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## UNIT 7 ODL AND E-LEARNING

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### 7.1 INTRODUCTION

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Do you have to travel to an educational institution for studying this course? Why? Suppose you had to be physically present at a conventional educational institution that teaches in face-to-face mode what would have been the difficulties? Many learners cannot afford to be physically present at institutions for learning. There are various reasons for it. Therefore, during the past few decades there have been efforts to take education to such learners. Open and distance learning (ODL) is the means for reaching out to learners who cannot reach educational institutions. ODL is used for reaching out to those who aspire for education but cannot attend conventional educational institutions. It has therefore emerged as an alternative to face-to-face teaching and learning. However, ODL has been using mainly print medium and to some extent audio and video programmes for imparting education. Now it is moving towards online delivery of instructions. This unit deals with the online delivery of educational resources. It further discusses on ODL practices, the concept of e-learning, tools and techniques used for delivering it, its advantages and disadvantages and other related aspects.

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### 7.2 OBJECTIVES

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After studying this unit, you shall be able to:

- describe ODL practices as an alternative;

- explain the concept of E-learning;
- identify commonly used tools and techniques of e-learning;
- discuss the concept of Massive Open Online Courses (MOOCs) and
- describe the concept of Open Educational Resources (OER)

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### **7.3 ODL PRACTICES AS ALTERNATIVE EDUCATION**

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What is open and distance learning (ODL)? According to Gaskell (2017), ODL comprises two terms—open and distance—but being open does not necessarily refer to distance learning. Distance learning implies teachers and learners are at a distance from each other. For example, you, as a learner, are at a distance from your teachers. What does being open mean? Is distance learning always open? According to the Commonwealth of Learning (2000), open learning provides learners with choices. For example, learners select the place of learning. They decide whether to study at home or while travelling or at the workplace or some other place. They can also select pace, i.e. speed at which they will study. Learners can also choose entry and exit points of a programme like enrolling in a programme only for a particular module (s) and exiting after completing them. Thus, open learning removes barriers to learning and accommodates learners' choices and needs. Unless distance education is flexible enough to accommodate learners' needs, it is distance but not open. Many ODL institutions are using openness to the extent possible to attract and facilitate learners and learning.

Why is ODL needed? Some people aspire to study further, but cannot go to educational institutions. Those physically challenged, unwell, in-service, staying in rural and remote areas, aged, homemakers, and many others who are unable to go to educational institutions may aspire to continue education. Moreover, conventional education accommodates only a few students and there are neither enough institutions nor enough capacity to accommodate a large number of learners. Distance education does not depend on classrooms for teaching and learning and accommodates a large number of learners. Hence, it has emerged as an alternative system of education.

#### **ODL in India**

Delhi University is the first university in India to offer distance education. It started offering distance education in 1962. In 1982 the first open university was set up in Andhra Pradesh. In 1985 IGNOU, a national open university was established by an Act of Parliament. ODL has grown exponentially since then. It enjoys immense popularity and enrolls millions of learners every year. Today there are several state open universities in India. Many conventional universities also have a centre/school for distance learning. ODL is offering general, professional and skill-oriented education.

IGNOU was established with a mandate to offer programmes through distance mode with flexibility like—there is no maximum age limit for admission to its programmes. It allows an extended duration for completing a programme. It allows learners many opportunities for assessment. They can take the examination for courses studied in a staggered way. Learners also get the benefit of credit transfer on re-registration.

ODL is therefore emerging as an alternative to conventional education and is providing education to the masses even in professional areas. A large proportion of Indian students are studying through distance education. It is therefore said that the future of education will be in ODL (The Hindu, 07 September 2019). To meet GER targets set by GOI, ODL is one of the key instruments out of available alternatives.

