MOOCs, e-Content Development and OER

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Esteemed Prof. Deepak Behera, Vice Chancellor of Sambalpur University, Dr. Srikant Mohapatra, Vice-Chancellor, Odisha State Open University, Prof. Das Mohapatra, PG Council Chairman, Sambalpur University, Prof. Maharana and other distinguished speakers and participants in this online session today, it gives me immense pleasure to be invited to speak to you and interact with you today on the topic of MOOCs, e-Content Development and OER.

At the outset, I would like to pay my respect to my alma mater – Sambalpur University, my teachers who guided me in my journey, and the spaces that defined who I am. The pictures depict where I spent most of time during my days at Jyoti Vihar.

Let me also put a disclaimer, the views expressed are personal and not that of my employer – Commonwealth of Learning, which was established in 1987 by the Commonwealth Heads of Government in Vancouver. We also have an office in New Delhi.

We serve the 54 Commonwealth countries around the world.

Our mission is to help Commonwealth member states and institutions to use technologies for expanding access to quality education and training.

My plan today is to focus on the theme and provide an overview about the context of higher education and how technology-enabled learning, MOOCs and OER would shape teaching and learning for us in future.

First, the higher education context.

Higher education is important for innovation and economic development. Most developed countries have high gross enrollment ratio in higher education. In the National Education Policy 2020, the target has been set as 50% GER in by 2035. In about 15 years, we want to almost double the GER. So, what would be our growth rate per year? On average, if our growth rate would be about 5%, then we can achieve this target. That is almost 50 universities and 2000 colleges per year, keeping the population constant!

In recent years, there has been huge focus on National Institutional Ranking Framework. Are rankings reflection of our true quality? In my view, it is not. Ranking is a market strategy that show our relatively good education systems poorly in the world. Irrespective of the rankings, India is 9th in the world for research productivity! These rankings are inflicted with rural vs urban bias, availability of best teachers and students, funding support of research and innovations, they create categories amongst institutions

leading to parity of qualifications. Nevertheless, it is important to think of quality as an institutional strategy that India's National Assessment and Accreditation Council promotes.

Several years back, I wrote a book for NAAC on quality assurance to help everyone understand and speak a common language of quality. I believe we stop comparing apples and oranges; we have a strong system in place, with exceptions of poor quality. Quality is what every teacher and student do in the institution.

Cost of education is a much bigger issue. Particularly when universities are facing funding challenges, the cost of education has transferred from the state to the public. Privatization of higher education has been the new trend. But this has close relationship with access and national development. 54.6% of boys and 64.2% of girls drop out of higher education due to financial constraints. Cost of professional education is about 78% of per capita income. Textbook costs are about 25% of expenditure of the students in general education.

A study by the Economist indicates that in 2015, a 4-year degree cost was 500% of per capita income. Comparing to other Asian countries, this is very high. The Economist also forecast that this will be reduced to almost half by 2030. But we can still need to make higher education affordable.

Can TEL help us increase access, improve quality, and reduce cost? The answer is an emphatic yes to the power 3.

COVID-19 has shown that business as usual is not the way forward. We need to rethink our teaching and learning. What are the options?

We have a range of options: teaching in the conventional face-to-face education in small cohorts to offering online through Massive Open Online Courses (MOOCs). But the future is about blended learning, which is appropriate mix of face-to-face and online provisions to teach and learn. Courses need to be re-designed to the new normal.

For such a transition we need a strategic framework. We at Commonwealth of Learning promotes Policy-Capacity-Technology framework where content is largely digital.

While offering online courses, we need to look beyond the current approaches to remote learning, using synchronous video conferencing. In order to offer online learning well, the focus should be on theoretical underpinnings. There are many models and approaches. I always submit a simple approach: provide experience (reading, watching, listening, doing), allow self-reflection -- reflection in (during) and reflection on (after) experiences, engage in student-student, student-teacher interaction, and help students construct their own meaning, knowledge, and artifacts.

This leads to the next part of the presentation on MOOCs, which I call Digital Distance Education.

MOOCs started in 2008 as an experiment at University of Manitoba in Canada to teach about 25 fees paying and other 2200 learners freely joining from around the world making a connected learning group. Since then MOOC has grown big. There are over 110 million learners around the world. Over 900 universities are offering over 13,500 courses. India's SWAYAM platform is a leading government supported MOOC platform in the world. There are others like FutureLearn, EdX and Coursera. They make available courses from top universities to your students. Almost all the topics are covered, and these are not just useful for students, they also serve teachers to refresh their knowledge and understanding.

