UNIT 8: NEW APPROACHES IN DISTANCE EDUCATION

UNIT STRUCTURE

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8.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- explain the concept of Blended Learning as well as the Relevance of Blended Learning
- define the term Open Educational Resources better known as OER
- explain the concept of OER and MOOC as a new addition to modern education
- discuss the need and scope of OERs and MOOCs
- enlist the challenges of OERs and MOOCs in the context of India

8.2 INTRODUCTION

This unit familiarises you with the concept of blended learning and other new interventions like OERs and MOOCs which are relevant in the 21st century. As we know in the 4th Industrial revolution, where we are talking about digital learning, recently the government of India has also initiated to implement the blended learning environment for sustaining the

education system from schooling to higher level. Various OERs, MOOCs and other E-resources have helped in disseminating the knowledge movement through the paltforms such as NMEICT, NPTEL, e-PG Pathshala, SWAYAM PRABHA, e-Content courseware in UG subjects, CEC-UGC You Tube Channels, Spoken Tutorial NDL, Shodhganga, e-Shodhsindhu, Shodh Shudhhi, Vidwan, MOOCs and SWAYAM etc. These together with DIKSHA and One-Nation-One Digital Platform project of Ministry of Education shall ensure the availability of on-line learning resources in a very dynamic way mostly after the first wave of COVID 19.

OER can be roughly understood as any kind of teaching-learning and research materials in any medium to be used in the public domain under an Open License that permits their free use. Thus, free availability and reusability of OERs are the key issues that can enable generations of learners to use them in both formal and non-formal mode of education. And, the digital revolution of the 21st century has made OER the buzzword in any serious educational institute of contemporary times. OERs have enabled educators to be more creative as they have to deal with wide range of experiences in terms of capacity and background of the learners whom they may not meet. One key difference between OER and any other educational resource is that OER have an open license, preferably a Creative Commons License, which allows adaptation and reuse without having to request the copyright holder. The Massachusetts Institute of Technology's (MIT) Open Courseware (OCW) initiative, in which teachers placed their lecture notes online for free use, inaugurated the movement globally.

Even during the COVID 19 Pandemic, it has been felt that Massive Open Online Courses (MOOCs), Open Educational Resources (OERs), or any form of online engagement can play a crucial role in disseminating information and providing academic support to millions of learners irrespective of any mode of education as the educational institutions across the world

Thus, by the end of this unit, you will not only be in a position to explain the concept of OER and MOOC, but will also be able to discuss the

need and scope of OER, MOOC and the challenges of OER and MOOC implementation in a country like India.

8.3 CONCEPT AND RELEVANCE OF BLENDED LEARNING

Blended Learning has never been a substitute for face-to-face learning and is also not merely a mixing of face-to-face and online mode, rather it is a well-planned combination of meaningful activities in both the modes. According to the U.S. Department of Education (Means, Toyama, Murphy, Bakia, & Jones, 2009), a blend of classroom and web-based teaching and learning offers access to the widest range of learning modes and methods for developing student skills and expertise as learners (Cleveland-Innes, 2017). Many findings on blended learning show an increase in learners' ability to learn collaboratively, think creatively, study independently and tailor their own learning experiences to meet their individual needs.

So if we talk about what is blended learning then it clears that blended learning is the use of traditional classroom teaching methods together with the use of online learning for the same students studying the same content in the same course. It is a "thoughtful fusion of face-to-face and online learning experiences" (Garrison & Vaughan, 2008). There are also blended programmes, in which students study some courses in face-to-face classrooms and other courses are delivered fully online.

In other words, blended learning is a term applied to the practice of providing instruction and learning experiences through some combination of both face-to-face and technology-mediated learning. During the technology-mediated components of these learning experiences, students are not required to be physically together in one place but may be connected digitally through online mode. For example, one blended learning course could involve students attending a class taught by a teacher in a traditional classroom setting while also completing online components of the course independently, outside of the classroom, on an online learning platform.

