



# *Quality Assurance for Open Educational Resources: What's the difference?*

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*Sanjaya Mishra, and Asha S. Kanwar*  
*Commonwealth of Learning*

## **Introduction**

In 1987, Commonwealth Heads of Government agreed to create a Commonwealth institution to support cooperation in distance education. They made this decision after considering a report entitled “*Towards a Commonwealth of Learning: A proposal to create the University of the Commonwealth for Co-operation in Distance Learning*” prepared by a committee of experts chaired by Lord Briggs. The report proposed to create a new institution designed to promote collaboration amongst the Commonwealth countries. It stated that the objectives of this new institution would be “to widen access to education, to share resources, to raise educational quality and to support the mobility of ideas, of teaching, of relevant research and of people” (Briggs, 1987, p. 60). In addition, the Memorandum of Understanding that established the Commonwealth of Learning (COL) included supporting objectives like “assisting the creation and development of institutional capacity in distance education in member countries;” “assisting the acquisition and delivery of teaching materials and more

generally facilitating access to them;” and “commissioning and promoting the adaptation and development of teaching materials.” As such, COL has supported the development and sharing of quality distance learning materials since its inception.

COL’s approach to Quality Assurance has been threefold: (1) to influence policy at national and institutional levels, (2) to develop resources, and (3) to build the capacity of institutions and individuals in implementing quality assurance (QA) to manage Open and Distance Learning (ODL) systems with efficiency and effectiveness. COL continues its advocacy efforts to ensure that open universities and campus providers have the same purpose that all universities serve. It is true that many open universities have a social mission and use more flexible delivery mode, but if judgements are based on fitness for purpose, quality of courses, effective learner support, and student achievement, there is no need for separate QA regulations for ODL activities. COL recognised the importance and the need for assuring quality of ODL provision early to warrant “parity of esteem” or respect for the degrees offered through ODL.

COL has developed several QA Toolkits and publications as well as a QA micro-site with free resources. The *Transnational Qualifications Framework*, developed by COL for mutual recognition of qualifications, is used by the 32 small states of the Commonwealth and the Review and Improvement Model (COLRIM) for quality assurance. Using the framework, institutions assess their respective practices as a step towards external accreditation or as an ongoing process of continuous self-improvement. Recognising the potential of making learning resources available free of cost as well as free from restrictions for wider use, COL embraced the Open Educational Resource (OER) movement to promote access and adaptation of teaching materials. In the following section of this chapter, we discuss the specific features of our quality assurance initiatives for OER.

## March of Open Educational Resources

The OER movement started with the emergence of MIT OpenCourseWare announced in the New York Times just after the start of the millennium (Goldberg, 2001). Ever since the term OER was coined in a meeting at UNESCO in 2002, numerous OER projects and initiatives have emerged across the globe. It is worth mentioning, however, that COL has been developing learning materials collaboratively and sharing these with its stakeholders before the term OER was first used. For example, COL's Science Technology and Maths Programme (STAMP 2000+) modules were developed collaboratively by 140 academics from eight countries in Southern Africa and made available for free use prior to 2001, albeit without any open license. The STAMP 2000+ modules were developed by Africans for Africans and within Africa and were uploaded on the World Space satellite for free use by anyone anywhere on the continent. In addition, COL has been involved in many material development projects, including initially supporting the WikiEducator online platform to share materials. Such participation has resulted in many learned lessons, including the following (Kanwar, Kodhandaraman, & Umar, 2010):

- While capacity development is necessary, it is also important to ensure buy-in from local partners and to have a clear implementation strategy.
- In spite of the strength of the communities to self-organize and contribute resources, there is a need to put in place a governance structure to steer the project and monitor progress against agreed-upon quality standards.
- Any OER project with a bottom-up participatory approach requires much longer time frames.

In 2012, UNESCO and COL, with the assistance from the William and Flora Hewlett Foundation, organised the World OER Congress at Paris. This event, which was attended by both authors of this chapter, resulted in the Paris OER Declaration (2012). This declaration

recommended that Governments promote and use OERs. It also encouraged the open licensing of educational materials produced with public funds and reiterated that OERs are teaching, learning, and research materials in any medium, digital or otherwise. These resources are either available in the public domain or released under an open license that enables no-cost access, use, adaptation, and redistribution with no or limited restrictions.

