability, the domain.oer could serve as a white-list of good quality OER from now onwards. It could serve as a process gateway through which people prepare their OER conscientiously. So that rather than dumping out-of-date lectures, the authors prepare good quality OER.

Annexure A

Workshop Agenda

Regional Consultation workshop on
**Developing Quality Guidelines for
 Open Educational Resources**

13-15 March 2013

Venue:

Maulana Azad National Urdu University
 Gachibowli, Hyderabad, India

Dates & Time	Session, Activities & Facilitators
13 March, 2013 10:00 – 11:00	Registration of participants Tea: 10:45
11:00 – 12:00	Inauguration of the Workshop Welcome of Guests: Dr. K.R. Iqbal Ahmed, Director, DDE, MANUU Introductory Remarks: Prof. Mohammad Miyan, Vice Chancellor, MANUU Guest of Honour: Prof. V.S. Prasad, Former Director, NAAC Chief Guest: Tan Sri Prof. Dr. Gajaraja Dhanarajan, Former President, Commonwealth of Learning Vote of Thanks: Dr. Sanjaya Mishra, Director, CEMCA
12: 00-13:00	Overview of the Consultation Speakers: 1. Sanjaya Mishra: Overview 2. Prof. Paul Kawachi: Introduction to OER and the Quality Contexts Q&A



13:00 - 14:15	Lunch
14:15 – 15:45	Participant Presentations Chair: Prof. V.S. Prasad, Former Director, NAAC Panel: <ol style="list-style-type: none"> 1. Prof. Abtar Kaur, OUM, Malaysia 2. Prof. Nabi Baux Jumani, Pakistan 3. Prof. Abdul Manan, Bangladesh 4. Dr. Vijitha Nanayakkara, OUSL, Sri Lanka Q & A
15:45 – 16:15	Tea/Coffee Break
16:15 – 17:30	OER Quality: Philosophy and Frameworks (sharing the International Consultation: process and outcomes) Presenter: Paul Kawachi Group Work and Discussion
14 March, 2013 10:00-11:30	Participant Presentations Chair: Prof. V.S. Prasad, Former Director, NAAC Panel: <ol style="list-style-type: none"> 1. Prof. Mohan Menon, WOU, Malaysia 2. Dr. Pradeep Misra, India 3. Prof. Uma Kanjilal, India 4. Dr. Savithri Singh, India 5. Dr. H.C Pokhriyal, India Q & A
11:30- 12:00	Tea/Coffee Break
12:00- 13:00	Discussions on Guidelines Presentation by Paul Kawachi followed by Group Work
13:00-14:15	Lunch
14:15 - 15:45	Discussions on Guidelines Presentation by Paul Kawachi followed by Group Work
15:45 – 16:15	Tea/Coffee Break
16:15 – 17:15	Discussions on Guidelines Presentation by Paul Kawachi followed by Group Work
15 March, 2013 10:00-11:30	Summary of the Workshop Deliberations Presentations by Groups, and Consolidation by Paul Kawachi
11:30- 12:00	Tea/Coffee Break
12:00- 13:00	Workshop Closure and Way Forward
13:00-14:15	Lunch
14:15 - 18:00	City Tour (for outside participants)

Organized by

Commonwealth Educational Media Centre for Asia, New Delhi
and
Maulana Azad National Urdu University, Hyderabad

Annexure B

List of Participants

Participants

S. No	Names	E-mail ID
1	Prof. Mohammed Miyan Vice Chancellor Maulana Azad National Urdu University Gachibowli, Hyderabad - 500 032	
2	Tan Sri Dato Prof. Gajaraj Dhanarajan Wawasan Open University 54, Jalan Sultan Ahmed Shah 10050 Penang Malaysia	Gdhan[at]wou[dot]edu[dot]my
3	Prof. Dr. Abdul Mannan Vice Chancellor European University of Bangladesh Rupayan Shelford, Plot # 23/6, Block # B, Mirpur Road, Shyamoli, Dhaka, Bangladesh	joyamannan[at]yahoo[dot]com[dot]au
4	Dr. Vijitha Nanayakkara Vice Chancellor The Open University of Sri Lanka P.O. Box 21, Nawala Nugegoda 10250 Sri Lanka	vijithapdn[at]gmail[dot]com
5	Prof. Paul Kawachi Professor of Instructional Design Editor Asian Journal of Distance Education 1927-1-206 Higashi Kushiwara Kurume City, Fuukuoka 8300003 Japan	Kawachi[at]open-ed[dot]net

6	Prof. Nabi Bux Jumani Department of Education International Islamic University New Campus, H-10 Islamabad Pakistan	nbjumani[at]yahoo[dot]com nb[dot]jumani[at]iiu[dot]pk
7	Prof. Abtar Kaur Faculty of Education and Languages Open University Malaysia Jln Tun Ismail, 50480 Kuala Lumpur Malaysia	abtar[at]oum[dot]edu[dot]my
8	Prof. Uma Knjilal Coordinator, eGyankosh, IGNOU, Maidan Garhi New Delhi.	ukanjilal[at]ignou[dot]ac[dot]in
9	Dr. Pradeep Kumar Misra Associate Professor (Educational Technology) Department of B.Ed./M.Ed. M.J.P. Rohilkhand University Bareilly (U.P.)-243006	pradeepmsr[at]yahoo[dot]co[dot]in
10	Dr. H.C. Pokhriyal Executive Director School of Open Learning (Campus of Open Learning) University of Delhi 5, Cavalry Lane New Delhi - 110 007	hcp[at]sol[dot]du[dot]ac[dot]in hcpokhriyal[at]gmail[dot]com
11	Dr. Savithri Singh Principal, Acharya Narendra Dev College Kalkaji, New Delhi.	Principalandc[at]gmail[dot]com
12	Prof. Mohan B. Menon Assistant Vice Chancellor Wawasan Open University, 54, Jalan Sultan Ahmed Shah 10050 Penang Malaysia.	Mohandasbm[at]wou[dot]edu[dot]my
13	Prof. V. Venkaiah Vice-Chancellor Krishna University AJ Kalasala Campus Rajupeta, Machilipatnam - 521 001 Andhra Pradesh	Vicechancellorku[at]gmail[dot]com venkaiah[dot]v[at]gmail[dot]com

14	Prof. V.S. Prasad Flat No.302, Hallmark Residency, Arora Colony, Road No.3, Banjara Hills, Hyderabad-500 034, Andhra Pradesh	prasadvs99[at]hotmail[dot]com
15	Prof. P. Prakash Vice Chancellor, Dr. B.R. Ambedkar Open University Prof. G. Ram Reddy Marg Road No. 46, Jubilee Hills Hyderabad – 500 033 India	Vc[at]braou[dot]ac[dot]in
16	Prof. K.R. Iqbal Ahmed Director, Directorate of Distance Education Maulana Azad National Urdu University Gachibowli, Hyderabad - 500 032	
17	Prof. S.A. Wahab Professor DDE	Wahab[dot]qaiser[at]yahoo[dot]com
18	Dr. Nisar Ahmed I Mulla Associate Professor Commerce	dr[dot]nimulla[at]gmail[dot]com
19	Dr. Gulfishaan Habeeb Associate Professor English	majesticeloquence[at]gmail[dot]com showerofpetals[at]yahoo[dot]co[dot]in
20	Dr. Mushtaq Ahmed Patel Associate Professor Education	Patel_mushtaq[at]hotmail[dot]com
21	Dr. Nikhath Jahan Associate Professor Urdu	Sanober_nikhath[at]yahoo[dot]com
22	Mr. M.K. Vairagi Deputy Registrar	
23	Dr. H. Aleem Basha Associate Professor Physics	dr.h[dot]aleem[dot]basha[at]gmail[dot]com
24	Dr. Mohd Fahim Akhtar Assistant Professor Islamic Studies	fanadvi[at]gmail[dot]com
25	Dr. Malik Raihan Ahmad Assistant Professor Sociology	malikraihan[at]rediffmail[dot]com
26	Dr. Firoz Alam Assistant Professor Urdu	firozdde[at]gmail[dot]com
27	Mr. Ashwani Assistant Professor Education	ashwani2tanwar[at]yahoo[dot]co[dot]in
28	Mr. Mohd Sadat Shareef Assistant Professor Commerce	
29	Dr. S. Maqbool Ahmed Assistant Professor Botany	maqboolmanuu[at]yahoo[dot]com
30	Mr. Anil Kumar Assistant Professor Education	Anil[dot]manuu[at]yahoo[dot]com
31	Mr. Khaja Moinuddin Assistant Professor Mathematics	Kmoinuddin71[at]gmail[dot]com

32	Mrs. Atiya Naheed Assistant Professor Distance Education	Atiyanaheed786[at]yahoo[dot]com
33	Mr. B. L. Meena Assistant Professor Education	blalmeena[at]gmail[dot]com
34	Dr. Abdul Ghani Assistant Director	manuujmu[at]yahoo[dot]co[dot]in
35	Mr. Aftab Alam Baig Assistant Director	Aftab[dot]baig[at]yahoo[dot]com
36	Mohd Mubashir Ahmed A.R Exam	Mubashir_sucess[at]yahoo[dot]co[dot]in
37	Dr. G. Saroja Dr. B.R. Ambedkar Open University	drsaroja[at]hotmail[dot]com
38	Dr. M.A. Azeem Associate Professor, Department of Management and Commerce	
39	Dr. Salma Farooqui Associate Professor History DDE Manuu	salmafarooqui[at]gmail[dot]com
40	Dr. G. Lakshmi	luxmi9[at]gmail[dot]com
41	Dr. Rabindranath Solomon Assistant Professor- Commerce, BRAOU	rabindranathsolomon[at]gmail[dot]com
42	Prof. Raihana Sultana Women Studies	
43	Dr. Saneem Fathima Management Studies	
44	Prof. S. Rahmatulla Registrar, MANUU	
45	Prof. V. Venkaiah Vice Chancellor, Krishna University	
46	Dr. Mohammad Fariyed PRO	
47	Mr. K. Narayanan Former Head, Admn. & Finance, CEMCA	
48	Dr. Kamishwari Moorthy Regional Director, IGNOU, Hyderabad	
49	Dr. Krishnaiah IGNOU Regional Centre, Hyderabad	
50	Dr. Raju Bolla IGNOU Regional Centre, Hyderabad	
51	Rafiq Ur Rahman	rafiq[dot]rehman[at]rediffmail[dot]com
52	Mr. R. Thyagarajan Head, Administration & Finance, CEMCA	
53	Dr. Sanjaya Mishra Director, CEMCA	

**Quality Criteria Presented and
Discussed during the
Workshop**



Guidelines on Quality Assurance for Open Educational Resources

- An International Project

<http://www.open-ed.net/oer-quality.html>

Workshop Task 3: QA Criteria for OER

<http://www.open-ed.net/oer-quality/criteria.docx>

This table of criteria is being continuously updated

Please see the above link for the latest available version

The Project-Framework is proposed as drawn in TABLE 7 below consisting of categories and their respective components. While any one OER might not embrace every aspect suggested by these components, this Project-Framework offers Guidelines to help authors build in those components they feel most appropriate. It serves as a Checklist to Authors for OER Quality Assurance.

Workshop participants are given this TABLE 7 and are asked to circle the number in the centre column to indicate the component(s) to be included into the Proposed Framework. New suggestions will be elicited before and during the forum and shared so that all participants have an up-to-date set of these Guidelines.

Some components are marked by a superscript 1, 2 or 3 to suggest the user level. The three arbitrary levels are shown in FIGURE 1 below. Level 1 refers to the storekeeper users (the repositories, portals and organisations) at the internationalised context-free level fully capable for cross-cultural transmissibility. Level 2 refers to the intermediate users (the providers, teachers, or translators) at a globalised but not yet internationalised context. Level 3 refers to the intended end-users (notably the student learning) at the most localised context. The people at each of these levels can

reasonably be expected to hold different perspectives and definitions of what constitutes 'quality' for the OER.

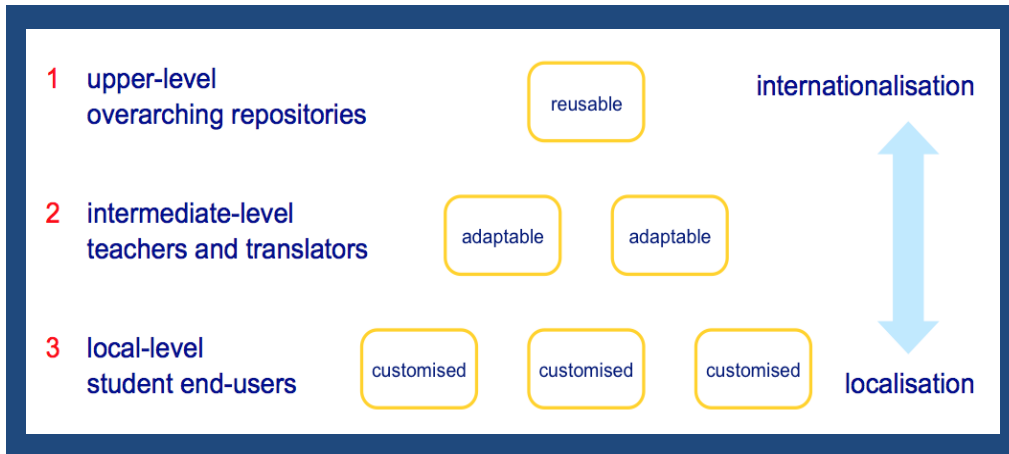


Figure 1 : The Arbitrary Levels of OER Users for this Study

Further consider whether these levels need sub-dividing eg **2** intermediate-level teachers and translators divided according to various cultural regions, and /or **3** local-level student end-users divided into **3a** primary school, **3b** secondary school, **3c** university, **3d** vocational, **3e** informal lifelong.

A Comprehensive Model:

When we adopt fitness-for-purpose as the overriding concern for defining the quality of an OER, then this suggests we focus on the learning achieved by the students who use the OER. There are five and only five *Domains of Learning*, focusing on achieved learning by students, and which cover all known educational objectives. Thus the *Domains of Learning* could be a good Framework as a basis, and onto which to position the various components concerning quality for OER.

According to some reports the quality of an OER should be determined by the subject content material (which is in the *Cognitive Domain of Learning*), while others have said the OER should be interesting and fun for the student (in the *Affective Domain*). Built-in self-assessment has also been advocated (in the *Metacognitive Domain*), accessibility and localisation (in the *Environment Domain*), and discoverability as well (in the *Management Domain*) have been suggested.

A background Paper <http://www.open-ed.net/library/domains.pdf> and an associated Presentation <http://www.open-ed.net/library/domains.ppt> on the *Domains of Learning* are prepared. Briefly the five *Domains* and their respective

coverage are summarised below. Together these constitute a full comprehensive model of learning, to serve as the basis of the Project-Framework here.

1. *Cognitive Domain*: the content knowledge, content skills, and reflective critical thinking skills to be learnt
2. *Affective Domain*: the motivations, attitude and decision to initiate performance, learner independence and autonomy
3. *Metacognitive Domain*: understanding how the task is performed, and the ability to self-monitor, evaluate and plan own future learning
4. *Environment Domain*: the localisation, artistic presentation, language, multimedia, interactivity, and embedded links to other content
5. *Management Domain*: discoverability, tagging, including for time management, transmissibility, business models

Some popular concerns are regarding accuracy and academic validity, which are in the *Cognitive Domain*. There is also awareness to initiate each of the various motivations to learn in the *Affective Domain* and how to help a student who develops a mood due to the content being overly difficult. The other three *Domains* are much less recognized, except for the *Management Domain* where a few aspects are now popularly mentioned such as searching skills, discoverability and coping with the massive amount of data available these days through the web.

The following **Table 7** includes those components so far gathered from literature archives, from online discussions and other communications. The lists of various components are collated under sub-headings, and may be incomplete. Workshop participants are invited to revise the wording *eg* use 'should be' or use 'must be', to add to the lists, to share their own ideas, and to critique the coverage by circling those items they feel should be included into the final Project-Framework as the Guidelines on Quality Assurance for OER.