Blended learning is a new normal for 21st century learners:

NEP 2020 also emphasises a learner-centred approach in teaching-learning involving them in the process of learning through various individual and group activities. In face-to-face-learning, even if a teacher wishes to reduce one-way tutoring and plans for group-work or individual work, available time for such activities in the classroom is inadequate. As such, face-to-face conventional teaching does not promote, to the desired level, higher order thinking abilities, global competencies and creativity in students resulting into skill-gap and un-employability. The situation compels us to look for the other available alternatives, not as the substitute for face-to-face learning but as a supplementary and complimentary measure. Emergence of newer digital technologies demand for leveraging it for effective teaching-learning processes at all levels of education.

One of the best alternatives to accomplish this is the use of blended models of learning. Blended learning (BL) is an instructional methodology that combines face-to-face and ICT mediated activities alongside integration of synchronous and asynchronous learning tools to transform learning into an enjoyable edu-enterprise.

BL has never been a substitute for face-to-face learning and is also not merely a mixing of face-to-face and online mode, rather it is a well-planned combination of meaningful activities in both the modes. Real BL environment requires that both the students and the teachers are physically located in the same learning space. BL environment ensures increased student engagement in learning and enhanced teacher-student interaction, greater responsibility for learning, more flexible teaching and learning ecosystem, promotes self and continuous learning, offers better opportunities for experiential learning, and improved learning outcomes.

Accordingly, various effective blended learning models can be identified suiting the needs of different disciplines. The flipped classroom is a similar technique that utilises technology in order to remodel the learning experiences and maximise the effectiveness of traditional face-to-face time in the classroom. Learning resources such as video lectures, podcasts, recordings and articles are provided to the learners in order to create free

time for teachers to support students in activities, lead discussions and facilitate engagement for transforming passive class-rooms into active learning spaces. BL and flipped classroom in combination thus eventually help student community to learn the art of learning alongside content learning.

8.4 CONCEPT OF OERS and MOOCs

"What is OER?" is perhaps the most important question for those who have not yet heard the term OER. Open educational resources (OER) are free and openly licensed educational materials that can be used for teaching, learning, research, and other purposes. But, before discussing the concept of OERs in detail, let us first have a look at some of the definitions of OERs that have been accepted worldwide to be the standard definition of the term.

- **The William and Flora Hewlett Foundation:** "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."
- **Organisation for Economic Co-Operation and Development:** "Digitised materials offered freely and openly for educators, students, and self-learners to use and reuse for teaching, learning, and research. OER includes learning content, software tools to develop, use, and distribute content, and implementation resources such as open licences."
- **UNESCO:** "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 Cape Town Open Education Declaration:** "[O]pen educational

resources should be freely shared through open license which facilitate use, revision, translation, improvement and sharing by anyone. Resources should be published in formats that facilitate both use and editing, and that accommodate a diversity of technical platforms. Whenever possible, they should also be available in formats that are accessible to people with disabilities and people who do not yet have access to the Internet."

- **The Wikieducator OER Handbook:** "The term Open Educational Resource(s) (OER) refers to educational resources (lesson plans, quizzes, syllabi, instructional modules, simulations, etc.) that are freely available for use, reuse, adaptation, and sharing."
- **OER Commons:** "Open Educational Resources are teaching and learning materials that you may freely use and reuse, without charge. OER often have a Creative Commons or GNU license that state specifically how the material may be used, reused, adapted, and shared."

Nearly all the definitions provided above mention that OER is a kind of 'content' or 'product' which is free and freely available, is suitable not just for higher education but for all levels of education, and are released under an open license. OER can be reused and repurposed to suit different needs and could be available in any medium- print, audio, video, digital. One key difference between OER and other educational resources is that OERs have an open license, which allows adaptation and reuse without having to request the copyright holder. The emergence of what is called 'global commons' powered by the collective efforts of some intelligent people around the world led to the coining of the term Open Education Resources or OERs at a UNESCO meeting in 2002.

