

# *Openness in Education: Some Reflections on MOOCs, OERs and ODL*

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Distinguished Delegates,

It is a pleasure and an honour to be here and I am very grateful to the ICDE Standing Conference of Presidents (SCOP) and Hamdan Bin Mohammed e-University for the opportunity to speak to you.

I bring to you the best wishes of the President and CEO of the Commonwealth of Learning (COL), which is the only inter-governmental organization in the world dedicated to the development of open and distance education. My office in New Delhi – the Commonwealth Educational Media Centre for Asia -- serves as the regional centre of COL in Asia.

My topic today is ‘**Openness in Education: Some Reflections on MOOCs, OERs and ODL**’, and my attempt is to analyze the recent developments in the light of our lessons from the past to identify implications for the Open and Distance Learning. My presentation has five sections: **understanding openness, open and distance learning (ODL), open educational resources (OER), massive open and online courses (MOOC), and implications for ODL institutions.**

To open something, it must first be closed. We can’t open something that is open before. By default we accept that education systems have been closed, and therefore, openness is something extremely important for all of us in education. We can trace the concept of openness to the need of increasing access to information and knowledge in the society and invention of writing and the printing press. At that time also great scholars objected to new ways of sharing knowledge and described change as ‘degeneration’. While the printing technology increased access to learning resources, the process of learning was more institutionalized and access remained the issue that made the education system closed to majority.

The increasing access viewpoint of openness was addressed through permitting candidates to appear for final examination without attending the university, and expecting the learners to study from books available in the market. This practice is still prevalent in many institutions.

When the Open University in United Kingdom (UKOU) was established, its first Vice Chancellor Lord Crowther said, the university will be open to people, places, methods and ideas. This was a landmark in the history of openness in higher education. Thus, openness received new meaning beyond access as:

- No requirement for entry qualification
- No physical boundary of the institution
- Use of broadcasting and available technology to teach
- Innovation with a focus to improve learning

As the UKOU model of education travelled all over the world, it became popular in the Asian region, where the need for access to higher education was more and opportunities were limited. The open learning philosophy adopted by these universities by and large interpret 'openness' as:

- Open entry
- Anywhere learning
- Learning at my time and my pace
- Freedom/Flexibility of choice of courses

Thus, the open university and open learning perspectives of 'openness' focus on: increasing access to higher education, reducing the rigidities in entry requirements, providing opportunities to study subjects of choice to earn degree, learn anywhere with the use of appropriate technology, and study at one's own time and pace. However, today, these descriptors are not sufficient to describe the full dimensions of openness in education.

The concept of openness has become such a buzz word that apparently we can use open to any other term to create another phrase. David Wiley lists 12 topics of study that starts with 'open' for his course on 'Introduction to openness in education'. Some of these concepts add value to our discourse in education.

In the field of computer science, the word open connotes free and unrestricted distribution of the source code with rights to create derivative works. The open source movement started in early eighties depends on the power of the crowd to develop software, but does not stop someone from earning money out of the service rendered in making use of that software developed by communities. There are huge lessons to be learnt from this movement for the educational leaders. Open Content, coined by David Wiley in 1998 refers to content that can be reused, revised, remixed and redistributed without violating copyright laws. Openness in education needs to embrace holistic approach covering all dimensions of openness and provide flexibility to the learners in both on-campus education and distance education system. Openness in education is about creating systems and processes that are transparent in higher educational institutions; assist learners to receive accredited qualification and skills to be gainfully employed in the society; and

contribute to economic growth of the state. It is also about openness in our educational practices and pedagogical models. Today, the focus is more on technology and less on innovations in open pedagogical thinking.

While open learning is the philosophical basis on which open universities are established, they mostly adopt the predominant methodological route of using technologies of distance education to deliver teaching and learning. Only some courses and programmes follow the principles of openness. Many a time this becomes necessary due to national policies of what can and what can't be taught through distance education.

Distance education has become successful in the Asian region, as it provides the economies of scale, and there is political support for increasing access to higher education. For example, in India the target is to increase the participation rate in higher education up to 40% through distance education. Adopting more flexible practices and principles of openness would be useful in achieving such targets.