There is some overlap, *eg* Item 5.1.5 in the *Management Domain* is also in the *Cognitive Domain*, and perhaps too the *Affective Domain*. Moreover some items are alternative to others *eg* in Item 1.1.13 participants can choose which part to keep.

Concerning Section 2 *Affective Domain*, a background Paper is prepared on the motivations to learn at <http://www.open-ed.net/oer-quality/motivations.pdf>. In particular we need to consider the extrinsic motivations such as offering badges and credits, *eg* the early availability of a Badge to reward a student engaging the OER and participating effectively in a community after posting up a self-introduction and commenting on other self-introductions by end-users.



Table 7: QA Criteria for OER
(this table is being continuously updated)

1. Content - Cognitive Domain :	
1.1 knowledge and skills content	
1.1.1	knowledge must be accurate
1.1.2	knowledge must be verifiable
1.1.3	knowledge must be up-to-date
1.1.4	³ should be appropriately localised
1.1.5	should include a date, and date of next revision
1.1.6	content should be clear, concise, and coherent
1.1.7	author must include subject expert
1.1.8	content must be reliable and be seen to be reliable
1.1.9	aligned to national curriculum standards
1.1.10	all content presented must be relevant
1.1.11	matched to external accrediting examinations
1.1.12	content must be internally consistent
1.1.13	be appropriate to purpose
1.1.14	² aligned to local wants and needs
1.1.15	where possible related to practical employable skills
1.1.16	formative self-assessment is linked to help mechanisms
1.1.17	³ content should be easily transferrable to external situations
1.1.18	³ content should bring in the culture of the student
1.1.19	² should anticipate the current and future needs of the student
1.1.20	content should model future application by the student
1.2 pedagogy	
1.2.1	must adopt a learner-centred approach
1.2.2	must use up-to-date pedagogy
1.2.3	must use appropriate pedagogy

1.2.4	content and pedagogy must be authentic
1.2.5	include anecdotal misunderstandings and consequences
1.2.6	must induce learning
1.2.7	student-created content should be encouraged
1.2.8	must be socially responsible
1.2.9	where possible draw on end-user prior learning and experience
1.2.10	must use up-to-date theory and practice
1.2.11	should draw on tacit beliefs
1.2.12	should draw from empirical and indigenous knowledge
1.2.13	language must be gender-free / language can be gendered
1.2.14	learning activities must be built in
1.2.15	learning activities must recycle new information
2. Student Motivation - Affective Domain :	
2.1 extrinsic motivation	
2.1.1	should encourage further innovation
2.1.2	the OER should be extrinsically rewarding
2.1.3	a badge should be used to reward initial engagement
2.1.4	badges should reward progression through an OER
2.1.5	a badge should be used to reward final completion
2.1.6	completion badges should count towards academic credit
2.1.7	OER should be linked to examinations for credit
2.1.8	language should not be unduly difficult or complex
2.1.9	the active (not passive) mood should be used as far as possible
2.1.10	a user-friendly conversational style should be adopted
2.1.11	readability should be appropriate - and checked
2.1.12	should stimulate extrinsic motivation to learn
2.2 intrinsic motivation	
2.2.1	the OER should be inherently interesting
2.2.2	should be fun
2.2.3	¹ no built-in voice or music - with code separate from content



2.2.4	² music files easily accessible, adaptable for localisation
2.2.5	³ short theme music appropriate to local culture and context
2.2.6	³ theme music should be added at the beginning
2.2.7	white-space and colours should be used effectively
2.2.8	schema activation cues should be included wherever possible
2.2.9	should stimulate learning
2.2.10	should stimulate intrinsic motivation to learn
2.2.11	should immerse the student in the discipline
2.2.12	should positively influence the personality of the end-user
2.2.13	self-assessment feedback should be empathic
2.2.14	feedback should be immediate
2.2.15	feedback should reveal as-yet-unseen complexity
2.2.16	must include the rationale behind the use of any task-work
2.2.17	must include the real-world relevance of any task-work
2.2.18	keep a high ratio of perceived-benefit-to-expended-effort
2.2.19	advanced-level content should include surprising anecdotes
2.2.20	must convey a passion for the discipline
2.2.21	should reveal the discipline through the eyes of the author
3. Student Autonomy - Metacognitive Domain :	
3.1 self-awareness & self-assessment of learning	
3.1.1	self-assessments must be built-in
3.1.2	self-assessment tools should be built-in
3.1.3	self-assessment should be multiple-choice closed response
3.1.4	self-assessment should use concept questions
3.1.5	self-assessment should adopt semi-open-book methods
3.1.6	comprehension tests should be built-in
3.1.7	comments by student end-users should be given anonymously
3.1.8	comments by student end-users should be not anonymous
3.1.9	moderated feedback from end-users should be added
3.1.10	³ external tutoring should be available

3.1.11	² external counselling should be available
3.1.12	³ external accreditation and credit banking should be offered
3.1.13	fosters the skills of learning to learn
3.1.13	a study guide should be included / involved
3.1.14	should support learner independence
3.1.15	should support learner autonomy
3.1.16	should support learner resilience and self-reliance
3.1.17	³ advance organiser must be built in
3.2 external evidence	
3.2.1	comments from employers should be included
3.2.2	end-user behaviour after completion is commendable
3.2.3	outcome is effective and beneficial to end-user and/or community
3.2.4	outcome empowered the end-user
3.2.5	outcome empowered the intermediate-level reuser
3.2.6	outcome engendered a sense of self-worth in the end-user
3.2.7	end-users continued functioning as a community of practice
3.2.8	end-users engaged other OER on their own initiative
3.2.9	intermediate-level reusers continue to use other OER
3.2.10	intermediate-level reusers advocate OER creation and reuse
3.2.11	OER are shown to be cost-effective and sustainable
3.2.12	OER act as a catalyst for further or other developments
3.2.13	new partners and stakeholders join the OER movement
3.2.14	end-users recommend OER to others
3.2.15	new repository initiatives are developed
3.2.16	the completion rate is good
4. Access - Environment Domain :	
4.1 financial cost	
4.1.1	³ the cost should be clearly indicated
4.1.2	² a copyright licence should be attached
4.1.3	² translators and localisation agents can charge



4.1.4	opportunity cost should be given to authors
4.1.5	authors should be able to keep an off-line copy
4.1.6	¹ repositories must offer access free-of-cost to all OER
4.1.7	¹ repositories can charge for access
4.1.8	¹ copyright is determined and correctly expressed
4.1.9	² copyright licence is clearly visible
4.1.10	advertisements should be avoided
4.2 technical accessibility	
4.2.1	² content should be clearly separate from code
4.2.2	² free sourceware should be used at all times
4.2.3	² free sourceware should be recommended to authors
4.2.4	³ alternate fonts and font-sizes should be offered to end-users
4.2.5	³ the format should be suitable to be printed out
4.2.6	³ the format should be suitable for mobile use
4.2.7	³ web-based OER must be usable off-line
4.2.8	OER must be transmissible across platforms
4.2.9	OER must be transmissible across repositories
4.2.10	technically must be easily adaptable
4.2.11	content must be externally reliable
4.2.12	necessary computers and OER terminals are available
4.2.13	technical support is easily available
4.2.14	OER course should be built incorporating no OER components
4.2.15	OER course should be built incorporating some OER components
4.2.16	OER course should be built incorporating only OER components
4.3 cultural and contextual localisation	
4.3.1	¹ new OER should be in an international language
4.3.2	³ old OER should be in a local dialect for end-users
4.3.3	³ horizontal links to enrich content must be built in
4.3.4	must support equality and equity
4.3.5	must be non-discriminatory

4.3.6	must be socially inclusive wherever possible
4.3.7	can be religious but not evangelist
4.3.8	can be political but not biased
4.3.9	must not present a political bias
4.3.10	must be law abiding
4.3.11	must promote social harmony
4.3.12	explicitly labelled if content may be inappropriate
4.3.13	explicitly labelled if localized to a specific culture
4.3.14	should be world-ready (see <i>Glossary</i> for 'world-readiness')
4.4 presentation and multimedia	
4.4.1	multimedia should be used as far as possible
4.4.2	³ multimedia should be limited to two or three types
4.4.3	³ different learning styles must be served
4.4.4	serves aged end-users and those with disabilities
4.4.5	avoids use of 'talking head'
4.4.6	distractions should be avoided
4.4.7	high signal-to-noise ratio should be present
4.4.8	appropriate technology is used
4.5 community	
4.5.1	each repository should registered
4.5.2	each repository should be under an umbrella group
4.5.3	each repository should abide by quality regulations for repositories
4.5.4	OER should point users to community groups
4.5.5	OER should reward an end-user for group participation
4.5.6	communities should be moderated
4.5.7	community participation should be compulsory
5. Packaging - Management Domain :	
5.1 tagging for discoverability	
5.1.1	metadata tags should give format and size
5.1.2	learning pathway vertical links to other OER must be given



5.1.3	² metadata tags should link OER into coherent learning pathways
5.1.4	² repositories should be linked together
5.1.5	³ metadata tags should give expected study duration
5.1.6	² metadata tags should indicate the level of difficulty
5.1.7	² metadata tags should give appropriate end-user age range
5.1.8	³ navigational aids should be built-in
5.1.9	³ institution or brand-name tags should be attached
5.1.10	images must have alternate ALT text
5.1.11	file source author identity should be removed
5.1.12	author identity should be explicitly expressed
5.1.13	metadata tag indicates required prior knowledge and skills
5.1.14	metadata tags suggest other OER to gain prior knowledge and skills
5.1.15	metadata tags suggest intended end-user characteristics
5.1.16	there is appropriate publicity
5.1.17	³ metadata tags should give the intended purpose
5.1.18	³ metadata tags should give the intended benefit to end-user
5.1.19	³ metadata tags should give the relevance and importance
5.2 utility	
5.2.1	must be compact size
5.2.2	easily portable and transmissible
5.2.3	inter-linked into pathways
5.2.4	environmentally 'green'
5.2.5	stand-alone : can be studied by itself
5.2.6	study-time should be limited to within 15 hours per OER
5.2.7	inter-compatibility checks should be done for multiple OER
5.2.8	study work-load must be accurately expressed
5.2.9	feedback on future employability should be included
5.2.10	current localization data must be clearly indicated
5.2.11	suggest intended end-user level (1°, 2°, HE, 3°, NFE, LL, on-the-job)
5.2.12	should give author contact information

5.2.13	easy to access : register, enrol, engage <i>etc</i>
5.2.14	transfer to formal education is available
5.2.15	must be small enough to facilitate adoption in other disciplines
5.3 external validity	
5.3.1	completion rate is measured - and included as metadata tag
5.3.2	a high completion rate is achieved
5.3.3	immediate output is monitored
5.3.4	short-term outcome is monitored
5.3.5	long-term impact is monitored
5.3.6	continuing support is available after OER completion
5.3.7	any reuser can add review as social tag metadata
5.3.8	only end-users who complete the OER can add comment tag
5.3.9	intermediate reusers <i>eg</i> teachers / translators can add comment tag
5.3.10	mechanisms are built in for feedback and quality assessment
5.3.11	easily transmitted to end-user e-portfolio
5.3.12	public acceptance and recognition is actively sought
5.3.13	government support is actively sought

Contact Information:

Participants and Interested Persons may offer comments to the following. Confidentiality and any request for anonymity will be honoured.

Paul Kawachi kawachi@open-ed.net

or

Sanjaya Mishra smishra@col.org

Director, Commonwealth Educational Media Centre for Asia (CEMCA),
13/14, Sarv Priya Vihar, New Delhi - 110 016, India

Telephone : 011-2653 7146

Facsimile : 011-2653 7147



CEMCA and the author Paul Kawachi have licensed this work under the Creative Commons Attribution Share Alike (CC-BY-SA) licence agreement. The full legal code of this copyright contract is available at no cost here at <http://creativecommons.org/licenses/by-sa/3.0/>.

Papers and Presentations

Open Educational Resources: A Perspective on Quality¹

G. Dhanarajan

Wawasan Open University Penang

Let me begin by thanking Prof. Sanjaya Mishra, Director CEMCA and the organization itself for inviting me to participate in this interesting workshop on Open Educational Resources and to speak on matters pertaining to quality in this emerging technological innovation. I recognize the generosity of this invitation since I am aware that Dr. Sanjaya himself has contributed much to the subject of Open Access and Quality through his work both at IGNOU and more recently at UNESCO. In the midst of experts I can but only add the voice of experience in establishing and managing a culture of quality in the two Open Universities that I was privileged to undertake. Though OER is not an education provision but an educational resource provision that is open to all, the principles of quality in the production, distribution and utilization of the resource cannot be totally different from that of good practice in DE or ODL, which also is engaged in the production, distribution, utilization, and support of learning content. I will therefore draw on that experience in the next thirty minutes or so with this conversation. I will make the presentation in 4 parts. These are:

- ***The practice of Quality Assurance in Higher education***
- ***A perspective on Quality***
- ***The meaning of Quality Assurance in the context of Open Educational Resources***
- ***A rethink on Openness***

¹ Address at the opening of the workshop on Developing Quality Guidelines for Open Educational Resources, organized by Commonwealth Educational Media Centre for Asia.



The practice of quality assurance in higher education

In the Asia-Pacific region generally there has been an increase in activity relating to the measurement of Quality in Higher Education. The proliferation of national quality assurance agencies [under a variety of names] is a reflection of this growth. Of the 102 members of the *Asia Pacific Qualification Network* [APQN] about 22 are National Qualification or Accreditation Agencies. Most of them are also members of the *International Networks of Quality Assurance Agencies in Higher Education* [INQAAHE 2007] and they collectively developed a Guideline of Good Practice to ensure quality in institutions of higher learning. This guideline is beginning to influence national protocols for the measurement of quality amongst all 102-member states. The systems following the guidelines are mostly set up to measure the quality of conventional systems and not necessarily Non-Conventional Systems. With the growth of non-conventional forms of provisions in Higher Education, both APQN and INQAAHE are proposing to develop separate guidelines to measure QA of non-conventional systems, in the near future. Until such time the practice of measuring quality of open, on line, virtual and e learning when measured will continue to be benchmarked like all other conventional systems [C. Latcham & Jung, I.S 2009]² Such benchmarks will include teaching, learning, research student support, administration, resource provisions such as finance, libraries, staffing, learning resources, staff student ratios, etc. While some of these have a lot of commonness between both the conventional and distance education systems, many others clearly will have different parameters [e.g. staff: student ratios]. Governments or their agencies vested with the responsibility of monitoring quality and standards in their institutions of higher whether they are conventional or non-conventional in Asia may need to address issues of this nature in a more thoughtful way where quality is not compromised and innovations not inhibited. Open Educational Resources will fall under this category of innovations.

This would mean looking at quality issues around a set of parameters on management, teaching, resources, research, governance and learning outcomes, altogether some eleven areas [see Box 1]. This approach has the advantage of ensuring parity between both systems in terms of processes, finance, governance and infrastructural requirement such as space, IT and quality of outputs [through conversations with different stakeholders]. The disadvantages are the obvious sidelining of serious differences in the vision, mission, entry behavior of students, the rigour and team effort in designing curriculum and transforming it into learning materials, the flexible requirements for completion of programmes, effort in pedagogical innovations and a whole range of value adding elements not found in conventional systems. This has been a cause for concern, generally.