The University Grants Commission has permitted 20% of credits to be earned by students through MOOCs on SYAWYAM platform. This brings in the need for quality assurance of MOOCs. We, at COL, have developed a set of guidelines for MOOC providers that includes guidelines at three stages of MOOC

development and delivery – the presage, the process, and the product. I am not going into details here. I recommend you look for this document on our Repository. The major question is: have you integrated MOOCs in your curriculum? Are the regulations known to the students to take advantage of these courses?

Online learning, including MOOCs require eContent development. Like distance education, online learning takes more planning and development time.

For online eContent development, I recommend VRDQ approach. Develop videos, identify reading resources, or develop reading materials, create engaging discussion forums, and develop questions – quizzes and assessment tasks. Principles of eContent development, especially should be followed.

SWAYAM promotes the 4-quadrant approach, which is like the VRDQ approach. What is important is to focus on synchronous as well as asynchronous learning. Remember online learning is largely asynchronous.

Instructional design plays an important role in developing good online learning. This should start with articulation of the learning outcomes and the way you would like to assess the learners. Of course, availability and use of appropriate technology are key to developing good courses, institutions must focus on teacher capacity building, learners' digital readiness, setting up learning management system and open access repository to offer online/blended learning.

While developing content, the saying is "you do not have to reinvent the wheel." You can just adapt what is available in your eCourses. There is huge amount of open educational resources available in many areas and we can use these to develop eContent.

What are OER? Open Educational Resources (OER) are teaching, learning and research materials in any medium that may be composed of copyrightable materials released under an open license, materials not protected by copyright, materials for which copyright protection has expired, or a combination of the foregoing.

The meaning of "Open" in OER is explained by the 5Rs – reuse (copy verbatim), revise (adapt and edit), remix (combine with other materials), redistribute (share with others), and retain (make, own and control copies). Open license allows you to do these without the permission of the copyright holder.

OER as a term was coined in 2002 in a meeting at UNESCO and has come a long way. In 2019, the UNESCO in its General Conference approved the Recommendation on OER, which has now been sent to all the governments for adoption. The recommendation promotes that publicly funded educational materials should be available with an open license.

Interestingly, OER is in line with age old Indian saying – "Vidya daana, maha daana", meaning learning is the biggest gift. India is an early adopter of OER and has contributed huge amount of resources through its NPTEL and ePG-Pathshala project. NMEICT has an open licensing policy since 2014.

According to data available, there are 9 universities with OER policy and repository. Many more are in the process of developing OER policy.

Apart from Indian sources, there are many other platforms that you can look for relevant OER for use in developing courses.

If you are engaged in developing OER, I recommend you use our guidelines for quality assurance of OER -- the TIPS framework, which has about 34 criteria. You can adapt the criteria that is most suitable to your institution and develop your code of practice.

Many of you may be thinking about effectiveness of OER. There are many studies to prove this point. I am showing you here the results of a small study in Antigua and Barbuda, where use of OER helped students save money and also improved performance by 5.5%.

I have also completed an extensive research in 4 universities in India and developed a model for mainstreaming OER. The key elements in the model are policy, quality assessment and skills to use/reuse.

We have a short course on OER (https://learnoer.col.org/) that I recommend you all to do online and learn more.

So, if you want to address the issues of access, quality, and costs, you need to focus on what is best in your context. I present some ideas for your consideration.

Educational institutions should develop policy for technology-enabled learning, especially to adopt blended learning. Integrating SWAYAM MOOCs in practice and identifying courses that students should take up in a semester will be useful in courses not having appropriate faculty. Institutions also need to rethink their strategy to invest on improving technology infrastructure and regular capacity building of teachers.

Teachers are key in making the transition to online learning successful. They need to rethink the business as usual approach more critically and take steps that will strengthen the entire educational system. For some teachers, the learning curve will be steep, but in long run this will help them focus more on research.

Students also need to look beyond the social use of technology to use it as educational tool. There is huge amount of resources available on almost all subjects. When I was a graduate student, buying a book was also difficult, even if one could afford. Today, you can get many high-quality resources free. Think how you can use these to improve your learning and become co-creator of knowledge.

Last, but not the least. Regulatory agencies need to focus more on OER, MOOCs and blended learning. A regulation on blended learning by UGC will help universities to restructure their learning hours and days. There have been mention of OER in QA guidelines and norms. In the absence of a clear policy, mainstreaming of OER is slow. Even the MOOCs need to be licensed as OER. The current guidelines indicate such a possibility at a suitable time. To me, the time is now!

Thank you for your kind attention.