While distance education systems use a variety of approaches to deliver courses and programmes, including collaboration and partnerships with private and public institutions, very little can be seen as openness in the educational transactions, especially in the choice of courses, learning media and assessment. Most of the time students receive a set of printed texts, audio and video materials are made optional, and after submitting a set of assignments for continuous assessment, they become eligible for appearing in the final examination, which takes the form of normal pen and paper test.

Open universities need to reflect on their policies of openness and how they are performing in terms of providing open education through distance education technologies. Can we create an open learning system that enable learners to join any course of their choice, negotiate the learning outcomes, learn at their own pace and time through their choice of media and technology, subject themselves for assessment through a method most suitable to their age and learning style when they are ready? The assessment system in distance teaching universities are the most close practices, though there are experiments with on-demand examination systems to help learners choose when they want to be assessed. What is important to note is that you still have to write a three-hour test at the end of the course. And if you are an adult learner returning to study after a gap of several years, you may not have the practice to write for longer hours and get fatigue. Can our systems think of moving beyond the current practice and adopt appropriate technology to provide alternatives such as portfolio, projects, term paper, and other evidence-based mechanisms to assess learner achievement?

The use of teaching-learning materials in education has progressed from program learning to self-learning to now, resource-based learning. Initially, educational technologist emphasized that the teaching-learning materials should be designed in a behaviorist learning design to give feedback and help the learner to repeat tasks and learn by practice. With the emergence of distance teaching institutions, the type of learning materials used shifted to align the learning outcomes to different theories of learning, leading to three types of materials: tell and test (behaviorist), dialogic (cognitive), and reflective-action guide (constructivist). Open universities in the process of adopting an industrial model as propounded by Otto Peters usually adopted a uniform material design. Theoretically this is an improvement over earlier practice. The third phase of resource-based learning became prominent with the emergence of the Internet and digital delivery of learning materials. As sharing of information on the web became easy, more

institutions started depending on what is available on the web. This led to the emergence of open content in 1998 and MIT OpenCourseWare was announced in 2001. The MIT OpenCourseWare released its first set of 50 courses in 2002. During the same year, UNESCO organized a Forum on the Impact of the Open Courseware for Higher Education in Developing Countries that created the term Open Educational Resources (OER). Of course, the Commonwealth of Learning was already developing and sharing learning materials by that time through its STAMP 2000+. The 2002 UNESCO meeting, nevertheless, became a landmark in the history of the OER movement.

The Forum defined OER as “the provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes”[1] (UNESCO, 2002). The participants at the Forum expressed that OER champions the sharing of knowledge worldwide to increase human intellectual capacity, and agreed to develop together a universal educational resource available for the whole of humanity. Such a vision led to development of over 250 OER initiatives around the world.

In June 2012, UNESCO again convened the World OER Congress along with the COL and with the financial support of Hewlett Foundation to celebrate the progress of the OER movement and completion of 10 years of the term OER. This yet again proved to be a landmark development. Through a consultative process, the congress released OER Paris declaration, which defined “OER as 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. Open licensing is built within the existing framework of intellectual property rights as defined by relevant international conventions and respects the authorship of the work”[2].

The Declaration endorsed that OERs promote lifelong learning, contribute to social inclusion, gender equity and education for the special needs, and improve cost-efficiency and quality of teaching and learning. It also recommends that educational institutions

- Promote awareness and use of OER
- Improve media and information literacy
- Develop institutional policies for OER
- Educate stakeholders on open licenses and copyright
- Promote quality assurance and peer review of OER
- Develop strategic partnerships to avoid duplication of work as well as technologies
- Encourage and support research on OER
- Develop tools to facilitate access to OER

There are several OER initiatives that deserve mention apart from the widely known MIT OpenCourseWare. Some of these are Connexion, OpenLearn, Japan Open Courseware Consortium, the

China Open Resources for Education, NPTEL, the Indian Government's OER project through IITs, and the Vietnam Foundation. While these projects were initiated for education as a public good, it also helped the institution in their marketing and student recruitment as additional advantages.