² Latchem, C. and I. Jung 2009. *Distance and Blended Learning in Asia*. New York: Routledge, Taylor and Francis. pp. 7-14

Box No 1: List of issues subscribed by QA agencies in the region

- The Vision and Mission of the Institution
- The design and transformation of curriculum into self learning materials
- Assessment of learners
- Learner support systems
- Academic Staff – quality, recruitment and professional development
- Educational resources – IT services, libraries
- Program monitoring and evaluation,
- Governance and Leadership
- Continuous quality improvement
- Financing

A perspective on quality

The measurement of quality as it is currently applied to higher education generally and distance education particularly is contentious. There are those who argue that we are still not very explicit in establishing unambiguous parameters for the measurement of quality, in higher education, when it comes to learning experience or learning outcomes. Some of the uncertainties relate to criteria and standards applied to measurements, the purpose of these measurements and sometimes even the legitimacy of these measurements. [Kis, 2005]³. A further question on measurements of quality relate to the kinds of paradigms applied. Australian researcher D. Kelly [2003]⁴ argues that there are two paradigms to consider. The first is the ‘Instruction Paradigm’, and the second the ‘learning Paradigm’. These are not mutually exclusive to each other but they require a separation for a fair measurement. The first paradigm is ‘used by most higher education institutions and the measurement of success is often based on the quality of entering students, the number of publications completed by academics, number of books in the library and the availability of other resources such as staff, laboratory benches, etc. The ‘learning paradigm’ on the other hand emphasizes on learning rather than instruction. In the second case, student learning and success outcomes, learning growth and the quality of exiting students, measure success. The other more important difference is that in the ‘Instruction Paradigm’ the time of learning is held constant and learning varies. In the ‘Learning Paradigm’, the learning is held constant and the time varies, recognizing that student learns at different rates. Open Distance Learning Universities, which respond to adults and others, who have been marginalized from mainstream higher education will have to be looked at in the context of the ‘Learning Paradigm’ rather than the ‘Instruction Paradigm’. This by our defined purpose of OER

³ Kis, V. [2005]. *Quality Assurance in Tertiary Education: Current Practices in OECD Countries and a Literature Review on Potential Effects. A contribution to the OECD Thematic Review of Tertiary Education*. Available: www.oecd.org/edu/tertiary/review

⁴ Kelly, D.K. 2003. *Outcomes Approach to Higher Education Quality*. NITL News: National Institute of Transport and Logistics. Spring 2003



should also include it. Table 1 below illustrates some new basis of practice and measurement.

Table 1: Old Vs. New Paradigms for Accreditation and Quality Assurance

Old Paradigm	New Paradigm
Teacher/Institution Centered	Learner Centered
Centralized	Local
Hegemonistic	Differential
One Size Fits All	Tailored
Closed	Open
Us vs Them	Collaborative
Quantitative	Qualitative
Prescriptive	Flexible
Time as Constant/ Learning as Variable	Learning as Contact/Time as Variable
Teacher Credentials	Teacher Skills
Consolidated Experience	Aggregated Experience
Regional/National	International/Global
Static	Dynamic
Single Delivery Model	Distributed Delivery Model
Process	Outcomes
Infrastructure	Services

Quality in the context of Open Educational Resources

In a world populated by more than 1.5 Billion Internet users seeking to establish the quality of openly available educational resources, accessible and useable by any or all, raises more questions than the availability of answers. Cyberworld is freedom unlimited. Framing quality in such a world will be at the least, challenging. That in fact is the challenge for those taking part in this workshop. Quality in the context of OER can be about many things. It could be about accuracy of content, effectiveness or ease of use, branding, peer review, ratings by users, validation, self-evaluation, shareability, timeliness, usability, accessibility, currentness of content, licensing arrangements and others. The task becomes a little less challenging if it is contextualized in one of three aspects. These are the:

i. Quality in the production of OER:

The COL published a set of guidelines relating to OER in 2011⁵. Included in the guidelines was a simple set of rules for the production of OER [see box]. These are useful.

⁵ Commonwealth of Learning and UNESCO [2011]: Guidelines for Open Educational Resources [OER] in Higher Education. Accessed on 06 March 2013 from http://www.col.org/PublicationDocuments/Guidelines_OER_HE.pdf.

Box 2: The COL-UNESCO guideline for producers of OER

1. Include labeling to indicate what learning needs the resource addresses;
2. Allow the creation of variations and enhancements through open licenses;
3. Support flexible styling (e.g., enlarging the font, enhancing the colour contrast and adjusting the layout for students with vision impairments or mobile devices);
4. Support keyboard control of functions and navigation (for students who cannot use or do not have access to a mouse or pointing device);
5. Provide audio or text descriptions of non-text information presented in videos, graphics or images (for students who have visual constraints or who have limited displays);
6. Provide text captions of information presented in audio format (for students who have hearing constraints or lack audio interfaces);
7. Clearly separate text that can be read in the interface from underlying code or scripting (to enable translation);
8. Use open formats wherever possible to make it easier for alternative access systems and devices to display and control the resource; and
9. Adhere to international standards of interoperability so that OER can be used on a wide variety of devices and applications.

Similarly in a report published by JISC⁶ and periodically revised attention was drawn to the importance of trust in establishing the quality of an OER. The trust of the community in the creator's expertise determined the value placed on the content made available. This is further buttressed by the reputation of the, institution, the standards of technical production, accessibility as well as the fitness for purpose. The two views are not contradictory but what is clear is that the value of an OER to a potential user is multi-dimensional and, in higher education at least, the reputation of the creator of the OER adds enormous weight to the OER. Wayne Mackintosh⁷ considers that in education quality is a more a process than a product that in the case of OER the product that finds itself on the web has been put there by the creator who in placing the content on the web with its OER label is permitting further iteration. The process is continuous cycles of iterations and with each an improvement of the quality of content and therefore it begets recognition.

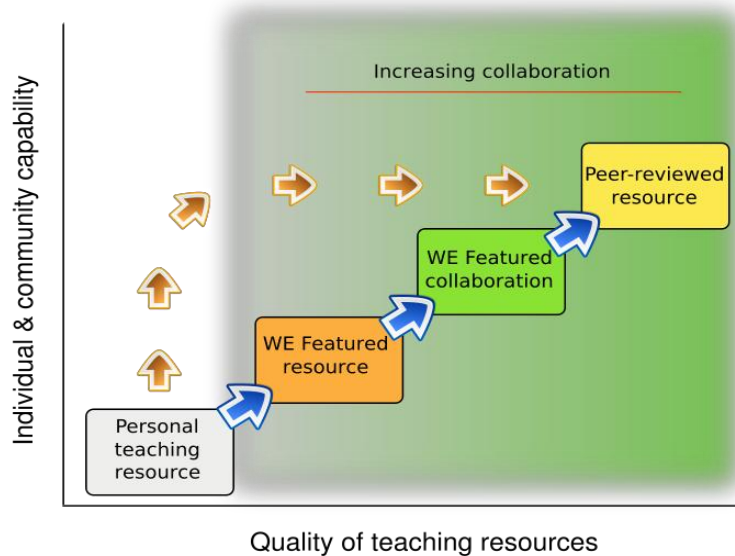
⁶ JISC [accessed on 06 March, 2013] from:

<https://openeducationalresources.pbworks.com/w/page/24838164/Quality%20considerations>

⁷ Mackintosh, W. in Wikieducator extracted from

http://wikieducator.org/WikiEducator:Quality_Assurance_Framework/Contribution_Levels

Fig.1. A tiered quality system as described by W. Mackintosh [2009]



ii. Quality from the perspective of users:

In another context before the era of the OER, Dhanarajan and Timmers in 1997⁸ examined the issues which at the time were considered most critical for the successful importing and adopting of courses from second and third party sources. They identified ten issues of which the following has a resonance to those wanting to use OER either in an institutional or individual basis. These are: *curriculum/content, instructional design, academic standards, technical considerations, licensing arrangements and assessment/examination strategies*. These are critical elements on the appropriateness of OER use and very much relate to the quality of usage. While at the individual level the stringency of requirement may not be absolute at the institutional level the quality of using OER to deliver courses requires absolute stringency. In 2000 the Institute of Higher Education Policy published a set of guidelines for online teaching⁹. The institute made seven recommendations, which it considered essential for quality internet-based education of which five have a value in the context of this workshop. They are:

- **Institutional support benchmarks:** such as reliable and accessible technology platforms
- **Course development benchmarks:** such as minimum standards for course design, development and delivery and the learning outcome determine the technology being used to access course content;

⁸ Dhanarajan, G and S. Timmers [1992]: *Transfer and adaptation of self-instructional materials*. *Open Learning* 11/1:31-40

⁹ The Institute for Higher Education Policy [2000]: *Quality on the Line*. Washington, USA.

periodic review and renewal of content as well as content that is interactive and requires students to engage themselves in analysis, synthesis and evaluation.

- **Teaching/Learning Benchmarks:** such as opportunities for students to interact with faculty and tutors, feedback mechanisms on assignments and advisories to students on methods of research etc.
- **Course structure benchmarks:** including links to supplementary materials, course information on course objectives, concepts, ideas and learning outcomes.
- **Student support benchmarks:** including information about programmes, admission criteria, examination requirements, technical assistance to the technologies.

iii. Quality from an institutional context

Institutions whether they are education providers or accrediting agencies of academic provisions invariably will apply a different lens from those of advocates, producers or consumers of OER. Their views will be shaped by both their traditions of what higher education is and what it should be, to serve its expected roles and responsibilities as a social service to citizens. Both will not only consider the academic content and its fit to the overall curriculum of a programme or course but also consider how well it is situated within a course in terms of accuracy, assessment, value add, context and of cost, pedagogy and learning outcomes. There is yet no explicit evidence available on views of accrediting agencies or institutional administration on the subject. This may reflect one or both of two things, in Asia. The first is that OER in the educational milieu has not made its presence felt despite the efforts of UNESCO, COL and the hundreds of scholars. The second is that independent, self-directed learning amongst Asia's 2 billion people is not at the level that government and their policy makers are forced to take notice of OER. Perhaps this will change just as the Internet and mobile phones have forced them to reconsider policies relating to access to information, cost of communication, freedoms and liberties of individuals.

Rethinking Openness

The main and attractive feature about OER is the notion that the openness 'removes all restrictions placed in accessing learning resources from copyright regulations to financial constraints'. In the context of our workshop and the practice of education as we know it in Asia, the literature does not adequately address the consequence of open access in terms of educational practice. True openness should mean not only the removal of restrictions on the resources but also more importantly on the liberalizing practices and policies regulating education. Even with almost fifty years of exemplar development of Open Distance Education, as I remarked earlier, expectations of and conditions imposed on providers of education by governments, accrediting agencies and institutional



administrators, has not brought about the total liberalization that advocates of OER imply.

Jeremy Knox [2013]¹⁰, a Ph.D. student at the School of Education, University of Edinburgh, in one of his blogs highlighted five observations of the open educational resources movement. I would like to leave you with those five statements as you ponder quality along with Sanjaya Mishra, Paul Kawachi Mohan Menon and others over the next few days.

- i. *“Much of the OER literature focuses on the removal of perceived barriers to access, and thus neglects adequately to consider how self-directed learning might actually take place in the absence of the educational organization.*
- ii. *OER literature often promotes a paradoxical claim of institutional circumvention alongside an explicit endorsement of the accreditation systems and prestige of established university structures*
- iii. *This endorsement of the institution is problematically combined with a neglect to address the role of pedagogy within the university and an exaggerated and untheorised promotion of learner-centred education*
- iv. *The OER movement tends to make presumptions about the ability of human beings to self-direct in the processes of learning, often appearing to assume the innate qualities of autonomy and instrumental rationality*
- v. *The use of OER can be perceived, not as a more rational improvement to education, or a more humane and naturalized form of learning, but as a further refinement in the exercise of power.”*

OER is an innovation for good, its value to education, however for now, has to be tampered with the reality of educational practice and culture in our part of the world and not just by sheer exuberance of the newly converted.

¹⁰ Accessed on 10 March, 2013 from <http://jeremyknox.net/2012/03/28/five-critiques-of-the-open-educational-resources-movement-oer-highered-elearning-edtech/>

Quality of OERs

Abtar Kaur, PhD

Professor, Open University Malaysia

Kuala Lumpur, Malaysia

www.oum.edu.my

<http://oer.oum.edu.my>

1.0 Introduction

Quality in teaching and learning has always attracted the attention of policy makers, educators, parents and students. It is the bedrock of a quality output-the student and it marks the effectiveness and efficiency of the provider. The quality of teaching and learning is constantly questioned due to many reasons, some of which could be skills and knowledge of the teaching and learning process, the competency of the educator in the content knowledge, the passion and attitude of the educator vis-à-vis the expectations of students more so in this digital age. As a teacher and also an elearning educator, i find the sharing of educational resources or OERs freely (as per CC License) a right move towards democratization of education. However there seems to be some concerns as per the quality of the OERs. Rightly so. After all the whole idea of the OERs apart from “sharing resources freely and making an institutional mark” is also to ensure we overcome the constantly nudging issue of ineffective learning. Not too long ago, sometime in the mid 1990s, I shared a wish with my teacher trainees, i.e. I said “I wished there was a way to get the world’s best teachers, “can” them, and “share” them with students throughout the world”. Now that OERs and MOOCs have been created, it is important for a body to evaluate the effectiveness of these OERs and CEMCA’s efforts are applauded. This short paper will first look at some crucial definitions, followed by a review of available efforts on quality of OERs and end with some case studies and suggestions.

1.1 Definitions

The following section will provide definitions to 2 concepts: OERs and Quality.



OERs

OECD: “digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research” (2007). The OECD has categorized the digitized materials into 3:

1. Learning Content: Complete courses (probably in both/either HTML and PDF), learning objects, courseware and journal articles.
2. Tools: Software that will support the development, use, reuse and delivery of learning content
3. Implementation resources: IP licenses, etc (OECD, 2007)

Hewlett Website: “OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge”

Further according to the Hewlett website: “Open Educational Resources (OER) are high-quality, openly licensed, online educational materials that offer an extraordinary opportunity for people everywhere to share, use, and reuse knowledge. They also demonstrate great potential as a mechanism for instructional innovation as networks of teachers and learners share best practices”

Apparently since 2002, the Hewlett Foundation has worked with OER grantees to improve education globally by making high-quality academic materials openly available on the Internet. The Education Program continues to work toward establishing a self-sustaining and adaptive global OER ecosystem and demonstrating its potential to improve teaching and learning.

OER Commons: OERs are teaching and learning resources that are **freely** available **online** for everyone to use and examples include complete curriculum, lecture notes and accompanying resources, modules etc. Creative Commons (2002) have an almost similar meaning but add that these materials have been released under an open license that permits their free use and re-purposing.

As stated by the Achieve website, “there are literally millions of OERs currently available on the Internet”. But what differentiate them from one another? To further tweak the thinking of OER enthusiast, the following question is posed “how can educators determine whether the resources are of high quality”

1.1.1 Quality

Let us examine the meaning of quality as proposed by quality gurus.

Juran: “fitness for intended use”

Demning: “meeting or exceeding customer expectations”

Crosby: “quality is conformance to requirements”

The above mainly apply to management sector. How does one evaluate whether a product is of quality or not in the education sector. More so now that the product has become an important resource, uploaded somewhere and is tangible. At least the following can be said if an educational resource/product is of quality or not:

1. The product demonstrates the “producer’s” profound knowledge in the subject matter.
2. The product demonstrates the “producer’s” profound knowledge and skills in instructional design
3. The content is “humanized” in a technology environment
4. The technology issues are considered in producing and uploading the product

Years ago, I remembered reading somewhere and I constantly share this with my students “if it is not as good as TV, don’t showcase your product”. So what may be acceptable in the classroom is subjected to a totally different ball-game when uploaded into a digital resource. For a video, one’s quality of voice (the 4 Ps), presentation style, spoken nuances, body-language etc are truly important.

So a question to ask here is who produces these OERs and what guidelines have been used to produce them to ensure a certain standard is achieved before sharing freely with the rest of the world. Given the fact that the OERs are freely available, does it mean that anything and everything an institution/individual can offer goes in? A cursory evaluation of about 15 OER sites showed that very few demonstrated some kind of quality learning materials, which follow principles of instructional and technology design.

1.2 Literature on Quality of OER

Achieve and the *Institute for the Study of Knowledge Management in Education* (ISKME) launched a tool for users to rate the quality of OERs in the form of rubrics (see *Appendix 1*).