We at COL view OERs as (1) free and freely available, (2) suitable for all levels of education, (3) modular, (4) reusable, and (5) online. The assumption here is that OERs would be small reusable learning objects residing in online repositories that institutions would access, adapt, and construct as courses (Kanwar et al., 2010). While the often cited advantage of OERs is about the exchange of knowledge and south-south and north-south collaboration, it obviously saves both course authoring time and money. We also have witnessed the fact that OERs foster collaborative approaches to content development-- unlike the single author model of text-book writing. Therefore, OERs are a powerful tool to support capacity building in developing countries as well as to assist in improving the quality of the materials due to collaboration. In addition, OERs encourage the preservation and dissemination of indigenous knowledge (Kanwar et al., 2010).

Given that education is context-based in most disciplines, the obvious cost-benefit of OERs is not visible to many teachers and educational administrators. Preliminary research supported by COL on cost economics of OERs revealed substantial time and cost savings (Butcher & Hoosen, 2012). Moreover, there are different levels of understanding about copyright and intellectual property rights issues. There are also issues related to the adaptation of OERs as many teachers and administrators have a “not invented here” syndrome (Johnson, Levine, Smith, & Stone, 2010). Challenges to their adoption still exist, including institutional barriers and the quality of resources available (Bossu & Tynan, 2011).

## OER: Quality Issues

With the rise of social media, there has been a global movement towards collaboration in the development and sharing of content. The fundamental principle is that any materials developed with public funds should be made available free for others to use as required under an open license. Since anyone can adapt the content, many ask questions, such as, who is responsible for the quality of repurposed content? How do institutions ensure the integrity of their credentials? And what is the role of QA agencies?

While there is a growing demand for OERs, many people believe that “free educational resources must necessarily be of poor quality” (Wiley & Gurrell, 2009, p. 19). Quality dimensions, such as accuracy, relevance, currency, and pedagogic effectiveness in terms of learning design, would apply to OERs just as they would to any educational content. Wiley and Gurrell (2009) further argue that despite the issues related to the traditional parameters of quality, the increasing acceptability of OERs is related to the relationship of the user to the resource. This relationship comes from the adaptation and co-creation of the content, which emanates from two basic characteristics of OERs, namely, reusability and openness.

Dhanarajan and Abeywardena (2013, pp. 9-10) found that teachers' lack of ability to locate quality OERs was a leading barrier against reusing OERs. This issue is primarily due to a lack of availability of any mechanism to ensure and assess the quality of OERs. In addition, Nikoi, Rowlett, Armellini, and Witthaus (2011) reported that several studies have found several important discrepancies between the rising culture of openness and existing approaches to teaching. More specifically, they found key issues such as lack of time to adapt OERs, disciplinary differences, cultural issues, and differences in level of support for OER development emerging as major impediments for academic staff.

Many OER advocates and educators also believe that quality assurance of OERs is contrary to the belief of openness it purports. From this perspective, it is the users who should decide the quality, as a function of purpose. Any *a priori* assurance of quality would not be of help to the users of OERs. As such, the proponents of this line of thought believe that the user (learner or teacher) is the best judge and knowledgeable enough to make decisions on the quality of the resource. In contrast, educators and thought leaders typically believe that every teaching-learning resource should undergo a rigorous peer review process to ensure quality. Such an approach definitely slows down the process of OER development, and it creates a structure not needed for the Web 2.0/3.0 world.

The Commonwealth Educational Media Centre for Asia (CEMCA) is the regional centre of COL for the eight Commonwealth countries of Asia. As OER started to become popular, at CEMCA we recognised the need for developing quality assurance guidelines for OERs covering the two divergent approaches. First, OERs should be user generated content and inherently open. In effect, it would be detrimental to create formal structures and processes for assuring the quality of OERs within QA agencies. Second, we also believe that OERs should be of high quality and should be suitable to the needs and contexts of the stakeholders who use and produce them. Thus, we developed a framework to assist the users decide the quality of OERs using a range of criteria. We expect that the framework and its criteria can be automated within any repository to help users rate the content by choosing criteria applicable to them. Such an approach would gather ratings from different users to provide information to prospective users of a resource—thereby saving time for both learners and teachers as they navigate the abundance of OERs.

As part of the CEMCA project to develop QA guidelines for OERs, Kawachi (2013) reviewed more than thirty frameworks/lists of criteria for quality assurance in related fields

such as e-learning or educational innovations. This review revealed several criteria suitable for quality assurance of OERs.

As a means to develop our own guidelines, we convened a regional forum and conducted online consultations in the process to develop the OER TIPS Framework, Version 1.0 (Kawachi, 2013). The important aspect that emerged from those consultations concerned the unique features of the openness of OERs, and how such features affected quality. Experts agreed that openness brings additional values for making learning materials more accessible to learners with special needs, localization to suit specific linguistic and cultural needs, and enablement of improved access using open software and technologies. TIPS represents a set of 65 criteria grouped under four broad headings: (1) Teaching and Learning, (2) Information and content, (3) Presentation, and (4) Technology. Since the criteria list was lengthy, we conducted further research to develop a consensus using the Delphi technique and Content Validity Ratio (CVR) (Lawshe, 1975) as the statistical anchor to reduce the criteria to a more manageable list. While the work remains in progress, preliminary results reveal a set of 18 criteria using a modified statistical approach to CVR (see Table 1).