Now, let us have a discussion on the term OER is some detail. The Report of the Forum on the Impact of Open Courseware for Higher Education in Developing Countries, UNESCO, Paris, 1-3 July 2002 purposefully showcased, perhaps for the first time, the need to provide educational resources for college and university faculties to adapt in accordance with their curricular and pedagogical requirements. By referring to the Massachusetts Institute of Technology University (MITU) Open Course Ware

Initiatives, the participants of the Forum praised MITU's support in producing materials for approximately two thousand courses freely available for use by faculties and students from all over the world. A Forum like this, not only paved the ways for more recent discussions of intellectual property issues, but also helped to define the primary stakeholders for such initiatives. One of the major contributions of the Forum was the adoptions of various educational projects in the developing countries. Following this, several OER initiatives have been taken in many of such countries.

A decade later, the World Congress on Open Educational Resources, UNESCO, Paris, 20 to 22 June, 2012, in order to celebrate the 10th Anniversary of the 2002 UNESCO Forum, that coined the term Open Educational Resources, urged for developing and adapting OER in different languages to suit different contexts, encouraging Open Licensing of educational materials produced with the help of public funds. Since then, along with the emergence of various higher educational institutions of different sorts, there can be seen a major move by such institutions towards the creation of open educational contents along with printed text books and other reading materials. Besides MITU, other world-ranking universities like Stanford, Yale, University of Michigan, University of California, United Nations University have been offering courses on a wide variety of areas like Business, Energy, Fine Arts, Humanities and Social Sciences, science and technology, and have largely contributed internationally to improved teaching learning activities. Such initiatives have not only helped both the learners and the educators in general, but have also empowered the common masses who can use these resources and reuse the contents for knowledge up-gradation in a competitive world.

Next we shall discuss what is MOOCs and why is it important in the 21st century. MOOCs, which made its global presence felt in around 2012, are online courses that are designed for a large number of people that can be accessed by anyone, anywhere and anytime so long as they have an internet connection, are open to everyone without entry qualification and offer a full/complete course experience online for no cost at all. In fact, for popularising MOOCs all over the world, the year 2012 was declared as the

year of the MOOCs by The New York Times. Today, in many countries, including in India, MOOCs are being offered by the top universities that have opened new vistas for the aspiring learners to pursue education independently under the concept of lifelong learning. Although MOOCs are not the substitution for traditional courses, this has surely created an open gate for the learners to reach the esteemed professors and educators whom they would perhaps never meet physically.

In the current century, the emergence of various forms of online learning including MOOCs has created a knowledge movement in the whole world. While discussing the crucial role of MOOCs, Melinda dela Peña Bandalaria (2018) mentioned that MOOCs are playing a significant role in transforming and empowering higher education across Asia and that the creation of MOOCs platform and the presence of national providers of MOOCs offering open learning to all has been a continuous process since 2013. But the important point is that the different country-wise MOOC initiatives in South East Asia such as K-MOOC in Korea; J-MOOC in Japan, Thai-MOOC in Thailand; OpenLearning.com in Malaysia; University Joint Alliance Platform in China and the MODeL for the Philippines etc. have enabled the participating open universities and other institutions to collaborate while offering open online courses for thousands of intending learners. This has not only served the learners in their respective countries but has also facilitated monitoring of quality of this open learning mechanism and formalisation of national policies on the recognition of learning obtained from the completion of these courses.