The OTTER team proposed a quality assessment tool which is “progressive and cumulative” as opposed to a single set of criteria applied at the end of the process. (See *Appendix 2*)

Briefly, these 2 sites have the following criteria

Achieve	OTTER/CORRE (selected criteria)
Rubric I. Degree of Alignment to Standards This can be further clarified in terms of what is “standard” and more specific examples can be given	Content “Has been used in specific modules” “has cleared initial screening ‘as useful educational materials’



<p>Rubric II. Quality of Explanation of the Subject Matter</p> <p>Like Rubric 1, this needs to be further clarified via specific example. And it is not immediately clear what is meant by this: <i>The object does not need to be augmented with additional explanation or materials.</i></p>	<p>Openness</p> <p>“Legally clean and clear to be moved to public domain” [usability and accessibility issues]</p>
<p>Rubric III. Utility of Materials Designed to Support Teaching</p>	<p>Reuse</p> <p>[mainly about the content]</p> <p>Example: “Accurate content” “Visually engaging”</p>
<p>Rubric IV. Quality of Assessment</p>	<p>Repurpose</p> <p>Easy to: Download, manipulate, integrate</p>
<p>Rubric V. Quality of Technological Interactivity</p>	<p>Evidence trackable</p>
<p>Rubric VI. Quality of Instructional and Practice Exercises</p>	
<p>Rubric VII. Opportunities for Deeper Learning</p>	
<p>Rubric VIII. Assurance of Accessibility</p>	

CORRE: Mainly technical oriented
Achieve: More teaching and learning oriented.

1.3 Evaluation of OER Sites

1.3.1 University of Nottingham

At the request of the University of Nottingham, nine members of the OER Africa team briefly reviewed the UNow website – <http://unow.nottingham.ac.uk> – using the survey feedback form provided (Appendix 3). The survey looked at impressions, clarity, audience, usability, accessibility, clarity, amount of information, searching/browsing of resources, range and types of materials available, accessing the materials, formats, suggested improvements and other websites. It is interesting to note that in the section on “suggested improvements” there was no mention of quality of teaching and learning materials.

1.3.2 Open University UK


The writer, in evaluating at least 15 OER institutional sites, found that the following course had incorporated quality measures in the OER (see Figure 1)
<http://www.open.edu/openlearn/education/creating-open-educational-resources/content-section-o>

By: The Open University
 Duration: 15 hours Published on: Monday 22nd August 2011
 Level: Introductory Posted under: Education

Comments (0) Twitter Share Share Print all pages Print

Contents

- Introduction
- Learning outcomes
- Quiz
- 1 What is open learning and why OERs?
- 2 What makes a good OER?
- 3 Finding and evaluating OERs
- 4 Copyright and OER
- 5 The pedagogy of open learning
- 6 Tools for creating an OER
- 7 Making the case for OER
- References
- Acknowledgements




Creating open educational resources

Introduction

This unit introduces you to the concepts of:

- open educational resources (OERs)
- issues involved in the creation, use and re-use, and pedagogy of OERs
- a range of tools and media to support you in developing your own teaching and learning practices.

It will provide you with the skills and confidence to engage in further OER work as both creator and user.



→ Next: **Learning outcomes**

Figure 1: Screen Capture of Open Learn OER Site

Why is this considered a quality OER? The following are some reasons:

1. Learning outcomes are clearly stated.
2. A pre-test is given in the manner of a Quiz. The Quiz enables a learner to test his/her prior knowledge on the subject matter. The Quiz is well designed as there is immediate feedback and the learner can ascertain the errors made, further learning happens at the mastery level.
3. A variety of resources are given: videos, text-based and power-point slides. This meets the different learning styles exhibited by different learners.
4. There is practice and feedback of concepts presented.
5. Interface design is intuitive.

However, there are some suggestions on how this can further be improved:

1. Screen design- it is rather cluttered with too much unnecessary information.
2. This may result in cognitive overload.
3. This may distract the learner.
4. The videos can be made more audible and focused.
5. The use of screen-shots in some videos is not advisable.



1.4 Suggestions

A quality framework for OER could consider a number of factors. However two very important factors are instructional design and technology design.

1.4.1 Instructional Design

In ensuring effectiveness of learning in an online environment, it is important that educators use as many instructionally sound principles of learning as possible. The most crucial aspect of designing for online learning is “engagement” and “relevance” as these two factors can draw students into the virtual classroom. The next logical question is “how do we do that”? Simply stated, we use time tested principles of learning and adjust them to an online environment. As stated by authorities, there are as many models of instructional design as there are practitioners. So how does someone who is not a practitioner understand this. One simple way is to view learning as happening in 3 phases: pre-learning, learning and post-learning. In an online learning environment, there are many pre-learning activities that can be done to get connected to learners and get them thinking about events that are going to happen. And the beauty is, we have the tools and technology to do this. Some enriching pre-learning activities can include an online pre-test (quiz), giving students a trigger like a video, an audio, or a simple simulation or a story, etc for the students to mull over and get them prepared. During the learning phase, a teacher has to think about the most effective strategies from amongst others, such as discussion, case study, pop-quizzes, demonstrations, debates, etc. For the strategies, identified, an appropriate learning content is selected and designed vis-à-vis the learning resources (OERs). The beauty of the WWW is that, designing has now become easier due to availability of ample OERs. Rarely does one have to re-create the ‘wheel’ as practically there is an OER somewhere in the WWW which we can adopt and adapt. Once the strategies and resources are identified, we can go on to determine the assessment strategies. Instructional design goes hand-in-hand with technology design, more so in an online environment, and if technology is not used appropriately, we are heading for failure.

1.4.2 Technology Design

Kahle (2008) proposed 5 design principles crucial for educational technology which includes design for access, agency, ownership, participation and ownership. Says Kahle, “The intent of this framework is not to be prescriptive or to provide specific guidelines for software development, but to increase awareness of a few key ideas that greatly influence the openness, flexibility, and value of technology for education (p. 32).

Design for Access

Kahle (2008) explains design for access succinctly in the following “Design for access in this context not only enables the acquisition of open resources but effective thinking, learning, and doing with them. Beyond simply addressing technical and economic obstacles to technology adoption, design for access challenges us to

recognize, accommodate and design with individual cognitive and physical differences in mind” (p.33). Basically what Kahle is saying is apart from designing for the last mile, we must seriously start thinking of designing for individual differences, something which we have never been able to do in large face-to-face classrooms.

Design for Agency

“Designing for agency highlights design’s influential role in determining the degree of user action and control over these open educational resources. This focus on agency compels developers of open technologies to consider the broader social and political context within which a technology will likely be used and how design decisions ultimately impact that environment. Here, openness of technology is measured by the degree to which it empowers users to take action, making technology their own, rather than imposing its own foreign and inflexible requirements and constraints” (p.35). In this respect, educators can be rest assured that for a start, text-based content can be easily translated using the numerous translation softwares from one language to another. With the availability of these freely available softwares, learners, designers and subject matter experts can easily translate materials to accommodate themselves.

Design for ownership

“The ability to literally own a technology or collection of resources is almost a given with open source software and content. This approach anticipates that any given product may become part of a future application or resource and, in so doing, will become transformed into something quite different” (p.38). Like the above example on translation, it is heartening to see more and more users being able to “own” software to do what is necessary in terms of creating and re-creating available resources.

Design for Participation

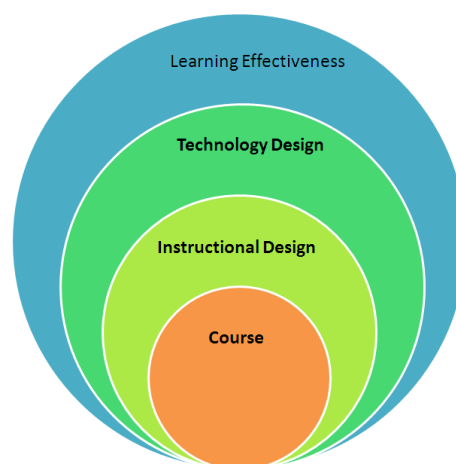
Kahle (2008) talks about 2 types of participation here. One, to co-design and develop the OER, the other participation in learning as aptly stated below:

“...essential to the success of open education projects from the perspective of participation is the establishment of representative communities capable of informing the design process, designs which encourage contributions, and an understanding of the importance of active participation in learning” p. 39

Design for Experience

Design for experience recognizes that all participants, particularly busy educators and students, quickly form opinions as to what resources are interesting, helpful, and worth their investment of time. Is the experience of using the resource enjoyable and satisfying?” Kahle, p. 42

In conclusion, quality **learning** incorporating OERs can be represented as such:





1.5 Conclusion

The quality of OERs can only be determined by a more “qualified” set of guidelines which are endorsed and verified by experts in this area.

References

- Creative Commons. Undated. What is OER?. Retrieved 15 Sept 2012. http://wiki.creativecommons.org/What_is_OER%3F
- Kahle, D (2008). Designing open educational technology. In Iiyoshi, T and Vijay Kumar, M.S. (2008). *Opening up education: the collective advancement of education through open technology, open content and open knowledge* .pp 27-45, MIT Press.
- 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
- <http://www.hewlett.org/programs/education-program/open-educational-reources>
- Helping Educators Determine the Quality of Open Education Resources.
- Retrieved 20 February 2013 at: <http://www.achieve.org/helping-educators-determine-quality-open-education-resources>
- <http://www.oerafrica.org/>
- Lane, A (2010). Designing for innovation around OER. *Journal of Interactive Media in Education*. Retrieved 15 September at <http://jime.open.ac.uk/2010/02>
- OER Commons <http://www.oercommons.org/> . Retrieved 15 September 2012.
- Olcott, D (2012). OER perspectives: emerging issues for universities. *Distance Education*. 33, 2, pp 283 - 290.
- Organisation for Economic Co-operation and Development (OECD). (2007). *Giving Knowledge for Free: The Emergence of Open Educational Resources*. Paris: Centre for Educational Research and Innovation, OECD. p. 10.

Appendix 1:

Rubrics Education Resource (OER) Objects

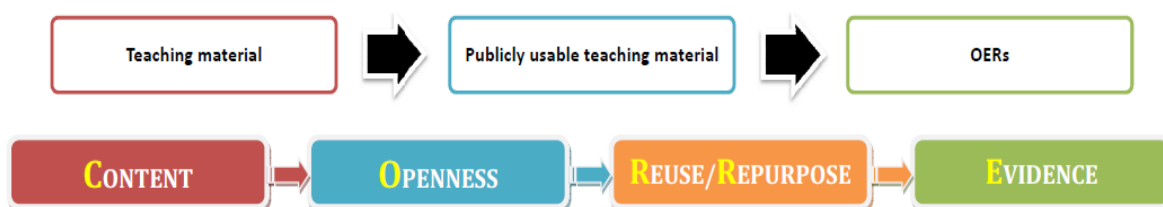
<http://www.achieve.org/files/AchieveOERRubrics.pdf> (or see attached file)

for Evaluating Open

Appendix 2:

OTTER/CORRE Criteria to Evaluate Quality of OERs

<https://openeducationalresources.pbworks.com/w/page/24838164/Quality-considerations>



→ → → C U M U L A T I V E C R I T E R I A → → →				
CONTENT	OPENNESS	REUSE	REPURPOSE	EVIDENCE
<ul style="list-style-type: none"> Available in electronic format Can be largely understood by a non-specialist Can be used 'as is' Has been used in specific modules Has cleared initial screening as 'useful educational material' Self-contained Decoupled (i.e. with minimal or no binding to other components) No gaps No major editing needed Level(s) the material is designed for are clear Does not contain institution-specific names or jargon 	<ul style="list-style-type: none"> Legally clean and clear to be moved to the public domain Meets usability and accessibility standards Specific skills needed by the user are spelled out (e.g. how to set up a group wiki or edit an HTML page) 	<ul style="list-style-type: none"> Accurate content Benefit to the learner is clear and given upfront Structured in manageable 'chunks' Does not require additional support for reuse Contains appropriate and relevant metadata Tagged for easy searchability Available in different formats for use 'as is' Low-tech options available for immediate use, e.g. a printed handout Estimated amount of time required for completion clearly shown Clear, user-friendly interface Visually engaging Includes an indicative pedagogical wrap-around (i.e. it works well if used in this way) Validated by partners and students Uploaded to relevant repository for internal testing 	<ul style="list-style-type: none"> Easy to download in different formats Technically easy to manipulate Designed for tweaking Easy to integrate into other materials 	<ul style="list-style-type: none"> Trackable Up-to-date Validated by users Users can submit feedback Users can contribute improved or context-sensitive version



Appendix 3:

U-Now Feedback Survey Form

The Site	Rating	Comments
First Impressions What was your immediate first reaction to the web site?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ←Very good ----- --- Very Bad→	
Clarity of Purpose How obvious is the purpose of the site?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ←Very clear ----- ---- Unclear→	
Audience Who do you think would use the site and its resources? Is our audience primarily tutors or students?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ←Tutors ----- ---- Students→	
Usability Was the site easy to navigate and use?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ←Easy ----- --- Difficult→	
Accessibility Was the site accessible to you? Could any improvements be made, for example, if English is not your first language?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ←Very good ----- --- Very Bad→	
Clarity of Information The information on the web site is clear?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ←Very clear ----- ---- Unclear→	
Amount of Information Does the web site contain too much or too little information?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ←Too much ----- --- Too little→	
Searching / Browsing resources Could you easily browse the resources available?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ←Easy ----- ---- Difficult→	
Range of materials available Does the site offer a good range of materials?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ←Good range ----- limited range→	

The Site	Rating	Comments												
Types of materials available Are the types of material offered appropriate for re-use?	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 25%; height: 20px;"></td> <td style="width: 25%; height: 20px;"></td> <td style="width: 25%; height: 20px;"></td> <td style="width: 25%; height: 20px;"></td> </tr> <tr> <td colspan="4">←Very good -----</td> </tr> <tr> <td colspan="4">--- Very Bad→</td> </tr> </table>					←Very good -----				--- Very Bad→				
←Very good -----														
--- Very Bad→														
Accessing the materials Could you easily download and reuse the materials?	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 25%; height: 20px;"></td> <td style="width: 25%; height: 20px;"></td> <td style="width: 25%; height: 20px;"></td> <td style="width: 25%; height: 20px;"></td> </tr> <tr> <td colspan="4">←Easy -----</td> </tr> <tr> <td colspan="4">--- Difficult→</td> </tr> </table>					←Easy -----				--- Difficult→				
←Easy -----														
--- Difficult→														
Formats Are the materials presented in formats you can use? What sort of formats are you looking for?	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 25%; height: 20px;"></td> <td style="width: 25%; height: 20px;"></td> <td style="width: 25%; height: 20px;"></td> <td style="width: 25%; height: 20px;"></td> </tr> <tr> <td colspan="4">←Appropriate -----Not</td> </tr> <tr> <td colspan="4">appropriate→</td> </tr> </table>					←Appropriate -----Not				appropriate→				
←Appropriate -----Not														
appropriate→														
Suggested Improvements Please tell us any other comments you might have.														
Other Websites If you are aware of any similar websites that you like, tell us about them, and what you like about them. Where else do you look for OER?														



Quality assurance in OER based courseware: A tripartite review mechanism

Dr. Pradeep Kumar Misra

Associate Professor (Educational Technology)

Department of B.Ed./M.Ed. , M.J.P. Rohilkhand University

Bareilly (U.P.)-243006

Background

OER based courseware are slowly becoming an important part of academic world, and there are many reasons behind it, as suggested by White (2008, p.7), “The influence of the open source movement continues to make an impact on education because of the reduced costs of installation and maintenance of a compendium of office productivity applications and access to free content and services specifically dedicated to education.” OER initiatives, particularly those based in institutions, encourage transparency and can stimulate more quality control and competition to benefit individual learners as well as taxpayers generally. Furthermore, the movement seems to grow both top-down and bottom-up; new projects are started at institutional level and individual teachers and researchers use and produce OER on their own initiative (OECD, 2007, p.118). The importance of OER stems from the fact that these resources are seen as fundamental to the knowledge society and economy (Geser, 2012).