**Table 1: Quality Guidelines for OER (Kawachi, 2014)**

<b>T : Teaching and learning processes</b>
<b>Consider giving a study guide for how to use your OER, with an advance organiser, and navigational aids.</b>
<b>Use a learner-centred approach.</b>
<b>Use up-to-date appropriate and authentic pedagogy.</b>
<b>It should be aligned to local wants and needs, and anticipate the current and future needs of the student.</b>

**Don't use difficult or complex language, and do check the readability to ensure it is appropriate to age/level.**

**Provide a way for the student and other teachers to give you feedback and suggestions on how to improve.**

### **I : Information and material content**

**Make sure that the knowledge and skills you want the student to learn are up-to-date, accurate, and reliable. Consider asking a subject-matter expert for advice.**

**All your content should be relevant and appropriate to purpose. Avoid superfluous material and distractions.**

**Your content should be authentic, internally consistent and appropriately localised**

**Add links to other materials to enrich your content.**

### **P : Presentation product and format**

**Be sure the open licence is clearly visible.**

**Ensure your OER is easy to access and engaging.**

**Present your material in a clear, concise, and coherent way, taking care with sound quality.**

**Use open formats for delivery of OERs to enable maximum reuse and remix.**

**Consider suggesting which OER could come before your OER, and which OER could come afterwards in a learning pathway.**

### **S : System technical and technology**

**Consider adding metadata tags about the content to help you and others later on to find your OER.**

**Give metadata tags for expected study duration, for expected level of difficulty,**

**format, and size.**

**Your OER should be easily portable and transmissible, and you should be able to keep an off-line copy.**

Our intention is to develop an assessment model using these criteria to help users assess any OER materials by reviewing the criteria or feature using a four point scale: (1) not visible, (2) shows little evidence, (3) fairly demonstrates this criteria, and (4) very much demonstrates this criteria. The same can also be used by developers of OERs to analyse their actions to assure quality in the process of OER development.

### Approaches to Quality OER

In developing countries, the Quality Assurance of ODL has been a major area of concern during the past five decades, in large part, since face-to-face education is culturally the norm for the elite few. As most of those who are in the educational system have experienced face-to-face forms of instruction, they have a negative disposition towards the ODL system of education. Therefore, the ODL system has always had to place a high importance on quality to maintain parity with face-to-face education systems.

As Dhanarajan (2013) points out, the ODL system is primarily concerned with the learning paradigm, in contrast to the instructional paradigm which is highly salient in the conventional face-to-face system. In the instructional paradigm, the time of learning is constant and learning outcomes vary, whereas in the learning paradigm, time varies and learning outcomes remain constant for all the learners. Emphasizing this transformative change in paradigm has not been an easy task for ODL practitioners—that is, until the emergence of the massive open online courses (MOOCs) that depend on learning and

instruction practices similar to that of the ODL system (e.g., see chapter from Deimann, Lipka, & Bastiaens, this volume).

While the acceptability of ODL programmes are growing due to their inherent extensive emphasis on quality assurance, adoption, and adaptation of OERs in both the face-to-face and ODL, the situation still has a long way to go to reach its potential. Realizing that mainstreaming OERs in educational systems of developing countries would require sustained and long-term interventions, COL has been engaged in promoting OERs quality through four different approaches:

- *Appropriate Policy Development:* In order to create an enabling environment for teachers in educational institutions to use and create OER, it is important that appropriate credit is given to teachers who create educational resources. In many institutions, publication in a peer reviewed journal gets credit for promotion, whereas preparing and making freely available educational materials rarely is recognized. In response, COL has been working with national governments and institutions to help them develop appropriate policies for OERs. As part of these efforts, COL has developed a national OER policy template as well as an institutional OER policy template for adoption by Governments and educational institutions. COL has supported the Government of Antigua and Barbuda to develop a national OER policy, while two open universities in India have adopted the OER institutional policy template. COL/CEMCA has also assisted the Government of India to develop the open licensing policy guidelines for its flagship project entitled National Mission on Education through ICTs (NMEICT).
- *Capacity Building:* While policy development is necessary, it is not the sufficient condition to foster development of OERs in a major way. Training on quality and

OER development is central to creating additional OERs. Without local capacity, OERs will only create consumers of external information or knowledge resources. More substantial gains from OERs are possible if one aligns the available resource(s) with local needs while releasing such content again with an appropriate open license. Therefore, capacity building on OERs, especially among teachers and policy-makers, is a key strategy. In addition to holding workshops, COL is also organising online training and using MOOC platforms to promote the concepts and practices of OERs. Over the years, COL has developed a huge and widely disseminated knowledge base in this area. For instance, as part of the institutional capacity building at Wawasan Open University in Malaysia, CEMCA assisted in the development of a five module course on OER-based eLearning. The focus of the course is on integrating OER into online programme design and development as a means to bring in cost-effectiveness to online learning.