Acknowledging the potential of MOOCs for transforming the society, the MHRD, Govt. of India in the year 2016, introduced Study Webs of Active Learning for Young Aspiring Minds or SWAYAM, where teachers from institutions like the IITs, IIMs, and central universities offered online courses to the citizens of India. In order to ensure the quality of the contents produced and delivered through SWAYAM, Nine National Coordinators had been appointed which are-NPTEL for engineering, UGC for post-graduation education, CEC (Consortium for Educational Communication) for under-

graduate education, NCERT & NIOS for school education, IGNOU for out of the school students and IIMB for management studies. Subsequently, the University Grants Commission (UGC) through its 2016, 2020, 2021 Credit Framework for Online Learning Courses through SWAYAM Regulation has mentioned that at least 20% to 40% materials from the total number of courses by an Indian University should be released in the form of MOOCs for the fast mobilisation and dissemination of knowledge and information among the prospective learners. The UGC further came up with the Choice Based Credit System (CBCS) system through which a learner would be able to choose from among the prescribed courses which shall be referred to as core, elective or minor or soft skill courses and they could learn at their own pace. Besides, the entire assessment shall be graded based on a credit system. The idea of the Indian Government behind such developments has been to promote academic excellence in the areas of choice, to provide adequate flexibility in the choice of subjects and to develop curriculum with student focus. Another recommendation of the UGC is that all universities should develop an LMS (Learning Management System) besides releasing their OER materials as MOOCs in the SWAYAM platform as soon as possible for making education more vibrant and sustainable.



LET US KNOW

The basic differences between OERs and MOOCs:

Anyone can produce and share their knowledge and expertise in the OERs platforms without receiving any certificates at any time. It is related to knowledge sharing in the public domain. Whereas MOOC is related to a course, after completion of a course, a student or a learner may receive the certificate from the host institutions.



CHECK YOUR PROGRESS

Q 1: What is OER?

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Q 2: What is an Open License?

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Q 3: What is the basic difference between OER and other educational resource?

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Q 4: Which are the two most important OER conferences stated to have established the importance of OER in the whole world?

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Q 5: Which are some of the world ranking educational institutes that have widely promoted OER?

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Q 6: What is the full form of MOOCs?

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Q 7: Briefly write about SWAYAM.

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8.4.1 Need of OERs in Education

You will note that when the term OER first emerged, the primary focus was on education or higher education so to say. But with the passage of time, since 2002, when the world witnessed greater global participation in primary and secondary education, the concept of OER came to be included as part of institutional policy implementation encompassing many more areas. Besides, the increasing use of Internet in the world has helped realise the fact that OER is no longer a difficult issue among institutions in the Higher

Education sector. Other than the internet, linking access and re-use of OER with the increased availability of affordable mobile phones have been the other key development in the 21st century.

Still, the point here is, do we really need OERs when there is a plethora of resources of any kind available in an institution? The answer to this question is that we do need OERs as the movement has resulted in a multi-directional flow of knowledge. OER has provided for a global exchange of knowledge, as we learn from different developmental works being carried out in different parts of the world. Open licensing as an approach to foster the spread of global public goods is another concern that has facilitated the spread of knowledge. In this context, Creative Commons has appeared to be the most significant licensing framework although licensing options can vary from country to country. OERs have two biggest advantages: One, they have the potential to cut the costs of printed materials thus saving a whole lot of public money, the other is that OERs can increase access and improve the quality of education.

In the context of India, where the cost of education is increasing day by day, OER may be very useful for educating the poor people living in various adverse areas in which establishing formal educational institutes is a far cry due to geographical and socio-political barriers. For these people, the cost of enrolment into schools and colleges, and acquisition of text books and other reading materials is much higher than the family's monthly income. Hence, OER development may be a timely solution for reaching out to these people and realizing the mottos like Zero Rejection Policy and Inclusive Education. Besides, these resources can be usefully taught through the Community Colleges regarding the establishment of which there is clear guidelines under the MHRD, Govt. of India. However, the important point at this juncture is how to ensure the production and availability of educational contents produced with the help of public funds, which in a way fulfils one of the important

objectives of the OER revolution today which is also to facilitate inclusive education for the differently- abled children.

Why People Feel the Need to share?

The reasons that individuals and institutions are feeling the need of producing and sharing OER can be divided into three basic reasons. They are-(a) Technological and economic, (b) Social and (c) Legal Reasons. The technological and economic reasons include improved, less costly and more user-friendly information technology infrastructure (such as broadband), hardware and software. Content is cheaper and easier to produce and costs can be further reduced by sharing. New economic models are emerging around the distribution of free content. Legal reasons refer to new licensing schemes that facilitate free sharing and reuse of content. Social drivers include increased willingness to share.