Distance education and ODL are constantly developing and technology has become a significant catalyst of development (Aras, 2019). This is because distance education initially used only printed materials. Later it used radio and television programmes but now computing devices like phones, tablets, desktops, laptops and especially the Internet are shifting distance education and ODL to-towards technology-enabled distance and online education. Technology is also changing the mode of delivery. Not only can course content be accessed online but learners can also learn interactively. For example, Web 1.0 technology provides content in the form of text, audio/video and multimedia but does not allow user-generated content. Just think of reading a newspaper online. You cannot change the content but when you use a wiki you can edit its 'content'. Thus you can interact with the content. Interactivity, therefore, means giving inputs and getting back a response. For example, you interact with your friends while using a phone.

### **What is interactivity?**

When you buy a dress online, you click on its sleeve, front, and back and the image responds. How? It gets enlarged so that you can see better. Similarly, when you navigate through an online course you can click on the eligibility, duration and so on and thus interact with the content. While studying an online course you can post inputs on the discussion forum, submit your assignments, and so on. These are examples of the user providing inputs. The screen of an ATM however allows greater interactivity and you can add inputs and get an immediate response. This is also the case when you book online tickets. However, the greatest interactivity is found when you can change (edit) the online content, for example when you use a wiki page.

#### ***Activity for Practice 1***

Interview three of your friends to find out whether they prefer ODL to classroom-based teaching. Ask them the reason for their choice.

## **7.4 E-LEARNING : CONCEPT AND APPROACHES**

What is e-learning? E represents electronic. Hence when we use electronic devices like computers, mobile phones, tablets, the internet and the like for learning there is e-learning. What about learning from audio and video programmes? When you listen to an audio book, a podcast or radio programmes for example those broadcast by IGNOU and watch television programmes, you use electronic devices for learning. You may also learn from online libraries, online platforms offering courses like the SWAYAM. However, as per some definitions, e-learning involves the use of electronic devices as well as digital media. Therefore, you may use a wide variety of technologies for e-learning but computer and computing devices and the internet are often considered to be the

most commonly used devices for e-learning. E-learning is thus ‘the learning supported by digital elec-tronic tools and media’ (Hoppe et al., 2003, 255, as cited in Basak, Marguerite & Paul, 2018).

E-learning enables the delivery of education to a large number of recipients at the same or different times (The Economic Times, 15 July 2020). It also helps in creating networks that connect people and resources. from various places. For example, a video conferencing tool brings teachers and learners together. Online libraries bring together users and resources for learning. Resources available online can be used as many times as you want to, unlike a classroom lecture that is no longer available for later use. You do not have to travel to educational institutions. Are there other benefits? Read section 7.3 to get the answer to this question and put the issue in perspective.

Is e-learning always associated with distance education? A teacher may use a computer in her class for helping learners learn. Many schools have computer labs that help students to learn. Many face to face educational institutions allow their students to access online libraries and platforms offering online courses. On the other hand, a distance education institution that uses only print medium is not using e-learning earlier, but ODL institutions increasingly started using print along with various technological devices including computers for learning.

### **What are the approaches to e-learning?**

Approaches to e-learning can be classified in many ways. E-learning can have a synchronous approach when teaching and learning are at the same time, i.e. in real-time. Teacher and learner interact at the same time. This is like using a phone or video conferencing when messages are sent and received at the same time. Asynchronous communication happens when messages are sent and received at different points in time. For example, you may read an email or a letter when you want to but your communication with a caller on phone cannot be delayed.

The E-learning approach can also be individualized when a learner learns alone or it can be collaborative when a group of learners learn collaboratively. We may develop online content collaboratively. You might have also learnt with your friends using mobile apps providing chat facilities.

E-learning may be guided by a teacher. For example, while teaching an online course, a teacher continuously guides learning. On the other hand, you will find online content, which is posted but thereafter the learner makes meaning from it in his/her own way. For example, you may read online content about the spread of COVID 19 and decide what led to it, how it can be prevented, without the developer of the content guiding learning.

