

Open educational resources for teacher development

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Open Educational Resources for Teacher Development

– Mohan Menon

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Introduction

What are Open Educational Resources and how critical they are for increasing access and improving quality of education across the world in a cost effective manner is well captured in the following paragraph from an OECD Report:

"Assume a world where teachers and learners have free access to high-quality educational resources, independent of their location. Assume further that many of these resources are collaboratively produced, and localized and adjusted for the learner's specific needs and context. Assume that the cost of producing and maintaining these resources would be distributed across a large number of actors and countries. Assume further that the costs were declining rapidly and, for practical purposes, could be considered to be negligible" (OECD, 2006)

Does such a world exist today? Not really, but such a scenario exists in a small scale and that steadily increasing with multi-lateral agencies and governmental / non-governmental organisations worldwide are launching major initiatives in the creation and use of open educational resources. It is expected that in the next several years, it will become possible in a scale that will radically change the ways in which we learn and create knowledge.

The most critical agent in this transformation process is the teacher in the class room or a course coordinator or tutor in an ODL context or any facilitator in an organised learning environment. Hence, it is important for a teacher at any level or mode of education to be aware of the major OER materials available on the web, skilful to search and download such materials as per the curricular needs, conversant with legal information related to OER licensing and conditions of use and competent to integrate these resources into the learning environment being organised and facilitated in a given context. This critical role of the teacher makes it important that a teacher training and development curriculum should aim to develop these OER related knowledge and competencies and also that teacher educators should integrate relevant OER materials in both pre-service and in-service teacher training programmes as well as in continuing professional development of teachers.



About the Author

Mohan Menon, Assistant Vice Chancellor, Wawasan Open University, Penang, Malaysia, mohandasbm@wou.edu.my. Professor Mohan Menon is internationally known for his contribution in the development and management of quality assured schooling and teacher training systems with innovative approaches including Scenario-Based Learning, OER creation and integration and e-Learning in Sub-Saharan Africa, South and South East Asia, Caribbean and Palestine territory. He worked internationally with UNESCO and Commonwealth of Learning and in India with IGNOU, NIOS and Centre of Advanced Study in Education, Baroda prior to his present assignment. He was conferred D. Litt (Honoris Causa) for his contributions in Commonwealth countries by the Open University of Sri Lanka.

Origin of the concept of Open Educational Resources (OER)

Open Educational Resources movement got initiated when Massachusetts Institute of Technology announced it would publish educational materials from all of its courses freely and openly on the Internet (MIT Open Course Ware, 2001). During the last ten years, OCW has shared materials from more than 2000 courses with an estimated 100 million individuals worldwide. However, it would not be wrong to say that the OER movement had its origins in the philosophy of openness in access of education and the start of the practice of 'open learning' over forty years ago with the launch of The Open University in UK. What followed this was a gradual but steady development in the area of open distance learning (ODL) with a number ODL institutions coming up in all continents providing substantial access to secondary and post-secondary education. The expansion of quality ODL courses and systems were influenced positively by the unprecedented developments of variety of new information and communication technologies during the last 3-4 decades. These developments represent two equalising forces in the life of every human being viz. education and technology for making lifelong learning opportunities available to all human beings across barriers of class, age, entry qualifications and geographical distances.

Advances in technology linked with open and flexible philosophy also led to several other developments which encouraged and facilitated openness, flexibility, cooperation and sharing in the creation, use and distribution/sharing of creative products. These include developments such as Open Source, Open Access and Open Content initiatives.

Open Access refers to unrestricted access via the Internet to articles published in scholarly journals, and also increasingly to book chapters or monographs. Open Source initiative involves development of software whose source code is published with a copyright that legally allows anyone to copy, modify and redistribute the code and

its modifications without any royalties or fees. Open Source Software movement has helped in development of a very large number of software. SourceForge.net, the largest open source software development web site, now hosts over 130,000 open source projects for various applications which has literally revolutionised free use of software. Open Content is a coinage given by David Wiley in 1998 which describes a creative work that others can copy or modify under an Open Content License (a copyleft license). It has since come to describe a broader class of content without conventional copyright restrictions.