The number of OER based courseware is increasing rapidly as noted by OECD (2007, p.12), “With thousands of (open courseware) courses from internationally reputed higher education institutions available for free, teachers will need to consider that students compare their curriculum with others.” In the last 10 years, the number of OER based courseware, as well as their availability and distribution via learning object repositories (LORs), has rapidly increased. There has been a general awakening in the e-learning community regarding OER (Downes, 2007). Tzikopoulos, Manouselis and Vuorikari (2007) observe that more OER repositories are built, and metadata of existing repositories are harvested by federated

repositories to improve access to high numbers of OER. There are literally millions of open education resources currently available on the Internet. But what differentiates them from one another? How can educators determine whether the resources are high quality? (Achieve, 2012). These questions more or less raise an increasing need for quality assurance in OER based courseware.

OER based courseware: Quality assurance issues and initiatives

Question of quality is more or less associated with process and purpose of developing OER based courseware. The irony is that much is not known about who is actually producing and developing OER, as observed by Hylén (2009, p.131), “Of course, institution-based initiatives, like the OCW programmes at different universities, use their own staff to produce their material; and some of them, such as MIT, try to continuously evaluate who their users are. But, as a whole, very little is known about the users and producers.” Currently, the majority of OER development is undertaken on a project basis, and often with donor support (D’Antoni and Savage, 2009). Present trends reveal that a number of people from different walks of life are designing and developing OER based courseware. In other side, people across the countries having different educational backgrounds are using OER based courseware to fulfill different educational needs. This situation leads us to visualize that whether developed coursewares are able to fulfill the educational needs of varied group off learners. In answer, one can say that only quality rich courseware will pass this test.

Before delving further on this issue, it will be beneficial to understand the meaning of quality in context of OER based courseware. Quality can be defined as ‘...appropriately meeting the stakeholders' objectives and needs which is the result of a transparent, participatory negotiation process within an organization’ (Pawlowski, 2007). Quality is not an objective measure but in particular a perceived value for stakeholders and their context. It is difficult to specify precisely what 'quality' means in the context of OER, where accessibility and availability are at least as important as the production values they embody. Quality can be applied in both a technical and pedagogical sense - and both are relevant. However, the issue remains that the quality of learning resources is usually determined by using the lenses of: accuracy, reputation of author/institution, standard of technical production, accessibility, and fitness for purpose (McGill, 2011).

Regarding the process of quality assurance, Santally (2011) observes, “Quality is a non-referential concept and quality assurance techniques that are applicable in behaviorist learning environments are not compatible in socio-constructivist ones. The quality framework that can be applied depends on the learning design approach to be adopted. Quality assurance needs to be an ongoing and iterative activity and student feedback on their own learning (problems encountered, things that were easily understood, communication problems and other related issues) contribute towards making them better learners and develop the required competencies.” While explaining about the emergent system of quality assurance, WikiEducator (2009) suggests, "In education, quality is more about the process than a product. Most open



developments start as a first draft -- the expression of an idea. Through repeated iterations and refinements, and collaboration from the [community] the quality of individual projects improve over time."

Considering the importance of quality insurance in OER based courseware, efforts are taking place in different parts of the world. For example, Achieve and the Institute for the Study of Knowledge Management in Education (ISKME) launched a new tool for users to rate the quality of open education resources. The tool allows educators to rate the quality of teaching and student learning resources, align resources to the Common Core State Standards (CCSS), and evaluate the extent to which the individual resources align to specific standards. The tool allows users to apply seven rubrics — available online at www.achieve.org/oer-rubrics to evaluate different dimensions of quality (Achieve, 2012). The release of this tool comes after the U.S. Department of Education's announcement of the Learning Registry initiative. The Learning Registry is a joint effort between the federal government, nonprofit agencies, and private companies to create a permanent network of digital learning resource providers, and will provide a means of sharing rating data across different websites (Achieve, 2012).

While, initiatives such as OER Africa (2013) state that it is not the role of any one organization to perform quality assurance (QA) on OERs. Instead, they indicate that QA will occur as a result of: self-assessment (individuals and institutions release resources of highest quality possible), internal QA processes (institutions to QA their own resources before release), rating systems (community-driven QA through ratings and comments within OER release platform), and individual review (comments and suggestions made by individuals and institutions). A look on these debates and initiatives establish two things. First, efforts are taking place at different levels to ensure quality in OER based courseware. Second, these initiatives are mainly context and situation specific and cannot be applied for vast majority of OER based courseware developed by different people from different institutions for different purposes. The situation demands that we must evolve a simple mechanism for quality assurance in OER based courseware.

Quality assurance in OER based courseware: A review mechanism

The issue of quality assurance in OER based courseware raises four major questions, who will be involved with quality assurance, who will be the potential reviewers, how they will review the courseware, and what will be the review mechanism. Let us try to answer these questions one by one. There are mainly three parties involved with quality assurance in OER based courseware- developers, peers, and users. The role of all these are crucial to assure the quality of OER based courseware. Quality of OER based courseware mainly lies in the hands of developers. While, users are the real beneficiary and peers are the vital link between developers, courseware and users. Therefore, it seems obvious that the same group will don the responsibility to review OER based courseware for quality assurance purposes. The answers of remaining

two questions are difficult to give. The reason is that there is hardly any fixed criteria to review the OER based courseware, and there is hardly any established mechanism to review the OER based courseware.

Therefore, it seems justified that we must try to evolve a comprehensive review mechanism for quality assurance in OER based courseware. There are four major aspects of OER based courseware - content, pedagogy, presentation, and publication. The quality of any courseware more or less depends on these aspects. Therefore, those who are supposed to review the courseware have to take care of all these aspects. Considering this, a tripartite review mechanism is proposed. This mechanism details about review criteria for all the three parties, how to conduct the review, and how to publish review results for benefit of courseware developers and users. The proposed mechanism is easy to understand and applicable for quality assurance measures. As we already discussed, there are three main reviewers for OER based courseware-developers, peers, and users. All these are required to play an active role in this review mechanism. The proposed review mechanism offers detailed guidelines specifically for developers, peers and users to evaluate and review the available courseware.

(A) Review guidelines for developers

Developers are instrumental for maintaining the quality of OER based courseware. They are supposed to carry out two vital responsibilities- to develop the courseware as per the learning need of learners, and review the courseware to ensure quality. This mechanism details about a number of review criteria for benefit of developers. These review criteria are given in preceding table:

Review Criteria	Fully met	Partially met	Not met
Target users visualized and specified Learning needs of targeted users customized Appropriate media chosen Interesting exercises included Instructional interactivity ensured Engaging learning environment created Courseware supports users to practice and learn new things Courseware provides good learning experiences The name of developer/developing agency is clearly visible			

The developers will be expected to review the developed courseware as per the given review criteria. If the reviewed courseware mostly falls under criteria fully met category, then developers can go for putting the courseware in public domain. Otherwise, they will be required to revise and modify the courseware accordingly. Besides, they will also be expected to publish the reviewed matrix along with the courseware for benefit of users and other rating agencies.



(B) Review guidelines for peers

There are number of people termed as peers for the review of OER based courseware. These include- fellow developers, institutions, agencies, courseware re-purposers, modifiers, etc. They all are supposed to review different courseware on voluntarily basis. Besides, the developers and agencies will also be expected to find out suitable peers for review of courseware. All these peers will be required to review different OER based courseware as per the given review criteria. The developers will be required to publish following review matrix for use of peers.

Review Criteria	Fully met	Partially met	Not met	Specific Comments
Courseware thoroughly designed Courseware is simple and interesting Courseware title clearly indicates about the content Easy to repurpose Proper licensing done Licensing is clearly visible Available in digital format				
<p>Rating of Courseware:</p> <ul style="list-style-type: none"> • <i>Very good courseware</i> • <i>Good courseware</i> • <i>Average courseware</i> • <i>Needs modification</i> • <i>Unacceptable for release</i> 				

After completing the review, the peers will be required to pass on their recommendations to the developers. On the basis of review, the peers will be expected to rate the courseware under five categories- Very good courseware, good courseware, average courseware, needs modification, and unacceptable for release. It will be beneficial for courseware developers to follow the suggestions of peers for betterment and quality improvement of courseware. The developers will also be asked to display the ratings of at least ten peers at the front page of the courseware.

(C) Review guidelines for users

The question of quality of OER based courseware is more or less user specific. If a courseware is useful for users and helps them to learn better, then that courseware is normally assigned the tag of a quality courseware. It means, users are the last and final authority to pass on a judgment about the quality of courseware. For this purpose, the users are expected to review the courseware to pass on a judgment about its quality. The users are supposed to review the courseware as per the following

review criteria. The developers will be required to publish following review matrix for use of peers.

Review Criteria	Fully met	Partially met	Not met	Specific Comments
Content is easily understandable Content is accurate and error free Content is sufficient Content is up to the level of learners Content is as per the needs of learners Courseware is easily downloadable Easy to repurpose				
<p>Rating of Courseware:</p> <ul style="list-style-type: none"> • <i>Very good resource for learning</i> • <i>Good resource for learning</i> • <i>Average resource for learning</i> • <i>Difficult for learning purposes</i> • <i>Very difficult for learning purposes</i> 				

Considering the fact that question of quality of OER is mainly targeted to users, the users are expected to seriously and necessarily review the OER based courseware. The reason is that they are the best person to judge the quality of courseware. Under this mechanism, the users will be expected to rate the courseware under five categories- very good resource for learning, good resource for learning, average resource for learning, difficult for learning purposes, and very difficult for learning purposes. The users will be expected to post their ratings and comments about the courseware on the front page. In other, side it will be the responsibility of developers to take care of ratings and comments of users for maintaining the quality of courseware.

Conclusion

The issue of quality assurance in OER based courseware is a complex one, it involves a number of stakeholders. Considering this, academic fraternity is trying a number of permutations and combinations to maintain the quality of OER based courseware. The proposed mechanism is also an attempt in this direction. In this mechanism, responsibility for assuring the quality of OER based courseware resides with the developers, peers, and users. It is expected that all these stakeholders will review the available courseware as per the specified review criteria. The responsibility of all these stakeholders will be different. The peers will be required to review the courseware that whether it is developed as per the prescribed academic standards and norms. The users will be expected to pass on the judgment that whether courseware fulfills their learning needs, and easy to understand and work on. The



developers are going to perform the most crucial task. In one side, they are going to review their own courseware, and in other side, they have to incorporate the suggestions given by peers and users to improve the quality of courseware.

There are four major aspects of OER based courseware - content, pedagogy, presentation, and publication. The quality of any courseware more or less depends on these aspects. Proposed review mechanism takes care of all these aspects and related issues. It is supposed that proposed mechanism will add to the global initiatives of quality assurance in OER based courseware. The proposed mechanism is a suggestive one, and one can add different dimensions to it as per the need and nature of quality assurance. The other vital aspect of the proposed mechanism is that it takes care of the cost and sustainability aspects of quality assurance in OER. This mechanism works on the community supported quality assurance initiatives from users, peers and developers. In nutshell, we can hope that proposed tripartite review mechanism will be of immense help for OER community to come up with highly interactive, engaging, and effective OER based courseware for no-cost access, use, adaptation and redistribution by learners.

References

- Achieve. (2012). *Helping educators determine the quality of open education resources*. Retrieved from <http://www.achieve.org/helping-educators-determine-quality-open-education-resources>
- D'Antoni, S., & Savage, C. (Eds.). (2009). *Open educational resources conversations in cyberspace*. Paris: UNESCO.
- Downes S. (2007). Models for sustainable open educational resources. *Interdisciplinary Journal of Knowledge and Learning Objects*, 3, 29–44. Retrieved from <http://www.ijkl.org/Volume3/IJKLOv3p029-044Downes.pdf>
- Geser, G. (2012). *Open educational practices and resources OLCOS roadmap 2012*. Austria: OLCOS Project. Retrieved October 1, 2012, from http://olcos.org/cms/upload/docs/olcos_roadmap.pdf
- McGill, L. (2011). *Quality considerations*. Retrieved from <https://openeducationalresources.pbworks.com/w/page/24838164/Quality%20considerations>
- OECD. (2007). *Giving knowledge for free the emergence of open educational resources*. Paris: OECD.
- OER Africa. (2013). *African Health OER network*. Retrieved from <http://www.oerafrica.org/healthoer/Home/tabid/1858/Default.aspx>
- Pawlowski, J.M. (2007). The quality adaptation model: adaptation and adoption of the quality standard ISO/IEC 19796-1 for learning, education, and training. *Educational Technology & Society*, 10, 3–16.
- Santally, M. I. (2010). *Innovative learning, technologies and pedagogies*. Retrieved from <http://vcilt.blogspot.in/>
- Tzikopoulos, A., Manouselis, N., & Vuorikari, R. (2007). An overview of Learning Object Repositories. In P. Northrup (Ed.), *Learning Objects for Instruction, Design and Evaluation* (pp. 29–55). Hershey, PA: Information Science Publishing. Retrieved from <http://infolab-dev.aua.gr/files/publications/en/1185188742.pdf>
- White, G. (2008). ICT trends in education. *Digital Learning Research*. Retrieved from http://research.acer.edu.au/digital_learning/2
- WikiEducator. (2009). *Quality Assurance Framework portal*. Retrieved from http://wikieducator.org/WikiEducator:Quality_Assurance_Framework/Contribution_Levels

Open Educational Resources: Opportunities and Prospects for Pakistan

Dr. Nabi Bux Jumani

Professor of Education and Dean

Faculty of Social Sciences

International Islamic University Islamabad Pakistan.

Abstract

The information technology [IT] has opened endless vistas for the educationists who are always trying to harness it for instructional purposes. E-learning and resource based learning are some of the examples of such endeavour. However, the tremendous progress in IT has also created digital divide. The concept of open educational resources [OER] is gaining increasing importance as it has the potential to bring down this digital divide. This paper is an attempt to examine the OER from Pakistani perspectives. The objectives of this qualitative study were to find out Pakistan's contribution to OER as well as need, use, and barriers to the OER in Pakistan. The data were collected through interview of five faculty members and twenty doctoral students. It was found that Pakistan's higher institutions were making some efforts in producing OER. OER was needed in Pakistan for improving quality of education and it was being used for various educational purposes. Underutilization and lack of support were the chief barriers to the OER in Pakistan.

Key words: OER, utilization of OER, Barriers, higher education

Review of Literature: The concept of Open Educational Resources

Open Educational Resources, when first appeared as a definite term at the 2002 UNESCO Forum, was defined as “the open provision of educational resources, enabled by information and communication technologies, for consultation, use and



adaptation by a community of users for non-commercial purposes” (UNESCO, 2002, p. 24). Since then the term has been discussed extensively. Hylén (2006) has elucidated the words “open”, and “resources” in the definition along with the “users” and “producers” of OER. He argues that openness demands free availability, minimum restrictions, no technical as well as price barriers, an minimum permission barriers for the end users. Hylén (2006, p.2) thinks that the term “educational” is also ambiguous as it alludes to formal educational setting, it should also encompass informal and non-formal learning. Downes (2007, p.30) suggests that the term resources is “necessarily vague” as it implies some physical objects or digital resources. He advises that there should not be any specification of the educational resources as such specification would only limit the scope of the resources. Geser (2007, p. 20) contends that if the aim of OER is educational leveraging then open in OER implies four “opens” which are open access, open licensed, open format, and open software. Admitting the fact that purely informational content has a significant role in learning and teaching, Littlejohn, Falconer and McGill (2008) suggest that educational resources may include (a) *Digital assets* – normally a single file e.g. an image, video or audio clip, (b) *Information objects* –digital assets designed purely to present information, (c) *Learning objects* –digital assets which are educationally meaningful stand-alone unit, (d) *Learning activities* – learning outcome oriented tasks involving interaction with information, and (e) *Learning design* – well-ordered chain of information and activities to promote learning.