E-learning may lead to certification, for example, an online course leads to certification. However, e-learning does not always lead to certification. For example, when you read an online article or watch a video, you learn but without getting a certificate for your learning. Even online courses may be available for learning but to take the test and earn a certificate.

We have discussed that e-learning may involve teaching or may not involve teaching. Online learning is covered within e-learning but often it refers to learning from online programmes and courses offered by educational institutions or other such agencies. The courses are offered using the internet. Examples of online courses developed for learning are MOOCs (see subsection 7.8.3 on MOOCs).

Courses developed for online learning aim to ‘teach’ content in a systematic manner. Online learning in this way is as per well defined objectives formulated by those offering the learning courses. The courses also have a definite curriculum and a structure comprising modules/units/sections. Online learning may also require you to register for a course to access the course content. Some instructors facilitate learning, assess learning using quizzes and tests. They may also monitor learning by keeping track of learners’ through participation in discussions, timely submission of assignments, and performance in tests.

Online courses may include resources like texts, videos, quizzes or provide content partly and suggest a list of open educational resources that learners need to use for learning. For example, many MOOCs include text and videos along with a list of websites, e-books, videos that learners need to access on their own. Hence, while e-learning may or may not lead to certification, online learning using programmes and courses are usually developed for certification. However, even online courses can be used only for learning without requiring certification like e-learning.

#### ***Activity for Practice 2***

List any three electronic devices that helped you to learn. What did you learn?

### **7.4.1 Advantages and Drawbacks of E-learning**

The above paragraphs highlight the advantages of e-learning. E-learning makes learning any time, anywhere possible. It also provides quality learning resources to those who do not have the means to attend elite educational institutions. E-learning thus democratizes educational opportunities and makes it accessible to many provided necessary infrastructure available. While teachers capable of providing quality instructions may not be available at all places, e-learning helps us to learn using resources developed by such teachers.

E-learning also makes learning affordable as learners do not have to spend money for travelling and staying in accommodations like hostels, away from home. The time saved for travelling can be used for learning. Moreover in a classroom situation teachers usually teach by delivering lectures. On the other hand, e-learning may involve content in multiple media. For example, a course may include videos, text, images, and audio. This enriches learning experiences and supports learning. We have also discussed interactivity, which may be a feature of online learning. Another benefit of e-learning is that while learning, learners learn to use technology, which is an essential requirement of the 21st century.

Are there any drawbacks of e-learning?

Like every technology-based advancement, e-learning too has disadvantages. We are mentioning a few. You may also think of some drawbacks. The drawbacks are as follows:

- **Digital divide:** Many people do not have access to advanced technologies required for accessing e-learning opportunities. Many are unable to afford a computer, smartphone, tablet and other such devices that are essential for e-learning.
- **Cost of data:** Even those having the device may have limited access to data. Access to the Internet and broadband is not the same for everyone. Those with limited access find it difficult to download large files, especially videos and spend time studying online for a long duration.
- **Pedagogy:** Online courses may dump a large amount of information in the form of text and videos and learners need to study it with occasional or rare guidance. In this situation, the learner learns alone while the potential of technology for interactive learning and group work are not utilized.
- **English:** Content for advanced level learning is often available in English. Hence, many learners find it difficult to use such courses.
- **Health:** The use of computing devices for a long duration, which is required for e-learning affects general health and eyesight.
- **Distraction:** Young learners may get distracted while using the Internet for learning and visit sites that are not related to the topic being taught, very common happening.
- **Misuse:** Access to technology can be misused. Children may get addicted to electronic gad-gets, spend too much time playing games instead of playing outdoors. Learners may also use the access to technology for watching videos and visiting websites that include objectionable content, which derails the learning process.
- **Competence:** Learners will need competence for using technology, maintaining technology, and practising safety measures while using technology for preventing viruses and other such hazards.
- **Power supply:** There should be an uninterrupted power supply (a rare phenomenon in many developing countries) for programmes that are streamed like a class organized through video conferencing.