LET US KNOW

The use, production and sharing of OER is never free from barriers. A technical barrier is lack of broadband availability. Lack of resources to invest in hardware and software for developing and sharing OER is an economic barrier. Barriers such as these are often mentioned as significant obstacles in the developing countries. Social barriers include lack of skills to use the technical innovations and cultural obstacles against sharing or using resources developed by other teachers or institutions.

There are three arguments for different Governments to support OER projects worldwide. These are:

- They expand the access to learning for everyone, mostly the non-traditional groups of students and thus widen the scope of this participation in higher education.
- They can be an efficient way of promoting lifelong learning for both the individual and the government.
- They can bridge the gap between non-formal, informal and

formal learning.

However, despite all barriers, the following may be seen as the main motives of the rising involvement in OER projects.

- The altruism that sharing knowledge is in line with academic traditions and a very good thing to do.
- Educational institutions (particularly those publicly financed) should leverage taxpayers' money by allowing free sharing and reuse of resources.
- Quality of contents can be improved and the cost of content development can be reduced by sharing and reusing. Use of OER can be attractive to new students.
- There is a need to look for new cost recovery models, like an OER project, as institutions experience growing competition.
- Open sharing will speed up the development of new learning resources, stimulate internal improvement, innovation and reuse and help the institution to keep good records of materials and their internal and external use.

Whether institutions are engaged in OER projects or not, OER can be expected to affect curriculum, pedagogy and assessment. With thousands of (open courseware) courses from internationally reputed higher education institutions being available for free, teachers and educators will need to consider that students compare their curriculum with others. Since the teachers' role as supplier of reading lists and teaching materials is diminishing, OER is likely to accelerate changes in the traditional teaching role and the evolution of more independent learners. An increase in non-formal and informal learning can be expected to enhance the demand for assessment and recognition of competences gained outside formal learning settings.



CHECK YOUR PROGRESS

Q 8: State the two major advantages of OER in the field of education.

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Q 9: What are the three important barriers in the use of OER?

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Q 10: State two reasons for the rising involvements in OER projects.

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8.4.2 Scope of OERs

As you know, Commonwealth of Learning, Canada and UNESCO, Paris have been working for several years now to promote the development and use of OER around the globe. The 2012 World OER Congress was organised jointly in Paris to mark the tenth anniversary of the term OER, with generous support from the William and Flora Hewlett Foundation. The Paris Declaration made 10 recommendations, out of which the following three are perhaps the most important:

- Foster awareness and use of OER
- Encourage the development and adaptation of OER in a variety of languages and cultural contexts
- Encourage the open licensing of educational materials produced with public funds

These recommendations can be seen as important developments regarding the idea and use of OER as different

Governments tend to have accepted the benefits of OERs and have tried to incorporate an OER policy into their education system.

In this context, we must discuss the role of Commonwealth of Learning (COL) has played in popularising the term OER and extending its benefits in a globally competitive educational environment. You will learn that COL maintains an online directory service for OER from the Commonwealth countries which is easily accessible from their website: www.col.org. Besides, they have identified free courses from different institutions belonging to the Commonwealth Countries that can be used by other stakeholders in areas like higher education, secondary schooling, teacher education, education for women, and skill development. All these OER courses and materials are developed so that without duplicating effort, participating countries can directly access quality materials that they can adopt and adapt as and when necessary. COL has become one of the major publishers of the latest research and toolkits on OER. The William and Flora Hewlett Foundation, USA also came forward to support this work that combines the professional development of teachers with the development of OER.

Thus, COL has broadened the scope of OERs by resorting to the following four issues:

- Advocacy and awareness generation regarding the benefits and availability of OER.
- Policy development on OER at the national and institutional levels.
- Capacity building so that more governments, institutions and individuals are able to effectively harness the potential of OER.
- Promote research through its publications on OER and its Chairs programme.