Commonwealth of Learning and UNESCO tried to clarify all the ambiguities and questions about OER by publishing a book entitled “A Basic Guide to Open Educational Resources (OER)”. Here, Butcher and Kanwar (2011) give a more comprehensive definition of OER;

Any educational resources (including curriculum maps, course materials, textbooks, streaming videos, multimedia applications, podcasts, and any other materials that have been designed for use in teaching and learning) that are openly available for use by educators and students, without an accompanying need to pay royalties or licence fees. (p. 5)

Butcher and Kanwar (2011) further clarify that OER is not same as e-learning, open learning/education, and resources-based learning. However, it is , to some extent, synonymous with Open Course Ware (OCW) which is “specific” and “more structured subset” of OER (p. 5).

Significance of OER

OER has benefited millions of individuals as well as many educational institutions (Bossu, Brown & Bull, 2012). It is a unique blend of traditional and modern approaches. It is traditional as it signifies the rebirth of missionary nature of the teaching-learning process (teaching without any concern for monetary reward). It is modern in the sense that it utilizes the recent technology and it epitomizes the global recognition of education as right of every one. It has the potential to provide evenly

balanced educational opportunities to every human being irrespective of the geographic, ethnic, or religious boundaries.

Hylén (2006, pp. 5-6) argues that OER is essential to achieve the gains as well as to avoid some threats or negative effects. He enlists following advantages for the individuals and institutions if they are involved in OER;

- To uphold the traditional academic values of universities
- To avoid risk of monopoly, social inequality, and duplication of work
- To improve quality and promote societal as well as scientific development
- To ensure good reputation, and enjoy pleasure of sharing
- To ascertain better use of available resources
- To compete well in increased globalized higher education

OECD (2007, p. 11) advises the educational institutions to consider OER for teaching and learning as promises following returns:

- OER is good as it is aligned with academic traditions of sharing knowledge
- Free sharing and reuse of resources enable institutions to satisfy taxpayers
- It enhances the institution's public relations as OER project serves as a showcase for attracting new students
- Open sharing has the potential to accelerate the development of new learning resources, encourage internal improvement, innovation and reuse.

Bossu, Brown and Bull (2012) conducted a survey to solicit opinion about the advantages of OER. The participants agreed that OER benefits the users as well as the producers, that is it is not only useful for the learners and teachers but also for the institutions. Some of the advantages, as enumerated by Bossu, Brown and Bull (2012) are as under;

- Educators can save time and avoid duplication of effort.
- OER can improve the quality of educational learning materials.
- OER have the potential to increase collaboration within an institution and internationally.
- OER help to enhance quality of teaching and learning in higher education.
- An OER project is a good marketing strategy to showcase the institution and attract new students.
- An OER project will raise the international profile of an institution within the global community.
- OER use is a catalyst for institutional innovation.
- OER has the potential to lead to new pedagogical practices.
- OER promises social improvements and access to education for all.
- Increasing efficiency in time and/or money and improvement of the quality of teaching resources. (p. 6)



Challenges to OER

OER has capability to provide standard education worldwide (D'Antoni 2006). However, being a recent concept and having a gigantic goal, it is facing many challenges. These issues have been discussed extensively. The major issues of OER, as identified by various educationists, are listed below;

- Clarification of intellectual property rights
- Sustainable production as well as sharing of resources
- Enhancing access and effectiveness
- Inadequate ICT infrastructure
- Language and culture
- Locating and using the resources
- Inadequate financial back up
- Maintaining equilibrium between open and for profit educational resources
- Underestimation of quality of open educational resources
- Lack of incentives for educators as well as universities to produce open educational material
- Assessment and certification of the learners
- Unawareness of OER

(Atkins, Brown, & Hammond, 2007; Joyce, 2007; Wiley, 2007; Larson & Murray, 2008; Yuan, MacNeill & Kraan, 2008; Kanwar, Kodhandaraman & Umar, 2010; Bossu, & Tynan, 2011; Friesen, & Wihak, 2013)

The Study

The objectives of the study were to find out; Pakistan's contribution to OER, need of OER in Pakistan, utilization of OER in Pakistan and barrier to OER in Pakistan.

Qualitative research approach was adopted to explore the objectives. The sample of the study, selected by convenient sampling method, consisted of 20 doctoral students (who were from various parts of the country and were teaching in some school) and five faculty members (who had a PhD degree). The students as well as faculty members were taken from faculty of social science at International Islamic university Islamabad. The data were obtained through semi structured interview sheet.

However, for finding the contribution of Pakistan in providing OER, the data were obtained by searching on the internet. The websites of universities and educational organizations were visited to find if they provided any open educational material.

Findings and Discussion

The current status of OER in Pakistan

Although OER is a recent concept, it has got so much attention of the world that it is expanding significantly. Friesen (2009, p.3) declares that presently active online

educational resources (most of them free) are so huge that even listing of these resources is “impossible or at least unwieldy”. However, mostly these resources are provided by the technologically advanced countries. The developing countries are the ‘consumers’ of OER rather than the ‘producers’. In Pakistan, there has been much emphasis on higher education during the first decade of 21st century. The Government of Pakistan has been trying to bring higher education at par with international standards. However, there has been no significant effort towards OER. In this respect, there have been some efforts which are as under:

1. The Open Course Ware Consortium, sponsored by The William and Flora Hewlett Foundation, is a group of institutions as well as organizations around the globe providing open educational resources. The Virtual University of Pakistan is also the Sustaining Member of this consortium. It has contributed by providing 146 open educational courses on variety of subjects (Virtual University of Pakistan, 2011).
2. The MIT BLOSSOMS is collaboration of the worldwide community providing open course wares for math and science at high school level. Pakistani higher education institutions are “the original BLOSSOMS partners” which participate “equally as content producer and content user” (Massachusetts Institute of Technology, 2013). The partner institutions from Pakistan in this consortium are (a) Pakistan Virtual University, (b) Lahore University of Management and Science, (c) Punjab University, and (d) National University of Computer and Emerging Sciences.
3. The Higher Education Commission of Pakistan is providing online free full-text access to all the PhD level theses done in the higher education institutions in Pakistan (Higher Education Commission of Pakistan, n.d.).
4. The National Commission for Human Development [NCHD] is striving for increasing the enrolment rate as well as literacy rate in Pakistan (National Commission for Human Development, n. d.). It has provided free access to teacher training material.

Pakistan is a developing country and the efforts for providing OER are encouraging. However, keeping in view the potential and the need, the OER provided by Pakistani institutions/organizations seem to be inadequate.

Need of OER in Pakistan

All the respondents agreed that OER was extremely needed in Pakistan. Most of them referred to the scarcity of available resources in the schools, high dropout rate, uninteresting teaching strategies adopted by the teachers, and lack of funds in the schools to help teachers and learners to purchase online teaching-learning materials. They stressed that OER could prove very valuable for improving the quality of



education in Pakistan. It could facilitate the teachers to make their classroom interaction interesting. One of the faculty members said emphatically

“Our curriculum emphasises on comprehension while teaching as well as assessment is limited to rote-memorization, for broadening scope of teaching, it is essential that teachers and students use new information technology, and OER is the best choice.”

Majority of the respondents were of the view that they faced difficulty in finding the research done indigenously as most of the research conducted by the universities was confined in the shelves of the respective university libraries. So, it is need of the hour, that these universities must take measures to disseminate the research by providing free online access to it.

Utilization of OER

Summary of the usage of OER by the respondents is given in Table 1. Table 1 shows that all of the respondents used OER for research purposes, understanding concepts and planning teaching. However, none of the respondents had ever taken any course as a student. Only the faculty members utilized OER for improvement of curricula, developing teaching and learning materials, and adopting material in the classrooms. It is surprising that the doctoral students (who were the school teachers) did not use developing teaching and learning materials, and adopting material in the classrooms.

Table 1: Utilization of OER in Pakistan

Area	Faculty members	Doctoral students
Taking online courses	✗	✗
Understanding concepts	✓	✓
Planning teaching	✓	✓
Improvement of curriculum	✓	✗
Development of teaching and learning materials	✓	✗
Adoption of material in the classrooms	✓	✗
Improving instructional strategies	✓	✗
Research purpose (review of literature etc.)	✓	✓

Barrier to OER in Pakistan

Panke (2011) is of the opinion that neither teachers nor students recognize well the significance of OER in teaching-learning process. This was the chief barrier to OER in Pakistan, as expressed by all the respondents. The teachers as well as the learners did

not know the utility of OER for instructional purposes. So, neither of the two were utilizing the resources available free to them. All the respondents thought that underutilization of OER was a challenge that was because of the lack of knowledge about OER. Language was another major barrier. There is scarcity of resources in Urdu language. Although, the Virtual University and the Khan Academy provided OER in Urdu language also, these were insufficient efforts to cover all the subjects. Most of the respondents thought that lack of institutional efforts to encourage scholars for producing OER was one of the major hurdles towards dissemination of OER in Pakistan. Many respondents thought that unavailability of ICT infrastructure was another hurdle in the use of OER.

Conclusion

Pakistan's efforts for being a producer of OER rather than mere user are really commendable. However, this is an initial stage. Pakistan has a great potential to produce OER. Therefore, a strong will is needed in this context. No doubt, OER is essential for improving the quality of education in Pakistan. But, still it is not being utilized effectively. So, it is important to disseminate knowledge and importance of OER to the people. Mostly, it is being used in higher education institutions. While it is not being used at school level which is fundamental goal of OER.

References

- Atkins, D. E., Brown, J. S., & Hammond, A. L. (2007). *A review of the open educational resources (OER) movement: Achievements, challenges, and new opportunities*. Report to The William and Flora Hewlett Foundation. Menlo Park, California: William and Flora Hewlett Foundation.
- Bossu, C., & Tynan, B. (2011). OER: new media on the learning landscape. *On the Horizon*, 19(4), 259 - 267.
- Bossu, C., Brown, M., & Bull, D. (2012). Do Open Educational Resources represent additional challenges or advantages to the current climate of change in the Australian higher education sector? In Ascilite Conference Proceedings; Future challenges: sustainable futures; 25th - 28th November 2012; wellington. Retrieved from http://www.ascilite2012.org/images/custom/bossu,_carina_-_do_open_educational.pdf
- Butcher, N. & Kanwar, A. (2011). A Basic Guide to Open Educational Resources (OER). Vancouver; Commonwealth of Learning & UNESCO. Retrieved from http://www.col.org/_layouts/download.aspx?SourceUrl=http://www.col.org/PublicationDocuments/Basic-Guide-To-OER.pdf
- D'Antoni, S. (2006). Open Educational Resources: Deliberations of a Community of Interest. Presented at ICDE SCOP, 11-13 June 2006, Lillehammer, Norway: ICDE, 2006. Retrieved from [http://www.icde.org/oslo/icde.nsf/94C757D5A6762C63C12573410041800D/\\$FILE/2006+Report+of+Activities+3+WEB.pdf](http://www.icde.org/oslo/icde.nsf/94C757D5A6762C63C12573410041800D/$FILE/2006+Report+of+Activities+3+WEB.pdf).
- Downes, S. (2007). Models for sustainable open educational resources. *Interdisciplinary Journal of Knowledge and Learning*, 3, pp. 29-44. Retrieved from <http://nparc.cisti-icist.nrc-cnrc.gc.ca/npsi/ctrl?action=rtdoc&an=5764249>.



- Friesen, N. (2009). Open educational resources: New possibilities for change and sustainability. *International Review of Research in Open and Distance Learning* 10(5). Retrieved from <http://www.irrodl.org/index.php/irrodl/article/viewFile/664/1391>.
- Friesen, N. & Wihak, C., (2013). From OER to PLAR: Credentialing for open education. *Open Praxis*; 5 (1) (Special theme: Openness in higher education), 49–58. Retrieved from <http://www.openpraxis.org/index.php/OpenPraxis/article/viewFile/22/pdf>.
- Geser, G. (2007). Open Educational Practices and Resources - OLCOS Roadmap 2012. Austria; Open e-Learning Content Observatory Services (OLCOS). Retrieved from http://www.olcos.org/cms/upload/docs/olcos_roadmap.pdf
- Higher Education Commission of Pakistan. (n. d.). Pakistan research repository. Retrieved from Higher Education Commission of Pakistan website <http://eprints.hec.gov.pk/>.
- Hylén, J. (2006). Open Educational Resources: Opportunities and Challenges. *Open Education*. OECD. Retrieved from <http://www.oecd.org/edu/ceeri/37351085.pdf>
- Joyce, A. (2007). OECD Study of OER: Forum Report. UNESCO: March 2007. Retrieved from http://www.unesco.org/iiep/virtualuniversity/forumsfiche.php?queryforumspages_id=33.
- Kanwar, A., Kodhandaraman, B., & Umar, A. (2010). Toward Sustainable Open Education Resources: A Perspective From the Global South. *American Journal of Distance Education*, 24(2), 65 – 80.
- Larson, R. C. & Murray, M. E. (2008). Open educational resources for blended learning in high schools: Overcoming impediments in developing countries. *Journal of Asynchronous Learning Networks*, 12: 1, 85-103. Retrieved from <http://robinwofford.wiki.westga.edu/file/view/EJ837471.pdf/238606187/EJ837471.pdf>
- Littlejohn, A., Falconer, I. & McGill, L. (2008). Characterising effective eLearning resources. *Computers & Education*, 50 (3), 757-771. Retrieved from <http://dx.doi.org/10.1016/j.compedu.2006.08.004>
- Massachusetts Institute of Technology. (2013). MIT BLOSSOMS: Partners. Retrieved from Massachusetts Institute of Technology website <http://blossoms.mit.edu/partners/partners>.
- National Commission for Human Development. (n. d.). Education. Retrieved from NCHD website http://www.nchd.org.pk/ws/index.php?option=com_content&view=article&id=61&Itemid=14
- OECD. (2007). Giving knowledge for free: The emergence of open educational resources. Retrieved from <http://www.oecd.org/dataoecd/35/7/38654317.pdf>
- UNESCO (2002). *Forum on the impact of Open Courseware for higher education in developing countries final report*. Retrieved from <http://unesdoc.unesco.org/images/0012/001285/128515e.pdf>.
- Panke, S. (2011). An Expert Survey on the Barriers and Enablers of Open Educational Practices. *eLearning Papers*, 23(March 2011).
- Virtual University of Pakistan. (2011). Available courses. Open Course Ware: Virtual University of Pakistan. Retrieved from <http://ocw.vu.edu.pk/Courses.aspx>.
- Wiley, D. (2007). On the sustainability of open educational resource initiatives in higher education. OECD's Centre for Educational Research and Innovation (CERI). Retrieved from <http://www.oecd.org/edu/ceeri/38645447.pdf>.
- Yuan, L., MacNeill, S., & Kraan, W. (2008). Open Educational Resources—Opportunities and Challenges for Higher Education. Retrieved from http://publications.cetis.ac.uk/wp-content/uploads/2012/01/OER_Briefing_Paper_CETIS.pdf.

Acknowledgements

I hereby acknowledge the assistance provided by Abdul Jabbar Bhatti, Research Scholar at Department of Education, International Islamic University Islamabad Pakistan.

Development of Open Education Resources: Sri Lankan Experience

Dr Vijitha Nanayakkara,

Vice-Chancellor

The Open University of Sri Lanka, Colombo.

Email: vijithapdn@gmail.com or vc@ou.ac.lk

Abstract

This paper starts by exploring the concept of OER as a pedagogical strategy in open and free learning across the board. An attempt has been made to discuss the initiatives taken in developing Open Educational Resources (OER) in Sri Lanka on a wider perspective of online and eLearning. Although there is no formal OER policy in Sri Lanka, a number of initiatives have been implemented over the last few years. Some of these projects are being implemented while others are still in the pipeline. Of which, the initiatives taken by the Open University of Sri Lanka are most laudable as a premier higher educational institute of the country. There is no denying the fact that the benefits of OER initiatives outweigh the disadvantages of implementing them in developing countries such as Sri Lanka. It is abundantly clear that we are lagging behind even some developing countries in terms of recognizing OER strategy as a national priority area in education. This paper also identifies some of the challenges and barriers that need to be addressed sooner than later to keep pace with other players in the education sector in our region.