However the major question that we should ask that whether these initiatives actually helped students to learn. We have not yet reached at a stage to conclude on this aspect. Another issue is about the quality of these materials. Being open, and are subjected to reuse, revise, remix, and re-distribute without legal hassle, there is lack of a quality assurance process. Most of the times, it is left to the users to decide whether a piece of OER fits the purpose or not. Many resource initiatives remain incomplete, as it depends on the motivation level of the volunteer developers. Without any reward mechanism for production of OER, teachers take this as an additional work, and therefore, may not put in the needed time and energy to develop quality OER. Another problem at this stage of development is the integration of OER in the teaching-learning process, and certifying students based on learning from OER.

The OER University promoted by the OER Foundation in collaboration with like-minded institutions such as Athabasca University, University of Southern Queensland (USQ) and Otago Polytechnic, to some extent addresses this problem by creating an ecosystem to provide certification through accredited institutions. The USQ has launched the first pilot course of OERU recently. The responsibility of quality assurance of OER remains both at the institutional and consortium level, and the new model expects the students to use the OER to study as self-directed learners, and appear for assessment by credible organization, much like that of the examination model to provide access. Instead of books to be purchased from the market, now there are filtered freely available OER and non-OER for the learners organized for self-study. The OER university model indicates towards separation of content, teaching-learning services, and assessment, usually done by a single agency such as the universities teaching at a distance and on-campus. In future, these three services may be done by separate agencies/institutions. Such a scenario is not new, as at the secondary education level, this is already in practice. That the curriculum and examination is controlled by the state, teaching and learning carried out by schools (either public or private), and the learning content is mostly controlled by the private sector publishers.

The emergence of Massive Open Online Courses (MOOC) in 2008, followed by several for-profits and not-for-profit initiatives in the recent past has supported a scenario, where teaching and learning can be served by anyone and any organization, not necessarily by universities alone. MOOCs truly take the advantage of the digital world and Internet to deliver teaching and learning to large number of students, and therefore are based on the principles of economies of scale as in ODL. In addition, these are courses open to anyone with access to Internet and interest to study a course/subject.

In its present form, these are free courses; designed to be accessed by large number of students across the world; students are expected to learn through cooperation in the cyberspace; and the course credits are only for certifying certain competencies. For example, for the first MOOC in 2008 there were over 2000 registrations, including me. The Stanford MOOC on Artificial Intelligence attracted more than 160,000 students from every country except North Korea. It is important to note that 23,000 students completed the course!

The number game on the web has attracted many to MOOC, as it has the potential to generate revenue. Even if the course is available for free, with such large number of students the potential for revenue

generation is enormous and unexplored. One way is to collect fees for certification. There are other ways such as employee recruitment, sponsorships of students, and tutoring services etc. The platforms that are being developed can probably make more money than the institutions in the process. While the institutions are following the bandwagon, these platforms could probably serve as service providers to many universities who can't afford to develop technology.

From pedagogical perspectives, we can see the trends in MOOC in two directions: cMOOC and xMOOC. The approach in cMOOC is to provide a platform to the learners to connect to individuals and resources and emphasizes learning through creativity, autonomy and social networking. On the other hand the xMOOC approach is to focus on traditional video presentation and testing. To understand the developments in the pedagogic model, I joined one of the xMOOCs, and found video lectures converted into flash plus built in interactive quizzes. Needless to say that I lost interest in the middle before completing the free course preferred to become a dropout. The platform never bothered to provide any support or tried to understand why I could not complete the course. The phenomenon of drop out is also very high in the MOOC as that of the ODL system. This is an area that needs serious thinking and reflection.

We also need to see how open these MOOCs are? Yes, some of these MOOCs are freely available, but they are not really open. Most do not promote use of Open Educational Resources, rather they still believe in the copyright regime and patent regime.

While there is nothing wrong in this approach, education is more about conversation and sharing. It is an experience that one goes through -- a process of learning through exploration, interaction and collaboration. Can MOOC provide an open platform for these activities? A great MOOC platform that can provide the freedom to the teacher to design a great open course is yet to come. As technology develops and improves, it is possible to have a MOOC platform that can serve the humanity with open courses using OER. It will require huge collaborative efforts in terms of critical thinking, software development, human resources and funding.