- *Technology*: Availability of affordable technology is essential for teachers to find and create OERs. While technology penetration in educational institutions is a crucial factor in promoting the use of quality OERs, it is vital to educate top management on appropriate technology in developing countries. COL has been working with institutional leaders to facilitate the integration of Information and Communication technologies (ICTs) in education. Strong leadership support and institutional commitment play a significant role in successful ICT integration (Kirkland & Sutch, 2009) and in promoting the use of OERs. A successful ICT leader in education should be able to lead from the front to not only give vision, but also manage change and influence major stakeholder buy-in. COL is also assuming the role of technology innovator and pathfinder by developing appropriate solutions in tune with technological developments. One of the current innovations that COL has been

recommending is the use of low-cost servers, named “Aptus,” in classrooms and schools. Aptus servers can reduce the cost of Internet access and provide bundled OERs for access to learners at geographically disadvantaged and resource-poor locations.

- *Course Development:* One of the objectives of COL is to commission the development of relevant teaching materials. As an organization promoting the use of OERs, it is important that COL develops such instructional resources and releases them as OERs. To operationalize this goal, COL developed its own institutional OER policy. All the courses developed at COL are released to the community under a CC BY-SA license. The objective of such a policy is to encourage the development of exemplar courses that can be adopted and adapted in the Commonwealth and elsewhere. Such an approach also helps in reducing costs due to the economies of scale. COL has also developed a directory of OERs using different classification tags to help find and use these resources. While quality of OERs remains a main concern, the goal of this initiative is to collate available content at one place. In true OER spirit, this approach avoids the duplication of efforts. COL is also promoting the development of open textbooks to ensure quality course development.

While development of quality OERs is necessary, it is not a sufficient condition for its appropriate use. Finding suitable and high quality OER forms the starting point for use of available open education content. However, in the absence of appropriate pedagogical interventions, it remains only a textbook, simulation, animation, or other type of learning resource. Content is not enough. Teachers’ capacities to use and integrate OER in their classrooms as well as facilitate learning in ODL environments are crucial to the achievement of learning for those who are less privileged or previously lacking access. Using appropriate

self-directed learning principles to develop OERs, and then using these OERs to facilitate learning would improve the quality of learning outcomes for untold numbers of learners.

## Conclusion

As is clear from the foregoing discussion, there is an extensive array of OER efforts currently taking place around the world. We have witnessed many of these efforts first-hand. In fact, the Commonwealth of Learning has been particularly focussed on promoting the use of quality OERs in both face-to-face and ODL institutions. But, the question still remains – what is the difference? How has our approach to quality changed due to the availability of educational resources with an open license? What is the right balance between crowd-sourced OERs and institutionally generated quality assured OERs?

Unfortunately, we cannot yet offer specific answers to many of these questions. As might be expected, a particular OER may be considered highly valuable by different learners and users from the perspective of their need to take a particular examination or entrance test. However, teachers and other experts may think that the material in question is narrowly preparing the learners only for the examination, and, therefore, is not high of quality.

Naturally, what is deemed good or bad for one individual is not the same for other individuals, especially when it concerns educational resources. Consequently, we can only offer a set of guidelines and a framework to assist both the creators as well as the users of OERs. To us, the major differences that OERs bring to the discourse about quality in the field of open education relates to the acceptance of the need for the localization of such content as well as a greater awareness of the possible learning contexts in which it will be used. The expansion of OER and associated quality guidelines and frameworks concerning its appropriateness and use also raises in salience questions about how it will be used as well as who ultimately is using the quality criteria and in what ways are they using it. Recognizing

that education is about socially constructed knowledge, COL supports the use of OERs both by the teachers and students to create new knowledge when using an acceptable framework. As this occurs, the consumers become the producers of content.

Ultimately, we believe that ODL as well as face-to-face teaching institutions can leverage the availability of OERs to improve the quality of learning outcomes for all learners. When this happens, teachers will have more time to think about student engagement and eventually create and facilitate highly interactive and engaging learning environments using open technology and resources. Such is the mission of COL.

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