Open Educational Resources (OER)

Open educational resources (OER) are digital materials that can be re-used for teaching, learning, research and more, made available for free through open licenses, which allow uses of the materials that would not be easily permitted under copyright alone. These include different kinds of digital learning content. OER movement provides for content creation and sharing and are beginning to get integrated into open and distance education scenario. According to the UNESCO definition (2002), open educational resources are:

"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".

The UNESCO definition covers quite well most of the projects and initiatives but its requirement that resources are provided for non-commercial purposes is rather restrictive considering that the Open Source Initiative, itself, requires that open source licenses do not discriminate against commercial use and the Free Software Foundation licenses allow software to be used for commercial purposes.

OER movement is very vibrant today across the world. There are several OER sites that allow networking of institutions and individuals who are committed to the OER

philosophy supporting the creation and sharing of multi-media courseware as well as creation of awareness and building capacity for OER creation and integration. A few major OER sites are given here:

- ✱ MIT OpenCourseWare (OCW) is a web-based publication open and available to the world. It is a free publication of MIT course materials that reflects almost all the undergraduate and graduate subjects taught at MIT. (<http://ocw.mit.edu/index.htm>)
- ✱ The OpenCourseWare Consortium is a collaboration of higher education institutions and associated organizations from around the world creating a broad and deep body of open educational content using a shared model. There are 18 sustaining members in the consortium today (<http://www.ocwconsortium.org/>). African Virtual University which has developed resources for in-service teacher training is a member of this consortium.
- ✱ OER Asia is an online forum set up by Wawasan Open University and inspired by a research grant from the International Development Research Centre (IDRC) of Canada. This site is intended to share information, views, research studies and knowledge resources in addition to guidelines and toolkits on OER best practice in the Asian Region. WOU is presently involved in developing two models of OER integration (<http://oerasia.org/>)
- ✱ Teacher Education in Sub-Saharan Africa
TESSA is a research and development initiative creating open educational resources (OERs) and course design guidance for teachers and teacher educators working in Sub-Saharan African countries. TESSA has produced a large bank of materials directly aimed at enhancing and improving access to, and the quality of, local school based education and training for teachers. These materials (including audio and other media) are modular in format.

They focus on classroom practice in the key areas of literacy, numeracy, science, social studies and the arts and life skills. All the materials are available through this website in a variety of different formats and languages. To date, TESSA has created 75 adaptable units for primary school teacher training, and is in process of creating new units for secondary education and for those in a role supporting teaching and learning in a school, as part of an Access into the Teaching scholarship programme. TESSA resource materials can be downloaded from its website: <http://www.tessafrica.net/>

- ✱ COL resources: Resources given on the COL website contain a number of learning and training materials which are expected to be free resources for use. However, these also contain some third party resources which are bound by the copyright conditions of those parties. As OER licenses such a 'creative commons' or 'copyleft' are nation specific as each country has to endorse them, a multi lateral agency such as COL finds it difficult to indicate any particular license for free use of its materials. However, it is understood that COL's own resources on its website are available for free use of all with attribution. Even the third party resources could be used with written permission from the concerned organisations. Resources on COL website in the area of teacher training are the following:

- ✱ Science, Technology and Mathematics Programme 2000+ (STAMP 2000+) www.col.org/stamp
- ✱ Technical and Vocational Teacher Training (In-service) (TVET) <http://www.col.org/resources/ccs/Materials/Pages/TVET.aspx>
- ✱ Green Teacher Diploma in Environmental Education <http://www.col.org/resources/crs/Materials/Pages/greoteach.aspx>

- ❖ MA Teacher Education Programme
<http://www.ced.org/about/teachers/Materials/Pages/TeacherEdMA.aspx>
- ❖ Secondary School Level Education Quality Learning Materials
<http://www.ced.org/resources/secondaryMaterials/Pages/SecondaryLevelEd.aspx>
- ❖ Quality Assurance Toolkit for Teacher Education Institutions (QATTEI): Guidelines
<http://www.ced.org/resources/publications/Pages/detail.aspx?PID=243>
- ❖ An Anthology of "Best Practices" in Teacher Education
<http://www.ced.org/resources/publications/Pages/detail.aspx?PID=244>
- ❖ Quality Indicators for Teacher Education
<http://www.ced.org/resources/publications/Pages/listing.aspx?CID=98&start=21>