**Check Your Progress 1**

Note: a) Write your answers in the space given below.

b) Compare your answers with those given at the end of the Unit.

1. Discuss the reasons for ODL emerging as an alternative means of education.

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2. What does being open mean in ODL?

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3. What is e-learning?

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4. Is e-learning used only in distance education?

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5. Write any three disadvantages of E- learning.

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## 7.5 BLENDED LEARNING

You know what is learning. What is blended? Blended learning involves two terms- blended, which means combined, i.e, mixed, and learning. Blended learning involves the integration of modes of learning. For example, there could be an integration of face-to-face learning within the classroom, online learning in the school's computer lab, watching a video at home and so on. However, among these modes, one mode is face-to-face learning, which is combined with online instructions (Dziuban, Graham, Moskal, Norberg & Sicila, 2018). This is the common point that runs through various definitions of blended learning. Face-to-face mode is hence one of the essential modes with which other modes are blended for blended learning. Hence, learning only by listening to audio programmes/ watching videos does not lead to blended learning. Similarly, those learning through face to face classroom lessons only are also not engaged in blended learning. Blended learning, therefore, involves a combination of traditional face-to-face instructions with technology-mediated online instructions but learners are separated from each other at least for some duration of the learning period (Siemens, Gasevic & Dawson, 2015).

Learners of a classroom are not separated from each other and they learn at the same time and the teacher sets the pace, i.e, the speed at which learners should learn. On the other hand, when they learn from home or their place of work, they learn whenever they want to, and at their own pace. Thus, in blended learning,

learners control some elements of learning like time, place, pace (Staker & Horn, 2012). Teachers however monitor both face-to-face and online learning in blended learning situations.

Blended learning thus involves mixed-mode instructions. It mixes different modes of delivering instructions and this benefits learner by giving them more flexibility in learning. According to some studies, students perform better with blended learning in comparison to single mode delivery of instructions like only online or only face-to-face learning (Siemens, Gasevic & Dawson, 2015).

Blended learning is also helpful to educational institutions as more learners can be accommodated because not every learner will be in the classroom throughout learning, and learners also learning outside the classroom, expands the learning environment (Galvis, 2018). Blended learning however requires careful planning. Teachers need to decide and plan which component should be taught in face to face mode and which one should be taught online.

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## **7.6 M-LEARNING**

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M-learning is mobile learning. It is “e-learning using mobile devices and wireless transmission” (Hoppe et al., 2003: 255, as cited in Basak, Marguerite & Paul, 2018). Hence unlike a desktop, you can use a laptop, tablet or a phone without wired connections, and these devices being portable you can learn while you are travelling. Thus m-learning not only allows any time any place learning but also helps you to learn when you are travelling. John (2005) says m-learning is made possible mainly by technologies that are hand held or palmtop devices such mobile phones, smart phones, personal digital assistants (PDAs), tablet PCs and even laptops but this list excludes desktops. John also says that the technology used for m-learning may also include games consoles and iPods.

### ***Activity for Practice 3***

Explore mobile apps and download one for learning something you would like to learn. Reflect on your learning experience. Is it better than learning in the classroom? Why?

A book helps us to learn while we travel. Does this qualify as m-learning? Why? The device used for learning needs to be an electronic device. Hence learning from a book is not m-learning but if you read a book using an e-reader, which is an electronic device, you engage in e-learning.

A variety of portable electronic devices can be used for m-learning but smart phones are commonly used for e-learning. Smartphones are being used for accessing, sharing and even creating educational content. You can record an audio or a video, make slides, capture images, edit and share these for learning. You can also download these documents. However, m-learning is not useful for learning which requires a large amount of information. Downloading and sharing long duration videos is difficult. Reading a large amount of text is also difficult as the screen size is small. A small amount of content is more suitable for m-learning. Larger files also take up space in the phone. Thus m-learning is suitable for delivering resources that are not loaded with content.