Key words: OER, OUSL, eSri Lanka, Nanasala, OSFOR, NODES



Introduction

Open Education Resources (OER) concept is little over ten years old. The term Open Educational Resources (OER) was coined at UNESCO's 2002 forum on the Impact of Open Courseware for Higher Education in Developing countries funded by the William and Flora Hewlett Foundation. The forum resolved 'Open Educational Resources' are defined as 'technology-enabled, open provision of educational resources for consultation, use and adaptation by a community of users for non-commercial purposes' (Sitansu S. Jena, 2012). Open Educational Resource includes learning objects such as lecture materials, references and readings, simulations, experiments and demonstrations as well as syllabi, curriculum and teachers' guides (David Wiley, 2007). The UNESCO definition of OER refers to '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 access, use, adaptation and redistribution by others with no or limited restrictions'.

The UNESCO declaration recommends that countries and states should foster awareness and use of OER, facilitate enabling environments for use of information & communication technologies (ICT), reinforce the development of strategies and policies on OER, and support capacity building for the sustainable development to quality learning materials. It also encourages strategic alliance for OER, research on OER, the open licensing of educational materials produced with public funds and the development and adaptation of OER in a variety of languages and cultural contexts.

Sri Lankan initiatives

In Sri Lanka, there is no national OER strategy or a formal OER policy, but a number of OER activities have been introduced in recent years to promote open education resources within a broader framework of online learning.

- a) **The National e-Learning Movement in Sri Lanka:**
The National Learning Project is to build up and maintain a sustainable National e-Learning Centre in Sri Lanka that will be a mechanism for the use of ICT for national development as to visualize the e-Sri Lanka program.

- b) **e-Sri Lanka:**
The government of Sri Lanka aims to provide access to diverse and unrestricted sources of information and means of communication to all citizens through the establishment of Nenasala. The Nenasala Project was implemented under the e-Sri Lanka initiative in 2005. Activities of this project are organized under the Information Communication Technology Agency (ICTA) and the project is intended to establish Rural Knowledge Centres, e-Libraries, Distance and e-Learning Centres, and Tsunami Camp Computer Centres. The administrative divisions of Sri Lanka include 25 Districts, 319 District Secretariat Divisions and 14,009 Grama Niladari Divisions which include 38,259 villages. ICTA planned to establish 1000 Nenasala centres through out the country and the first phase of Nenasala Project is to establish 100 Nenasala in the deep South of

Sri Lanka covering Galle, Matara, Hambantota, Moneragala, Rathnapura, and Badulla Districts and the North Eastern Zone covering Jaffna, Kilonochchi, Vaunia, Mulative, Polonnaruwa, Anuradhapura and Polonnaruwa Districts. Now there are more than 700 Nenasas centres have been established under this project covering most of the district through out the country.

- c) **Open Source Learning Object Repository (OSLOR):**
This project was developed in collaboration between University of Colombo, School of Computing, Sri Lanka, Stockholm University and Orebro University, Sweden. The primary aim of this project is to promote open flexible and e-Learning Environment to provide effective efficient, scalable and economical learning opportunities to stakeholder communities in universities, schools and society at large.
- d) **The National Online Distance Education Service (NODES).** Although the Ministry of Higher Education, Sri Lanka has not included the development of OER policy framework in its strategic plan, it has taken a number of steps to develop online education environment. The National Online Distance Education Service (NODES) implemented under the Ministry of Higher Education is one of the initiatives. The NODES operated with three main technological entities namely the Network Operation Centre (NOC), Disaster Recovery Centres (DR) and Nodes Access Centres (NACs) all over the island. The NOC operates with high end servers with 128 Mbps VPN connectivity with other entities and 10 MBps Internet Backbone. The disaster recovery center is fully automated to recover data in the event of NOCs unavailability. Each NACs is equipped with 25 multimedia PCs with video conference facility, printers and copiers etc. The video conferencing facility connecting 20 centres at any given time makes NODES to expand the capacity of catering education and proven the connectivity of 500 students simultaneously.

Higher Education for Twenty First Century Project (HETC) operated under the Ministry of Higher Education is a credit given to the Government of Sri Lanka by the International Development Association (World Bank) amounting US \$ 40 Million for the period of 5 years from 2011 to 2016. The main objective is to enhance the capacity of higher education services in line with equitable social and economic development need of the country. The HETC is organized with four components. The first component is to develop a Sri Lanka Qualification Framework and Quality Assurance and Accreditation System for Higher Education in Sri Lanka. The second component is to promote relevance and quality of teaching and learning in all 15 Universities. The third component is to strengthen the alternative higher education by developing the Advanced Technological Institutes of the SLIATE. The fourth component is to strengthen human resources of the higher education system.

- e) **The Open University of Sri Lanka initiative:**
The Corporate Plan of the OUSL (2011-2016) in its mission emphasizes the need 'to enhance access to high quality, affordable, and relevant education...'. Although this mission statement does not specifically make reference to OER, it



is pertinent to note that OER is generally acknowledged to greatly facilitate achieving the twin objectives of quality and affordability (Liyanagama and Vidanapathirana, 2012). The Open University of Sri Lanka is the first and the only educational institute in Sri Lanka to adapt OER as a policy and has taken steps to implement it. The Open University of Sri Lanka, the first open distance leaning university in Sri Lanka, was established Under the Universities Act No. 16 of 1978 under a separate Ordinance No.1 of 1980. The main objective of establishing this university is to address the problem of limited higher educational opportunities in the state universities and to open a gate to higher education to those who are unable to enter into the state universities regardless of their eligibility. Approximately, 250,000 of students sat for Advanced Level Examination in 2010 and over 60 percent of candidates were eligible for University entrance. However, only 15-25 percent of students out of the total eligible students for university entrance were admitted to the state universities. Further OUSL opens to the students who fail to get through highly competitive Advanced Level examination but need to continue higher education and the others who need higher education qualification for their professional development. There is no age, gender, or any other social barriers to be a student in the Open University in Sri Lanka. Therefore its vision is to be the premier open and distance learning institution in Asia through excellence efficiency and equity in life long learning.

What the Open University of Sri Lanka has done for developing OER?

Its Corporate Plan 2011-2016 identified 7 goals;

1. Be the lead institution in Asia providing high quality and relevant education through open and distance learning.
2. Be a centre of excellence in scholarship, research and innovation.
3. Ensure quality and timelines in the provision of open and distance teaching and learner support services.
4. Widen access to education through ODL and provide ladders of opportunity for learners.
5. Enhance institutional capacity to achieve efficiency and effectiveness in all operations.
6. Enhance institutional capacity for resource generation to ensure financial sustainability.
7. Enhance the physical environment to create a conducive environment in the university

As Liyanage and Widanapatirana (2102) noted the strategy of the OUSL is to start with conversion of its Foundation Level courses into OER format. The action plan associated with this initiative specify the following actions (Liyanage and Widanapatirana, 2102).

- a) establishment of OER cells at faculty levels to encourage the transformation of the foundation level courses.
- b) Identifying OER champions at faculty levels.
- c) Introduction of an incentive mechanism to motivate those staff members making extra-effort to carry out OER transformation.
- d) Train academic staff members interested in OER
- e) Encourage research initiatives to examine the processes, problems and prospects of OER

A new initiative has been taken by the Education Faculty of the OUSL in 2013 with a view of designing, development and evaluation of an Online Learning Environment on Open Educational Resource for science education. This initiative will integrate ICT and OER into teacher education programs and capacity building of teacher educators at the Open University.

Expected outcomes:

- a) To create an Online Learning environment on OER for science education
- b) To promote awareness, knowledge and skills on OER among student teachers
- c) To produce a trained group of science teachers on using and creating OER

The OUSL Organized a capacity building workshop in the first week of January 2013 on Open Learning, Open Educational Resources and Open Scholarships, OER-Integrated Online Course Design and Development. The expected outcomes of this workshop were to;

- develop academic staff's knowledge and skills on how to identify, evaluate, adapt and integrate OER into existing programs;
- Promote awareness, knowledge and skills on OER among student teachers;
- Enhance the quality of teacher education programs offered by the Faculty of Education and
- Enhance research activities on OER.

Benefits of OER initiatives in general

Traditionally distance education was limited in a sense that it served a limited number of people because of production, reproduction and distribution of costs. Open courseware or Open Educational Resources act as enablers to achieving the universal right to education.

Open Education has been enabled and inspired by the internet and it is open educational resource movement. The primary objective of OER is to address the provision of access to learning opportunities to those who would not otherwise be able to obtain them. Much of the OER debate centers on defining the meaning of 'Open', however this trend to be predominantly about removal of the restrictions



involved in accessing leaning resources, from copyright regulations to financial constraints.

A report on Governments OER Policy prepared by the World OER Congress (2012) emphasized a number of benefits of OER project. Among them,

- a) This approach improves access to education opportunities in all levels of the education system to those who can not make it through normal processes due to limited space.
- b) The OER increase and improve access to education resources for all citizens irrespective of race, gender or location.
- c) It has the freedom to share and the ability to improve material through the collaboration of interested people.
- d) This approach lends itself to feedback and collaboration and harnessing the innovation and creativity of multiple content developers. It also provides access to supplementary materials and allows them to access study materials before deciding to enroll and help them to maintain intellectual ties to their institutions.

Barriers to successful implementation of OER in Sri Lanka

Traditional mindset

Traditionally education was restricted to certain social groups. For example, Brahmins in India and priests and people in higher castes in Sri Lanka. The concept of 'Guru Mushti' promotes that knowledge is not supposed to share with any body and it is strictly confined to those who discovered it and ultimately owned it. In traditional face to face teaching, student is a passive object. In developing countries like Sri Lanka, teacher-student relationship is different from developed countries. The teacher is basically unquestionable and there is a little room for any inquiry. The school teachers are able to maintain traditional teacher-student relationship which is a super ordinate-subordinate relationship by keeping educational resources as a private property owned by them. This seems to be the main reason for their reluctance to accept the concept of OER as a new pedagogical initiative.

Poor infrastructure for online learning

Successful Open Education Resource programs need online learning environment. To achieve the main objective of Open Distance Learning it is essential to establish a online learning environment to match with the ODL delivery mechanism. Online learning environment requires networking facilities, computer availability, stable system and application software and sufficient bandwidth facilitates to improve the computer literacy and internet usability. In general, internet availability and computer literacy are preconditions for the successful operation of ODL in any country to reach the education opportunities to the unreached. But in Sri Lanka such environment has not been adequately set up. The internet facility and computer

availability in Sri Lanka are not equally distributed among the different regions. According to the statistics published by the Media Center for National Development, the highest computer literacy rate of 20 percent was reported in Colombo district followed by Gampaha, Kalutara, Kandy and Matara districts reporting over 10 percent of computer literacy. The other districts reported lower rates and the lowest rate of 3 percent was reported in Monaragala district. Household computer availability is also unequal among the regions as well as sectors. While the computer availability in the urban sector amounts to 23.6%, the rural sector is reporting this percentage as 9.2 and the estate sector amounting at 3.1%. The highest email users of 18.5 percent were reported from Western Province while the lowest of 5 percent reported from North-Western Province. In this scenario, achieving the objective of equity in education through online learning is not an easy task. The government intervention in expanding internet facilities to the underdeveloped areas is therefore a necessary precondition for promoting online learning.

Lack of trained staff

Most of the school teachers and university academics in Sri Lanka are trained by the conventional universities. The system of education is highly 'teacher centered' where teacher preaches what he knows. The use of IT is at a lower level compared to some other countries even in the region. Some do not use IT at all at the primary level. The creation of an IT culture at all levels of education and skill training are inseparable aspects of OER initiatives.

Negative attitudes of the academics

Online learning needs dedication and commitment *inter alia*. The OER initiatives including online teaching interfere with comfort zones of academics who are used to traditional pedagogical techniques. They have to spend their leisure time on preparing online material, and skills training. The OER projects are very time consuming and the materials put in place in the digital form should be very accurate, neat and concise so that users find them very user-friendly in the first place. These projects need very stringent quality assurance mechanisms to safeguard the quality and the accuracy of the content of course material. The OER initiative is a challenging endeavor that needs to be surpassed by clear commitment and dedication by traditionally-minded academics.

Lack of material resources

The OER need adequate IT related resources and equipment. The cost is a major concern in new interventions including OER and the question that needs to be asked is 'who is going to bear the cost?' Individually teachers and the academics are not in a position to bear the cost. There should be a proper channel of money coming through these projects either from the government or non-governmental sector or both.



Legal barriers

The current intellectual property rights in Sri Lanka are governed by the Intellectual Property Act, No 36 of 2003 which makes provisions for a variety of intellectual property rights and their acquisition, managed and enforcement. Under the provisions of this act, texts can be used for face to face teaching and learning but redistribution is warranted. The copyright and publishers are the greatest obstacle to OER initiative overall and there is no exception in Sri Lanka in this regard.

Lack of government policy on OER

Even though government of Sri Lanka is dedicated to improve the IT and English language skills considering the importance of these components in developing quality education, the relevance of open education resources, it seems, has not adequately been taken into consideration. In the higher education policy documents or strategic plans, there is no any single word on open education resources as one of the means for equitable education. It is therefore necessary to realize that time has come for advocacy about the benefits of OER and to get attention of the government authorities to promote the open education resources. Without positive support from the government and its affiliated education institutions it is difficult to overcome the structural barriers faced by the successful implementation of open education resource initiatives. However, in creating conducive environment which is an essential precondition for open education resource movement in Sri Lanka such as improving IT knowledge and computer literacy in the country, the initiatives taken by the Sri Lankan government over the last few years can be commended.

Conclusion

Although the OER movement is fast becoming a global educational phenomenon, Sri Lanka is still in its infancy both in terms of recognizing OER as a formal education policy and the implementation of major OER initiatives even at tertiary level let alone primary and secondary levels. As a matter of urgency, the ministry of higher education in Sri Lanka should include the development of OER policy framework in its strategic plan. Along this line, all state universities should adopt the OER policy in their mission statement to recognize the significance of this fast growing movement across the board. Above all, if we are not keeping pace with other major players in the education sector even in the region such as Singapore, Malaysia, India and Taiwan, we are running the risk of losing momentum in this important sector of the nation. To be successful, the OER initiative must be fully supported by government policies, which support and encourage institutions to share their resources for the public good. Any delay in the introduction of OER, as mainstream educational policy in Sri Lanka could not only jeopardize the drive to widen participation in higher education but also run the risk of marginalizing Sri Lanka as a major player of higher education in the region.

References

1. David Wiley (2007) Paper presented in the Expert Meeting on Open Educational Resources organized by OECD at Centre for Educational Research and Innovation of Utah State University Centre for Open and Sustainable Learning, USA.
2. Liyanagama J and Vidanapathirana U (2012) The Open University of Sri Lanka's institutional policies and strategies towards the use of OER. Proceeding of the Regional Symposium on OER: An Asian Perspective on Policy and Practice
3. Media Centre for National Development, www.development.lk
4. OER.2002, UNESCO Forum 2002, www.unesco.org
5. Sitansu S. J (2012) Open Educational Resources (OER) for employment of open schools. Proceeding of the Regional Symposium on OER: An Asian Perspective on Policy and Practice.
6. Survey on Governments' OER policies. World OER Congress, 2012
7. The Open University of Sri Lanka (2011) Corporate Plan 2011-2016, OUSL Publication.
8. Tom Caswell et al (2008) Open Educational Resources: Enabling Universal Education. International Review of Research in Open and Distance Learning. Vol. 9, No.1. Feb2008.
9. Vidanapathirana U. (2010) 'Open Educational Resources (OER): Are we prepared to meet the emerging challenges', News Letter, June 2010, The Open University of Sri Lanka.