Let me now address the implications of these developments for ODL institutions. Can any ODL institution start MOOC and make money? It is unlikely that every ODL institution will have the capacity to develop the platform. They will not have the star professors to attract huge registrations to ride on the wave of economies of scale. Thus only a few universities with huge financial power can jump into the bandwagon. Moreover, it is not only about platform, it is also about teachers and their capacities to handle the new medium. In the ODL system, when we used the teleconference model, it became clear to us that more the number of students, less the interaction between the student and the teacher. When we started using Learning Management Systems, the same was also a matter of concern, and we focused on increasing the number of tutors to have effective interaction in asynchronous discussions. Now also the situation is same, and we need to prepare teachers to handle MOOC sessions effectively. While student-student interaction and peer learning can take some share in the process of learning, student-teacher interaction is important. How to integrate this into the MOOC is a challenge both for the teachers and for the MOOC developers. Certainly travelling alone in the MOOC world is not an option, and therefore, it is better to collaborate in platform development, where institutions can continue to have their relevance as teaching-learning service provider.

The progress of OER also is something that the open universities need to consider. While not many institutions are having OER policy, it is something that the Paris declaration recommends and should be actively considered. Many open universities that use printed distance learning text and other multimedia materials take pride in the quality of these materials as their strength. Certainly, these materials are of high quality, as these are produced normally by a team of subject experts and instructional material developers. Students however are concerned more about the support received for learning at a distance, and not necessarily the learning content alone. Many students in the Asian contexts are not self-directed learners, and require more support and guidance to study from media-enabled materials. Students also expect more face-to-face interaction. While some of these needs are cultural in nature, they need to be addressed by the open universities.

Development of learning materials takes most of the time of the teachers in the open universities, leaving less time for supporting students either face-to-face or online. The use of OER by open universities will free the time needed to engage with the students and help them to complete their courses and reduce attrition. It is also cost-effective to use already existing material and reduce the development time of courses. Usually course development in open universities takes 12-18 months, and this can be significantly reduced. Nevertheless, there is a danger in emergence of a culture of use alone without contributing to further development of new OER. Institutions need to develop policies to encourage teachers to develop OER. Also, it may be noted that availability of OER is a necessary condition to improve access to quality learning, but availability is not sufficient to render OER usable in all contexts. Education is always contextual, and therefore, OERs will require adaptation to make these relevant to the target group. Availability of OER will not make learning happen, and therefore, teachers need to integrate OER in their teaching and learning by understanding open licensing, and the process of OER creation. Institutions need to create necessary environment to use OER.

Today's open universities, to be relevant, need to look forward to embrace technologies and work in partnership to leverage the advantages of the emerging developments. Digitizing all courses in open formats should be the beginning of all collaboration. Understanding of open technologies and their use will increase collaboration. Release of courses as OER by all open universities will make the dream of the 2002 UNESCO Forum real by creating a pool of OER for the humanity. Availability of courses online as OER will shift focus from materials to teaching-learning *per se*, and improve success rate in open universities.

Use of OER-based online courses on a MOOC platform developed collaboratively by a consortium of open universities promoting openness as a philosophical framework may provide the answer to the problems of democratization of higher education, and increasing access. The online environment can facilitate recording of student achievement through portfolio and badges to help them record their progress for life to demonstrate employability.

To conclude, the philosophy of openness in education that open universities need to strive to achieve in today's technological contexts are:

1. Open entry to study courses and accumulate credit for certification
2. Flexibility in choice of subjects to study for employability

3. Asynchronous learning at students' own pace, supported by increased choice of learning resources and media
4. Learning online using open courses that can be reused, revised, remixed, and re-distributed.
5. Choice of assessment methods and time of assessment
6. Permanent storage of student achievement as evidence of progress and build communities for the institution

My humble submission to all the dignitaries and Vice Chancellors is to reflect on the concept of “openness” in their universities and develop strategies for creating an open system of knowledge transaction using new information and communication technologies to promote learning for development and create knowledge societies.

Thank you for your attention.

## References

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[2]

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