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## 7.7 U-LEARNING

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The word ubiquitous means everywhere. You may be reading while travelling, while waiting in a queue, while you are at home, at your workplace or some other place. This means you can learn ‘everywhere’. u-learning’ refers to ubiquitous learning (Casey, 2005). Apart from the place, time is also an important dimension of learning. Classrooms allow us to learn only at a fixed time but ubiquitous learning implies learning when one wants to learn. Does a book allow u-learning? Yes, but it is not enabled by technology, while the definition of u-learning involves technology-enabled learning at a place, chosen by learners. Thus m-learning and u-learning are different terms with similar meanings. M-learning is u-learning to a great extent.

You can read this unit available at IGNOU’s e-gyankosh and IGNOU’s mobile app at a time and place of your choice if you use a portable device like a tablet or a smartphone. However, unless the device is portable, u-learning would not be possible. Secondly, the technology you use should enable you to access online resources using the Internet. Tablets and laptops and other such devices are useful but like m-learning, u-learning too is often through smartphones. Hence, u-learning too is facilitated by a small amount of content, which can be accessed and shared easily.

### **An example of m-learning and u-learning opportunities.**

IGNOU-e-Content Mobile App is IGNOU’s mobile App. You don’t have to pay for downloading this app. It is available free of cost. For learning with mobile apps like that developed by IGNOU you need the Internet for downloading the app but after that even without access to the Internet, you can use it for learning. IGNOU’s mobile app has the content of all the courses of all the programmes. You can read it any time anywhere even while travelling. Your phone and apps like this allow m-learning and u-learning

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## 7.8 TOOLS AND TECHNIQUES OF E-LEARNING

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There are many tools and techniques that facilitate online learning. These tools can be used to promote self-learning, collaborative learning, creating and delivering content, and managing and assessing learning. We shall discuss two such tools -Mobile apps and LMS.

### 7.8.1 Mobile Apps

Apps are application software. You may have used the app for booking vehicles, paying bills, ordering food, chatting, checking your health and so on. Some apps are developed for teaching and include content that is delivered to facilitate learning. The content may be designed in the form of courses. You can learn music, art, foreign language, science and so on; read ebooks, hear audio books; play educational games using mobile apps. Mobile apps are thus meant for mobile devices like smartphones.

You have read about the app developed by IGNOU that allows m-learning and u-learning and that you can learn any time, anywhere, even without access to the Internet, once you have downloaded the app. You can download apps you require for learning but should download only from safe sources. Some apps are free while for some payment is necessary.

### **7.8.2 Learning Management Systems (LMS)**

What is Learning Management System (LMS)? An LMS enables instructors and students to log in and work within a password protected online learning environment for teaching and learning purposes (Bates, 2015). An LMS is therefore a programme that helps to host and deliver courseware and manage to learn, and it acts as an online platform for hosting courses and delivering it. The courses may include content in only one medium or include multimedia content with text-based content like the unit you are reading now and videos. The LMS can also help to include components like assignments, quizzes and a discussion forum in the courses. Further, an LMS helps to not only deliver the content of courses but the schedule and regulate the delivery. The components of a course may therefore be delivered as per a predetermined weekly schedule. The calendar of an LMS keeps learners informed about the schedule. A teacher can also schedule chat sessions for discussing issues related to the course/ topics taught. An LMS also computes results of tests and tracks learners' participation in learning activities and their performance. The teacher can determine whether learners are participating in online discussions with peers, submitting assignments on time, carrying out the activities required and so on. Hence, we see that an LMS helps to teach, monitor and manage to learn. Thus an LMS provides a virtual classroom environment.

#### **Authoring Tools**

LMSs are usually used for delivering online courses. Online resources like courses need to be developed. How can you develop these? You can develop these using authoring tools. What are authoring tools? An authoring tool, also known as an author ware is software. It is useful for developing e-content in various media as well as in multimedia. Authoring tools are helpful as teachers not having programming skills can also create online courses with these tools (Berking, 2016). Some author wares are suitable for developing simple e-content involving only components like text and videos. Some however help to develop more advanced level courses meant for learning complex processes, through advanced learning experiences like simulations, gaming and so on. For example course content for training, pilots involve simulations. Games are not only for entertainment but also for educational purpose and their development is more complex than putting together a course comprising text, video and quizzes.