Quality Issues in Open Educational Resources: Need for a Comprehensive Perspective

Mohan Menon
mohanbmenon@gmail.com

0 mohanmenon



Concept

- 'open education' today is considered as a comprehensive concept encompassing all types and kinds of 'openness' including the 'openness' of resources.


1 mohanmenon



OER: a sub-set of Open Education

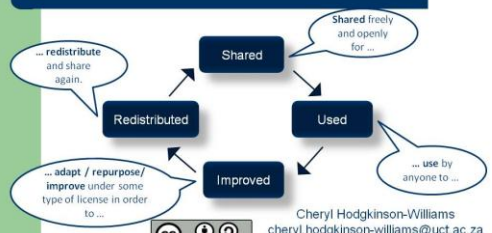
- Open Education** is not limited to just open educational resources. It also includes open technologies that facilitate collaborative, flexible learning and the open sharing of teaching practices and new approaches to assessment, accreditation and collaborative learning (Cape Town Open Education Declaration).

2 mohanmenon




What is "Open Content"?

Open Content / Open educational resources (OER) / Open Courseware are educational materials (usually digital) that can be:




Cheryl Hodgkinson-Williams
cheryl.hodgkinson-williams@uct.ac.za


3 mohanmenon



OER: Reuse-Remix-Redistribute Cycle



4 mohanmenon



OER Quality: Literature Review

Quality Aspects	Operationalisation	Reference
Accuracy	Content is valid and reliable	Nardine Saad (2004)
Relevance	Relevance of content to users needs	
Significance	Content teaches educationally significant concepts, models or skills in the discipline	Nardine Saad (2004)

5 mohanmenon

6

OER Quality: Literature Review

Quality Aspect	Operationalisation	Reference
Pedagogy	The material is effective as a teaching tool; - features in the learning material that support learning and the applicability of the material in teaching and learning processes	Nardine Saad (2004); Paul Gerhard, 2005
Presentation	The material is presented effectively and user-friendly	

mohanmenon

7

OER Quality: Literature Review

Quality Aspects	Operationalisation	Reference
Usability	Technical structure and interface design of the learning material as well as the ease of use arising from these features. Usability is dependent on the user's experience.	
Presentation	The material is presented effectively and user-friendly	Nardine Saad (2004)
Motivating	Emotionally engaging content (or presentation?)	Joseph L. Scott, 1994

mohanmenon

8

OER Quality: Literature Review

Quality Aspects	Operationalisation	Reference
Accessibility	Accessibility in this context means that the online learning materials are accessible to everyone regardless of their age, physical or mental capacity, disabilities or health.	
Findability	"the ability of users to identify an appropriate Web site and navigate the pages of the site to discover and retrieve relevant information resources"	Peter Morville, 2005

mohanmenon

9

OER Quality: Literature Review

Quality Aspects	Operationalisation	Reference
Openness (Legal)	Digitized materials offered freely and openly for educators, students, and self-learners to use and reuse for teaching, learning and research	Bissell (2009)
Openness (Technical)	ALMS Analysis Access to editing tools? Level of expertise required to revise/remix? Meaningfully editable? Source-file access?	Wiley (2009)

mohanmenon

10

OER Quality: Literature Review

Quality Aspects	Operationalisation	Reference
Discoverability	If an OER cannot be discovered, from a practical perspective it might as well be closed	Brown, 2008, Dholakia, King, and Baraniuk, 2006
Searchability	Good practices of site navigation	"Google's Search Engine Optimization Starter Guide, Version 1.1, 13 Nov 2008
Reusability	Pedagogical effectiveness and potential for reuse are completely at odds to each other Four levels of reusability	Wiley (2004) Okado (2010)

mohanmenon

11

Quality Domains

mohanmenon



12

Proposed Quality Aspects

- CONTENT
 - Accuracy
 - Significance
 - Relevance
- PEDAGOGY
 - Theoretical soundness
 - Learner centeredness
 - Effectiveness for different learning levels
 - Applicability in effective teaching-learning processes

mohanmenon

13

Proposed Quality Aspects

- PRESENTATION
 - User-friendly
 - Motivating

mohanmenon

14

Proposed Quality Aspects

- OPENNESS
 - Discoverability-from a practical perspective (Brown, 2008, Dholakia, King, and Baraniuk, 2006)
 - Searchability- Good practices of site navigation ("Google's Search Engine Optimization Starter Guide, Version 1.1, 13 Nov 2008)
 - Reusability-Balance between pedagogical effectiveness and potential for reuse (Wiley, 2004) Levels of reusability (Okado, 2010, Okado, et al. 2012)
 - Findability- ability of an user to search and find a specific resource (Peter Morville, 2005)
 - Usability- combines searchability and findability
 - Open Licence- copyright relaxations

mohanmenon

15

OER: Reuse-Remix-Redistribute Cycle

mohanmenon

16

Mohan Menon
WOU
E-mail: mohanbmenon@gmail.com

mohanmenon



The slide has a white background with a blue wave-like border at the top. It includes the eub logo in the top left. The title "Regional Consultation Workshop on Developing Quality Guidelines for OER" is centered in blue. Below the title, the name and contact information of Professor Dr. Md. Abdul Mannan are listed.

**Regional Consultation Workshop
on Developing Quality Guidelines
for OER**

Professor Dr. Md. Abdul Mannan
Vice Chancellor
European University of Bangladesh
and
Honorary Adviser
Commonwealth of Learning
Email: joyamannan@yahoo.com.au

The slide has a white background with a blue wave-like border at the top and the eub logo in the top left. The title "OER and QA: Tensions/ Challenges" is centered in blue. Below the title is a bulleted list of seven items.

OER and QA: Tensions/ Challenges

- Institutional conservatism vs Openness
- Individualism vs collectivism
- Expansion for Quantity vs openness for opportunity
- Print media vs electronic media.
- OER Movement vs Quality
- Development of OER and Quality

The slide has a white background with a blue wave-like border at the top and the eub logo in the top left. The title "OER Development-Embryonic Stage" is centered in blue. Below the title is a bulleted list of seven items.

OER Development-Embryonic Stage

- Accessing information
- Liberalizing information
- Understanding OER and its benefits
- Open licensing and copyright
- Capacity building (technical know-how, infrastructure etc)
- Emphasis on availability of resources
- Tools and repositories

The slide has a white background with a blue wave-like border at the top and the eub logo in the top left. The title "OER Development Evolving Stage" is centered in blue. Below the title is a bulleted list of seven items.

OER Development Evolving Stage

- OER – means of transforming education
- Beyond access- Open Learning
- Combining formal and informal learning construction + sharing
- External validation for quality improvement/assurance
- Change of educational culture as against availability of resources only
- OER – value added mechanism

The slide has a white background with a blue wave-like border at the top and the eub logo in the top left. The title "Scope- OER Categories" is centered in blue. Below the title is a bulleted list of four items.

Scope- OER Categories

- Open Course Ware: the release of the core teaching and learning materials at any level of education globally.
- Open Publishing: Publication of journal materials, text book etc. without the need to pay for license, access fee etc.
- Open Artifacts: Individual resources, images, libraries, data sets etc.
- Open support: Supporting materials and tools, for learning, methodological guide for QA, education practices and software etc.



Role Players in OER

- Creators/Users
- Hosters:
- Regulators
- Validators
- Institutions




Transforming Education: Potential of OER

- Institutional level: Internal Quality Assurance Process
- Quality Assurance /Accreditation Bodies
- Academic Recognition bodies




Institutional OER Quality Assurance: Challenges

- Integrate OER into institutional quality assurance policy and practices
- Internal process for validating quality of education materials
- Improving quality through peer review process
- Improving materials through peer review process
- Revise/remix for contextualization, personalization and localization;
- Choosing and integrating resources into teaching and learning activities
- CPD for creation and use of OER
- Engaging students for selection and adaptation of OER
- Sharing and collaborating externally
- Defining responsibility of assuring quality of any content use in teaching and learning
- Embedding creation and use of OER in the institutional culture




Quality Assurance /Accreditation Bodies: Challenges

- National QA policy to support OER
- Accreditation bodies recognize role of OER in qualification recognition
- Fostering QA and assessment of programs and institutional QA mechanisms
- Fostering use of OER and assessing educational resources produced, adapted and used



Role of Quality Assurance /Accreditation Bodies

- Develop understanding of OER and its impacts on quality assurance and recognition
- Develop copyright/Creative Commons License focusing around OER
- Include OER as good practice in QA and Recognition



Validation Bodies

- Validated validation bodies
- Encourage user-centered quality mechanisms to allow community to ensure quality (peer-review, commenting, rating).
- Assessment and certification of OER
- Assessment and certification of learning outcomes achieved through OER.



THANK YOU

Quality in Open Educational Resources in the Indian Context




Uma Kanjilal
Indira Gandhi National Open University



<http://www.egyankosh.ac.in>


Journey to OER started with digitisation and repository building

- + Over 95% of the self-instructional print material of the University covering more than 2300 courses available
- + More 2500 video programmes available on YouTube with the metadata link in the repository
- + More than 1,67,593 registered users and visits per day around 1000 from all over the world



Webcasting of Broadcast channels Gyan Darshan and Gyan Vani

IGNOU is the first Open University in the world to adopt OER Policy CC- BY-NC-SA license with Board of Management Approval



<http://www.ignouflexilearn.ac.in/>

- + First MOOC (Massive Online Open Course) portal in the country with crowdsourcing philosophy
- + Open Course Portal for Course wise registration and assessment with modular approach for earning course credits for a certificate, diploma or degree



- More than 900 courses available with 63699 registered users.
- E-portfolio for a formal record of all formal and informal studies carried out by the registered learner

Virtual Classrooms

27 online programmes- all processes online right from registration to certification with the following features:

- + Walk in admission
- + Integrated multimedia courseware (personalized learning space)
- + Online counseling and mentoring (web conferencing, text based chatting)
- + Assignment Management System
- + E-tutor based practical
- + Group based online seminar
- + Online Project platform
- + Online Term End Examination (proctored)



IGNOU Adopts OER Policy

- + IGNOU envisions to be a leading developer of OERs with the use of its own as well as other OERs fully incorporated into teaching and learning at all levels within the University system
- + The policy is adopted to guide the **promotion, development and usage** of OERs and to further ensure that the highest standards of education are achieved thereof.

Purpose of the OER Policy

- + Make materials available under open license
- + Support voluntary participation of Faculty and others in developing OER content
- + Clarify publication rights and licensing issues
- + Provide guidance in development and review of OER materials prior to sharing them on a worldwide scale
- + Define collaborations within and without the university with the intent to allow access to the open content.

Licenses for IGNOU OER Repository

- + In general all IP and the outputs and outcomes arising from that IP will be owned by the creator whereas IGNOU will derive benefits from the outcomes.
- + All materials released on the IGNOU OER Repository site will be covered under the Creative Commons Attribution-Non-Commercial-Share Alike 2.5 India (CC BY-NC-SA)

Other Initiatives in the Country

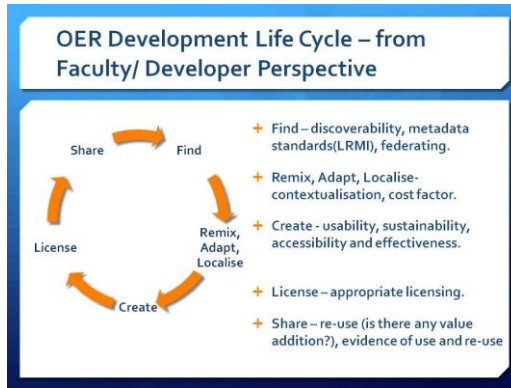
- + National Mission on Education through ICT- NPTEL, e-Pathshala, CEC, IGNOU (all commissioned projects), virtual labs, OSCAR, Talk to a Teacher
- + Content developed based on four quadrant approach
- + Quality assurance through peer reviewing by PRSG
- + 50 DTH channels for Education – massive content requirement to feed these channels.

Issues on development, use and re-use of OERs

- + Quantity Vs. Quality
- + Relevance or fitness for use
- + Cost factors

QUALITY PARAMETERS FOR OER

- + **Usability (Technical/Legal):** Can the resource be used? Is it dependent on particular platforms/networks/tools or can it be used by anyone?
- + **Authenticity:** Is the information accurate, uptodate?
- + **Pedagogic value:** Is it appropriate for self directed learning? Can it be incorporated into learning activities? Does it meet a teaching need.



- ### Concluding Remarks
- + Urgent need for guidelines and indicators for quality assurance
 - + user-friendly tools to locate and retrieve OER- standard metadata requirement
 - + Formats and Interoperability
 - + Contextualizing and mapping to curriculum – implications for teaching/ learning and new methods of assessment and accreditation
 - + QA based toolkit integrated in the OER platform



OER: FROM THE PERSPECTIVE OF QUALITY GOVERNANCE

H. C. Pokhriyal
Executive Director
School of Open Learning
University of Delhi, Delhi 110007
Email- hcp@sol.du.ac.in web- <https://sol.du.ac.in>

- ✦ Broader Concept/Integrated Realities
- ✦ OER and 'IPR'– Legal framework
- ✦ Practitioners' Approach & Examples from a Dual Mode University
- ✦ Defining 'Quality' and 'Governance' Opportunities and Challenges
- ✦ 'Guidelines' to 'Indicators' leading to develop 'Index'

- ✦ Indian Context: Public Policy
- ✦ Twelfth Plan 2012 –2017
 - + Expansion/Access– existing institutions, Capability enhancement and extensive use of ICT
 - + Equity– region, social and gender
 - + Excellence– Input centric to learner centric, innovation, outcome focused
- Finance– enhancing, ppp, finance–link–outcomes
- Governance– Transparency, autonomy, regulatory reform

- ✦ Indicators may be broadly classified as–
 - ✦ Structure–inputs
 - ✦ Processes–joyful learning processes, Urgency, Methodology facilitating learning
 - ✦ Output–enhancing learning achievements
 - ✦ (my learning with our students is different–they are rational, % divide, majority of them do multiple courses, getting best out of dual mode DU, optimal use of time and resources, major liking is hard copy learning material, integrated ICT (three balloons of e–educational governance–SIMS, automation & LMS) students use for SIMS–less for learning contents, 'no big–bang', supply – side challenges, use of radio, sms/ivr 09268825299)

FINALLY-

- ✦ Quality indicators to be able to incorporate diverse realities associated with learning processes, converting indicators to 'INDEX'
- ✦ OER should be seen as one of the components facilitating learning (as Learning is voluntary, research study...)
- ✦ OER is an integral component of ODL envisioning quality governance facilitating a higher level of achievement and learning

Developing Quality Guidelines for Open Educational Resources – Some thoughts!

Dr. Savithri Singh
Principal
Acharya Narendra Dev College
(University of Delhi)

- ▶ OER – reuse, revise, remix, redistribute – formats should allow this to be done easily!!
 - Licences – Creative Commons
 - Technology – User friendly – Use of open and free Software
 - Accessibility – Tagging is important

Validities –

As defined in 'National Focus Group report on 'Teaching of Science' NCERT 2005

- ▶ Content validity
- ▶ Process validity
- ▶ Historical validity
- ▶ Cognitive validity
- ▶ Ethical validity
- ▶ Environmental

▶ Space for :

- contribution by the learners
 - Learner-experiences should inform the OER
- Skill Development
- Entrepreneurship opportunities

▶ IGNOU guidelines for SLM –Self-explanatory, Self-contained, Self-Directed, Self-motivating, Self-evaluating

- Language
 - Participatory : Use of We, I , you
 - Active voice or Passive voice
 - Interactive – questions – space for pause and think
 - Contextualization – examples from day-to-day experiences

▶ Navigation – user friendly, inclusive – adaptable for/adoptable by the differently-abled



Commonwealth Educational Media Centre for Asia
13/14, Sarv Priya Vihar
New Delhi - 110 016
<http://www.cemca.org.in>