Teacher in the context OER movement

The role of the teacher in the society has undergone substantial changes over time, mainly responding to the changes in social structure and needs. From being a prerogative of only a few in the upper strata of the society education is now 'for all' and learning is a right of all citizens throughout life. The philosophy of lifelong learning is slowly taking roots now and the world is moving towards a learning society facilitated by the developments of the society coupled with more democratic principles of human life and existence. The traditional concept of teacher as Guru is one

who is regarded as having great knowledge, wisdom, and authority in a certain area, and who uses it to guide others has changed over time. Teachers have been viewed as purveyors of content knowledge and academic skills. Even in recent times the teacher has been considered as the single most important resource in most classrooms followed by the prescribed textbook. The teaching-learning process has been teacher-centred with passive participation of learners. Generally seen as dispensers of knowledge, teachers are increasingly being perceived as facilitators or managers of knowledge and even considered as co-learners with their students in the learning environment. Learning theories have been mostly advocating the need for individualised learning and learner centred curricular transaction with emphasis on cooperative and collaborative reflective learning. With Open Education Resources available, a teacher's role as a resource of knowledge and information is undergoing a major shift. He/she will have to take up more important roles such as being a facilitator of each learner going through a unique learning process each learner construct one's own knowledge in individually negotiated learner-specific curriculum. Such an environment is created and facilitated by the teacher by guiding each learner to appropriate learning resources (thereby integrating OER in the learning process of individual learners) and proactively initiate and facilitate thought provoking activities and discussions among learners thereby creating a very challenging learning environment for each and every learner.

Conclusion

More and more OER materials are created and made available by multi-lateral agencies, consortia and individual organisations. Teacher Training and development is one of the main areas in which OER creation is happening today. The major reason for such an emphasis in this area is due to the assumption that free and unrestricted availability of large multimedia educational resources can make teacher training efforts more effective and they will also develop better understanding about OER and their use. Teachers being trained in effective

integration OER to classroom activities and processes can make a very positive difference in children's learning. Many developing countries where large chunk of teachers are untrained are in the process of training their teachers through open distance learning and there is a need to use effective multimedia training materials in a cost effective manner, OER integration is expected to make this happen.

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CEMCA AWARDS FOR COMMUNITY RADIO PROGRAMMES

1. BEST THEMATIC CAMPAIGN WINNER Rudi No Radio Self Employed Women's Association
SEWA Reception Centre, Opp. Victoria Garden, Bhadra, Ahmedabad - 380001 Anti Addiction
- 1ST RUNNER UP Anna CR Educational Multi Media Centre Anna University
Guindy, Chennai-600025 Health & Nutrition for Women & Children
- 2ND RUNNER UP MOP CR MOP Vaishnav College for Women
No.20, IV Lane, Nangambakkam High Road, Chennai- 600034 Importance of Breast Milk
2. COMMUNITY ENGAGEMENT WINNER Rudi No Radio Self Employed Women's Association
SEWA Reception Centre, Opp. Victoria Garden, Bhadra, Ahmedabad - 380001 Mass Marriage
- 1ST RUNNER UP PGP Radio PGP
Namakkal, NH 7 Tamil Nadu 637207 Valam Kannavaarungal
- 2ND RUNNER UP Radio Sirsa Chaudhary Devlal University
Sirsa, Haryana 125055 Hello Sirsa
3. PROMOTING LOCAL CULTURE
WINNER Radio Bundelkhand Development Alternatives
Orchha Tigela, Orchha, Dist. Tekamgarh, Bundelkhand, Madhya Pradesh Aas Pas
- 1ST RUNNER UP Puduvai Vani Pondicherry University
R.Venkataraman Nagar, Pondicherry-605014 Yelelo (The Rhythm of Fishermen)
- 2ND RUNNER UP Radio FTB Film & Television Institute
Law College Road, Pune- 411004 Rhythms
4. SUSTAINABILITY MODEL WINNER Radio Active Sri Bhagwan Mahaveer Jain College
Center for Management Studies, 11-1/1, Atria Towers, Palace Road, Bengaluru-500001
- RUNNER UP Lalit Lokvani Sri Jyoti Gramodhyog Samaj Seva Samiti
417, Gandhi Nagar, Lalitpur, UP 284403