You may try to develop online courses using free author ware. author wares usually provide a template and you can drag and drop or import components like text, videos and so on you have in your computer into the template for developing courses. You can also create text and quizzes within the template. If you have developed slides for the presentation, you will be familiar with the concept of a template for generating content. What are the components you usually include in the slides? Usually text and sometimes images, videos, audio recordings. Similarly, you can use an author ware to assemble various components comprising course ware. For example, you can use an author ware

for generating a course on learning by assembling a unit on learning, suitable images that help to understand the concept of learning, a few videos on learning and quizzes for assessing your learners' understanding of learning

### 7.8.2.1 SWAYAM

Have you explored SWAYAM? The Government of India started SWAYAM. It stands for Study Webs of Active Learning for Young Aspiring Minds. It is a platform that hosts online courses and offers them to learners. The three main objectives of SWAYAM are to enhance access to education; promote equity in education and; offer quality education. Therefore, learners can access quality education through SWAYAM. Further online courses will make anytime, anywhere learning, in other words, u-learning possible.

SWAYAM is thus a platform for courses, taught in classrooms from Class 9 till post-graduation and that are available free of cost (<https://swayam.gov.in/about> ). The courses hosted on SWAYAM comprise four quadrants. These are (1) video lectures that teach the content orally through recorded videos. (2) Text-based material for learning by reading. You can read the content online or down-load it for reading at a time of your choice. It can also be printed. (3) Self-assessment tests and quizzes to assess learning. This is similar to the check your progress on the units of this course. (4) Online discussion forum for discussions with teachers to get solutions for problems in learning. You can post your queries and problems in learning on this discussion and get answers from teachers. This makes teaching-learning an interactive process.

SWAYAM courses are although available free of cost and you can enrol, access learning materials like reading materials and videos, participate in discussions using the discussion forum, and even test your learning using the quizzes, but for certification, you need to pay the fee and take proctored exams at designated centres (<https://swayam.gov.in/about>):

There are several National Coordinators for SWAYAM courses (<https://swayam.gov.in/about>) like AICTE (All India Council for Technical Education) for self-paced and international courses; NPTEL (National Programme on Technology Enhanced Learning) for Engineering; and the like. IGNOU is also one of the national coordinators and is offering several courses.

### 7.8.3 Massive Open Online Courses (MOOCs)

MOOCs is an acronym. It stands for Massive Open Online Courses (MOOCs). The use of MOOCs for delivering courses began after technology made mass education for widespread students possible. Today MOOCs is one of the most popular modes of delivering courses. Learners prefer it because of its advantages. First, it can include a large number of learners and does not restrict admission based on age, previous qualification and other factors. Anyone can enrol in MOOCs. MOOCs thus being massive can support high enrolment. This is because of their scalability for accommodating growing numbers at a marginal cost increase (Bates, 2015).

*MOOCs are open.* This means that for studying these courses you do not have to spend money. These are usually offered free of cost and you can access learning resources, and participate in a discussion forum without paying but you may

need to pay a fee for taking the test and/ certification. However, some institutions retain the right over the course content they offer.

**MOOCs are online courses.** This implies that you need a computer or other suitable devices like a tablet or smartphone, and access to the Internet for studying but you may be allowed to download resources like videos and text-based content.

How will you select a MOOC? A MOOC includes information about the course, its benefits, the content it intends to teach, the level like basic, advanced and so on, the time a learner has to devote every week and other such pertinent information. Hence those enrolling themselves can decide whether they should enrol and which MOOC would be beneficial for them. Moreover, MOOCs allows flexibility. It allows learners to choose what they want to learn. Suppose you have been a student of Geography, you may not only learn using a MOOC in this subject but you may also enrol in MOOCs on History or music or some other subject. Thus MOOCs fulfill the learning needs as well as interests. Moreover, you can build your capacity through the opportunity provided by MOOCs for lifelong learning.