Besides what is mentioned above as part of COL initiatives, many international activities have undertaken OERs, by creating them, reusing them in their own contexts, and even localising them, spreading knowledge like never before and benefitting millions of

people worldwide. Some of those activities include the following:

- China Open Resources for Education (CORE) has translated MITU materials into Chinese.
- COL's Instructional Design template, an OER, has been translated and adapted by the Open University of China.
- Materials from COL's website have been translated into Ukrainian, German and other non-Commonwealth languages.
- COL has developed free collaborative content on English Language Teaching which has been used to train teachers in Kenya.

In a country like India, the National Programme on Technology Enhanced Learning (NPTEL) project funded by the MHRD was an important initiative undertaken by 7 IITs, and the Indian Institute of Science, Bangalore in 1999. So far, it has been instrumental in promoting e-learning through online courses on Engineering and Technology, Humanities and Social Sciences etc. Following this, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad created a number of Open Access learning materials on agricultural practices under Virtual Academy for the Semi-Arid Tropics (VASAT) to promote literacy on natural resources. Then, a premiere educational institution like IGNOU started the FlexiLearn project to promote personal learning by providing free access to its courses. Till this date, India has become a very large producer of OER in Asia along with other advanced countries like China, Korea and Japan. Today, many other universities and educational institutions in India have created OER. This means that OER is no longer a nascent phenomenon in India. It is important to note that such resources are not only being used in the Open and Distance mode of education, but the concept of open access is also being increasingly used in the face-to-face and formal mode of education. Many of such resources are also gaining tremendous popularity as YouTube lectures. You will note that many of these premier institutes mentioned above, in partnership with the

Government of India, have made their engineering and technology courses available as OER. These are being used in over hundreds of institutions, most of them in remote locations with very limited resources. But, the interesting point is that teachers and students from other educational institutes too are using the free IIT resources to improve the quality of their teaching and learning.

In the state of Assam, the decision taken by Krishna Kanta Handiqui State Open University to release its course materials and research activities under Open Licensing, has been seen by many as an important step towards the use and sharing of OER. KKHSOU is not only trying to identify the need of various stakeholders, but also making them producers of valuable e-contents. It has been producing important educational resources in the local languages to meet local requirements. Till now, as part of its OER policy, the university has adopted the CC-BY-NC-SA for all its resources. Besides, hundreds of educational videos are made available on YouTube which can be accessed through www.youtube.com/user/kkhsou. The experience of KKHSOU may be seen as a wake-up call for other premiere institutions of the state to develop their own policies of OER and Copyright, and contribute meaningfully to the whole mankind in general.

So, the scope of OER is immense internationally, nationally and globally in the context of the 2nd Decade of the 21st century. However, what incentives and other institutional mechanisms and processes need to be put in place to facilitate the growth and mainstreaming of OER in educational institutions is perhaps the biggest challenge of the time. The following initiatives need to be adopted for further extending the benefits of OERs:

- Developing an ICT policy within the institution
- Elaborating a policy on copyright
- Providing incentives for faculty members such as increments and recognition of OER towards promotions

- Developing a strategy for involving stakeholders from your perspective.



CHECK YOUR PROGRESS

Q 11: Which are the two international organisations instrumental behind the spread of OER?

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Q 12: What is the role played by COL in spreading the scope of OERs?

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Q 13: Name some of the Indian initiatives to promote OER in the Indian contexts.

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8.5 CHALLENGES OF OER and MOOC APPLICATION

In spite of the efforts made by the international and national OER communities for popularising and extending the benefits of OERs, there are certain major issues that need to be addressed for OER and MOOC to realise its transformative potential. These are briefly discussed below:

- First, the digital divide across the world is still continuing. Unlike in case of the developed countries, in a developing country like India, we certainly start with a disadvantage-technological barriers. However, the present debate on the use of OER has to focus not only on technology, but also on the stakeholders' engagement and the politics of power. Exclusivist politics needs to be abolished for the greater benefit of mankind. Again, it has also been observed that due to the sufficient infrastructure, the success rate of the MOOCs or the pass percentage

of the learners is very few in the online courses than the tradition face to face teaching courses. In the Indian context, the digital division between the haves and have nots is yet another pertinent issue for which many lifelong learners, particularly from the weaker sections, have always been deprived of getting the opportunity to enhance their knowledge and skills. In this context, it is the duty of the educational providers to encourage the learners for collaborative and team teaching so that exchange and sharing of technological tools would help them immensely to get the proper information on time.

- Secondly, one must also try to discuss in what ways OER can help address the issues of equity and inequality. Institutions and groups with better access to resources and infrastructure will make more use of the educational technology innovations such as free and open resources. So, they must ensure that even the low-income students have access to resources previously available only to students of advantageous background.
- Thirdly, against the fact that the opportunity gap between wealthy and poor has expanded like never before, lack of research may end up with the fact that every education technology initiative including OER which does not specifically target the needs of particular populations will benefit only the wealthy.
- Fourthly, many teachers and educators have felt that they did not have either the time or the capacity to locate, adapt, and re-purpose OER material relevant to their work. Lack of interest among the teachers themselves to explore the OER repositories, and unwillingness to learn have resulted in the damage of a vast reservoir of human resources.
- Fifthly, Learners too felt that OER should be fully open and materials should be accessible on alternative technologies such as mobile devices. While the management of the Institutions are only concerned about the challenges relating to intellectual property and copyright issues, lack of a proper understanding of copyright and open licensing has been another hindrance for OER development.

- Lastly, the incentives to be provided to teachers and educators seriously involved to participate in this OER and MOOC movement has long been undermined. Because the fundamental duty of a teacher is to improve the quality of education. But the irony is that when many of them have not heard of OER and MOOC, how can one make them active participants in this movement?



8.6 LET US SUM UP

- From this unit, you have learnt that blended learning is the use of traditional classroom teaching methods together with the use of online learning for the same students studying the same content in the same course. It is a "thoughtful fusion of face-to-face and online learning experiences."
- OER is used to mean any digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research.
- OER includes learning content, software tools, use and distribution of contents, and implementation of resources under an open licence. OER also refers to resources which can be adjusted, and which can provide benefits without restricting the possibilities for others to enjoy them.
- You have learnt that in the context of the knowledge era, sharing of educational resources has been one of the priority areas of the educational institutions. That is why, the need of OER, has been increasingly felt worldwide.
- Besides, the way OER has inaugurated a new era in education, it can be assumed that OER has immense scope internationally, nationally and locally in the days to come.
- MOOCs, which made its global presence felt in around 2012, are online courses that are designed for a large number of people that can be accessed by anyone, anywhere and anytime so long as they have an internet connection, are open to everyone without entry qualification and offer a full/complete course experience online for no cost at all. In

fact, for popularising MOOCs all over the world, the year 2012 was declared as the year of the MOOCs by The New York Times.

- The use and creation of OER and MOOC face a lot of challenges. Some of the challenges are-digital divide across the world, issues of equity and inequality, lack of adequate research on the usefulness of OER, lack of interests and willingness among the educators to accept OER and so on.



8.7 FURTHER READING

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8.8 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q N. 1: OER can be roughly understood as any kind of teaching learning and research materials in any medium to be used in the public domain under an Open License that permits their free use.

Ans to Q N. 2: An open license, preferably a Creative Commons License,

usually allows adaptation and reuse of a resources in any format without having to request the copyright holder.

Ans to Q N. 3: The basic difference is that OERs have an open license, which allows adaptation and reuse without having to request the copyright holder.

Ans to Q N. 4: 1. Forum on the Impact of Open Courseware for Higher Education in Developing Countries UNESCO, Paris, 1-3 July 2002. 2. World Congress on Open Educational Resources, UNESCO, Paris, 20 to 22 June, 2012.