MOOCs teach courses and includes content that fulfils certain objectives. It includes quizzes and tests to ascertain whether learners have learnt as per the objectives. However, MOOCs usually include short duration courses and the content load is not very high for short duration courses. You may learn using MOOCs even while you are learning from this course.

MOOCs developed by well known institutions equalize not just educational opportunities but quality learning opportunities. Further, MOOCs offer all the advantages of online courses including interactive learning. Its discussion forum facilitates interaction with peers and teachers. MOOCs may also include projects to help learners to learn by applying the concepts learnt.

MOOCs are however suitable for delivering short duration courses that can be learnt within a few weeks/ a few months. MOOCs can therefore supplement long duration courses and programs. However, computer skills, access to technology, and knowledge of English are necessary as most MOOCs are in English. Further enrolment in MOOCs is high but the dropout rate is equally high (Bates, 2015) as learners may lose the motivation to learn on their own and complete a course.

***Activity for Practice 4***

To know more about MOOCs you may visit <https://opentextbc.ca/teachinginadigitalage/part/chapter-7-moocs/> And write your views in about 60 words.

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## **7.9 OPEN EDUCATIONAL RESOURCES (OER)**

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The term Open Educational Resources (OER) was first adopted at United Nations Educational, Scientific and Cultural Organization (UNESCO's) 2002 forum on the impact of open courseware for higher education in developing countries (UNESCO, 2002, as cited in McGreal, Miao & Mishra (2016)). Since then, the concept of OER has gained immense popularity. Many institutions are

using OERs for developing courses instead of creating content, which is already available.

OER can be defined as resources for teaching and learning and these can be in any medium, digital or otherwise, but these resources permit no-cost access, use, reuse and repurposing by other users with no or limited restrictions (McGreal, Miao & Mishra, 2016). OER is thus different from other resources. A resource for learning like this unit, which you are reading now, or maybe an image or a video may not be freely available for use and reuse. For example, you cannot use this unit in a course you develop or make it a part of a book you write. You cannot change its content and distribute it. This is because this unit has copyright. You will find many online articles that you can read only after making a payment. Even if you download and use it after making payment you cannot reuse it while developing a course, nor modify it. This is because the article is copyrighted. However, you can use, reuse, adopt and repurpose a resource, which is an OER. OERs thus help to make knowledge accessible while copyrights restrict the dissemination of knowledge.

OERs can be in the form of open textbooks, articles, units, modules or courses, images, videos and so on. McGreal, Miao & Mishra (2016) say that OERs allow anyone, anywhere, at any time, to access free educational resources. OERs hence promote u-learning and m-learning. This is because unless the resource is freely available, technology cannot help us access these.

OERs reduce the cost of education. This is because institutions do not have to invest in the development of resources that are already available as OERs. OERs also allows access to quality resources. For example, best teachers are not available for everyone but the OERs they create are especially beneficial for those having limited access to quality resources.

For educational resources to be classified as OER, they must have an open license. There are many types of licenses but for OERs the Creative Commons (cc) license is the most widely used licensing framework internationally (McGreal, Miao & Mishra, 2016). There are six types of cc licenses. For example, the CC BY license allows users to distribute, remix, adapt, and build upon the existing OER, even commercially, provided they cite the source and give the credit to the one who created it. This type of license allows maximum dissemination. There are other licenses as well but not all of these are so permissive. You can hence use reuse, revise, adapt, repurpose and redistribute OERs and even combine OERs to develop a new one but you have to abide by the condition of the license of the OER you use. For example, you can take a section from an OER add images available as OERs, add your explanations and use the end product for your class but you need to cite the sources of all the OERs you use.