Ans to Q N. 5: Massachusetts Institute of Technology University, and other Universities like Stanford, Yale, University of Michigan, University of California, United Nations University and so on.

Ans to Q N. 6: Massive Open Online Courses (MOOCs)

Ans to Q N. 7: Acknowledging the potential of MOOCs for transforming the society, the MHRD, Govt. of India in the year 2016, introduced Study Webs of Active Learning for Young Aspiring Minds or SWAYAM, where teachers from institutions like the IITs, IIMs, and central universities offered online courses to the citizens of India. In order to ensure the quality of the contents produced and delivered through SWAYAM, Nine National Coordinators had been appointed which are-NPTEL for engineering, UGC for post-graduation education, CEC (Consortium for Educational Communication) for under-graduate education, NCERT & NIOS for school education, IGNOU for out of the school students and IIMB for management studies. Subsequently, the University Grants Commission (UGC) through its 2016, 2020, 2021 Credit Framework for Online Learning Courses through SWAYAM Regulation has mentioned that at least 20% to 40% materials from the total number of courses by an Indian University should be released in the form of MOOCs for the fast mobilisation and dissemination of knowledge and information among the prospective learners. The UGC further came up with the Choice Based Credit System (CBCS) system through which a learner would be able to choose from among the prescribed courses which shall be referred to as core, elective or minor or soft skill courses and they could

learn at their own pace.

Ans to Q N. 8: OERs have two biggest advantages: One, they have the potential to cut costs of printed materials thus saving a whole lot of public money; the other is that OERs can increase access and improve the quality of education.

Ans to Q N. 9: Technical barrier is the lack of broadband availability, Economic barrier is the lack of resources to invest in hardware and software for developing and sharing OER, and social barriers are the lack of skills to use the technical innovations and cultural obstacles against sharing or using resources developed by other teachers or institutions.

Ans to Q N. 10: One reason is that sharing knowledge is in line with academic traditions. The other reason is that educational institutions are using taxpayers' money by allowing free sharing and reuse of resources.

Ans to Q N. 11: Commonwealth of Learning, Canada and UNESCO, Paris have been working for several years now to promote the development and use of OER around the globe.

Ans to Q N. 12: COL maintains an online directory service for OER from the Commonwealth countries. Besides, they have identified free courses from different institutions belonging to the Commonwealth Countries in areas like-higher education, secondary schooling, teacher education and skills development.

Ans to Q N. 13: The NPTEL project funded by the MHRD, ICRISAT, Hyderabad created a number of Open Access learning materials on agricultural practices under VASAT, IGNOU's FlexiLearn project to promote personal learning etc.



8.9 POSSIBLE QUESTIONS

A. Short Questions (Answer each question in about 150 words)

Q 1: What is blended learning?

Q 2: What are the reasons behind the emergence of the OER movement

in the 21st century?

Q 3: Write a note on the history of OER movement with particular reference to 2002 Paris Forum.

Q 4: Explain the differences between OERs and MOOCs.

Q 5: Do we really need OER and MOOC? Write a note on use of OER and MOOC in the field of higher education of the 21st century.

Q 6: What is the scope of OER? Why are the people around the globe feeling the need to share?

B. Long Questions (Answer each question in about 300-500 words)

Q 1: In what way, can a teacher or educator use OER himself or herself or help their students use OER for learning?

Q 2: How does MOOCs help the learners in receiving lifelong learning opportunities and also in transferring their credits?

Q 3: Mention the benefits of an institution resorting to the production and sharing of OERs.

Q 4: Describe in detail the role played by Commonwealth of Learning in popularising the term OER.

Q 5: Many international activities have undertaken OERs. Discuss in detail.

Q 6: What is the current status of OER in a country like India? Describe.

Q 7: What are the major challenges of OER application in contemporary times? Discuss in detail.

Q 8: How does the blended learning mode help the learners in receiving the 21st century global learning? Discuss critically.

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