### Check Your Progress 2

Note: a) Write your answers in the space given below.  
b) Compare your answers with those given at the end of the Unit.

6. State whether the following statements are True/False:
- i. Blended learning is possible while learning from a television series.  
T/F

ii. Blended learning involves learning within classrooms and online. T/F

iii. m-learning means we can learn while travelling. T/F

iv. LMS is used usually for face to face lectures. T/F

v. MOOCs are used usually for teaching programmes of long duration. T/F

7. What is blended learning?

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8. SWAYAM stands for?

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9. What do you understand by LMS?

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**7.10 LET US SUM UP**

ODL is increasingly emerging as an alternative to face-to-face teaching and learning. The evolution of technology, especially the computer and the internet is facilitating the expansion of ODL. E-learning with the help of these technologies is therefore gaining popularity. There are various approaches to e-learning. It can be asynchronous or synchronous; self-paced or paced by instructor; individualized or collaborative, and so on. Online learning is also a type of e-learning. However, online learning usually refers to programmes and courses offered with the help of the internet. It has many advantages but it also has disadvantages like many people do not have access to hardware and software; learners can be distracted; security issues are also there while engaging in online activities. Online learning can lead to blended learning. This involves the mixing of different modes of delivering instructions but one of the modes is face-to-face instruction. This allows students control over some elements of learning like time, pace. M-learning is also online learning and facilitates the mobility of learners, learning at any time, any place, using portable devices. Ubiquitous learning is learning anywhere and anytime. Technology, which is portable and allows wireless connectivity makes ubiquitous learning possible.

MOOCs are massive open online courses (MOOCs). MOOCs developed and delivered by well known institutions democratize not just educational opportunities but quality learning opportunities. Mobile apps deliver content for learning and the content may be in the form of courses. You can learn music, art, foreign language, science and so on; read e-Books, listen to audio-books; play

educational games using apps. There are also tools for creating and delivering online content. An LMS is such a tool that helps to host and deliver course ware and manage to learn. The Government of India started SWAYAM. It is also a platform that hosts online courses and offers them to learners. OERs are resources that are useful for teaching, learning and research. These resources can be in any medium like print/audio/video or a combination of these but are available in the public domain and meant for reuse, repurposing, redistributing but in keeping with the license attached to it.

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## 7.11 UNIT END EXERCISES

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1. Describe any three learning experiences you have obtained through e-learning.
2. Visit the SWAYAM platform and explore the courses available. Visit other platforms offering MOOCs and explore the courses offered. Compare the courses in terms of their relevance.
3. Enroll in a MOOC offered by an educational institution to experience online learning.
4. Download a mobile app that has been developed for educational purposes like language/science learning and explore its features.
5. Read about Creative Common Licenses.

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## 7.12 REFERENCES AND SUGGESTED READINGS

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### **7.13 CHECK YOUR PROGRESS: POSSIBLE ANSWERS**

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1. Learners select the place of study and decide whether to study at home or while travelling or at the workplace and so on; the pace of study, entry and exit points of a programme and so on.
2. Openness refers to the flexibility allowed in place, the pace of learning, choice of courses, the timing of the study, the upper age limit for admission to a course, and so on.
3. Learning with the help of tools and techniques that help to use electronic resources for learning.



4. E-learning can also be used in classroom situations. For example, many schools have computer labs for e-learning
5. Access to hardware and software and data is not equal; learners can be distracted; learners may even visit sites with objectionable content and derail their studies.
6.
  - i. False
  - ii. True
  - iii. True
  - iv. False
  - v. False
  - vi. False
7. Blended learning involves the integration of modes of learning. For example, there could be the integration of face to face learning within the classroom, online learning in the school's computer lab, watching a video at home and so on.
8. SWAYAM stands for Study Webs of Active Learning for Young Aspiring Minds.
9. An LMS is therefore a programme that helps to host and deliver courseware and manage to learn, and it acts as an online platform for hosting courses and delivering it.



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