Open Courseware: Concept, Need and Benefits

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ABSTRACT

In recent years, Internet and electronic resources have become most popular sources of information for the researchers, scholars, teachers, professionals and students. Due to the advancement of education technology many new ways of teaching-learning are emerging now a days. Greater impact of ICT and internet on the education have developed new concept of online learning and as a result of latest innovations, Open Courseware is an innovative and new idea in the field of education. The major goal of the Open Courseware to support online and digital teaching-learning activity. These Open Courseware contains the variety of material which is very useful for a learners beyond the classroom activity. OCW are the digital material which is available online for the users from the remote area with barrier of time and   distance. Open Courseware are the free and open digital publication of high quality educational materials, organized as courses.

1. INTRODUCTION

In this world various nations have different types of educational system in their countries. The requirements of one country may be different as per their culture, system and approaches for their students from classroom based learning to open and distance learning. Classroom learning has their benefits over learning but competition is increased day-by-day and students want to gain more and more knowledge. But there are so many barriers like communication, finance etc. which pool back them from various source of learning. Open courseware could solve these problems because it is free and open to all; anyone can access any type of course available at any time.

Open Courseware is a combination of two words, Open and Courseware. To understand the exact meaning of the Open Courseware, first we should know that what is Open? The word "Open" means free and freely accessible for all without any charges, from any location, any time. The word "Courseware" means, the subject contents and learning material includes audio-video lectures, digital resources, expert's lectures, presentations, notes etc. Thus, we can easily understand the concept of Open Courseware (OCW).

The Open Courseware are the digital publications which are available for free use, from any area without restriction and there is no barriers of fees.

According to **OCW consortium[1]** "An Open Course Ware (OCW) is a free and open digital publication of high quality university level educational materials. These materials are organized as courses, and often include course planning materials and evaluation tools as well as thematic content. Open Course Ware is free and openly licensed, accessible to anyone, anytime via the internet"

2. OER, OCW AND MOOCS

The open education movement is driven by a shared belief that education should be free and there should be no legal constraints on collective use of knowledge. Use of Open Educational Resources (OERs) in educational institutions leads to improved access, enhanced pedagogy, and increased sharing between educators. OER are characterised by —openness which renders it free to reuse, revise, remix and redistribute, also referred to as 4Rs **(Wiley, 2009)[2]** .

The **four R's** framework is used for assessing the extent to which an educational resource is open:
* Reuse: copy verbatim
* Revise: adapt and edit
* Remix: combine with others
* Redistribute: share with others

In the present scenario there is **5th R – Retain** is also important –

* Retain: Retain the right to make, own, and control copies of the content

Open licensing, a distinguishing feature of Open Courseware, sets it apart from other resources and enables the user to use and reuse content according to individual needs.

We may easily understand the basic difference between the Open Courseware (OCW) and Open Educational Resources (OER). Open Courseware (OCW) focuses on the sharing content that is developed specifically for the course, and on the other hand Open Educational Recourses (OER) includes any educational contents that shared under the open licence, whether or not a part of the course. Thus we can say that OCW is a subset of OER.

Differenece between OER and OCW
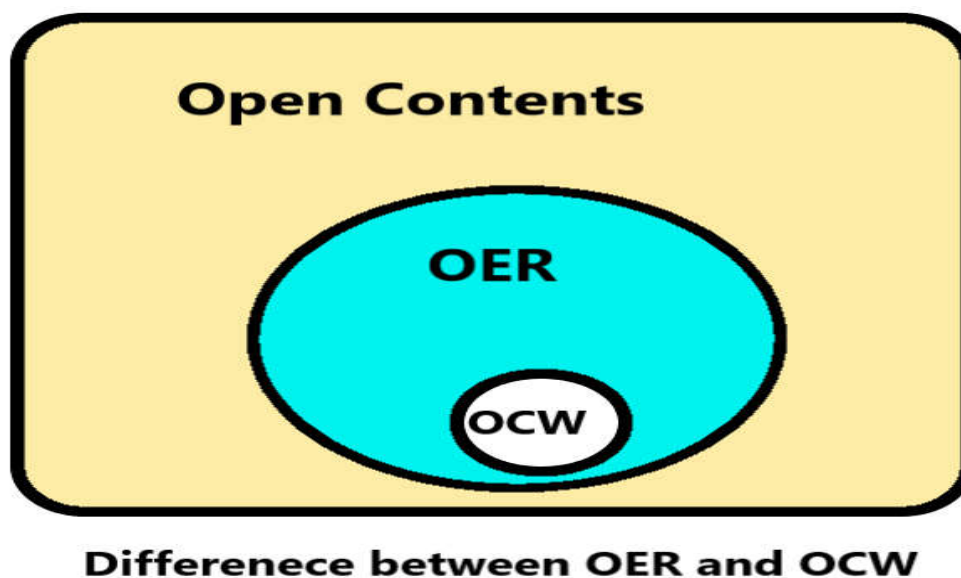
OER is not synonymous to online or e-learning as some material may be used in traditional learning environments.

MOOCs and OCWs are the form of internet based open and distance learning. MOOCs are the online courses and students have to register themselves for these courses. After the successfully completion of the course some kind of certificate and grades usually awarded by the institutes. In MOOCs courses some kind of online classes and help desks are also provide by the institutes. On the other hand OCWs are just course material. OCW are available to the students without registering themselves for a particular course. In other words we can say that OCW are simply archives of the lectures in audio-video forms or some kind of educational literature available for students in open access.

The recent rise of massive open online courses (MOOCs) has generated significant media attention for their potential to disrupt the traditional modes of education through ease of access and free or low-cost content delivery. MOOCs offer the potential to enable access to high-quality education to students, even in the most underserved regions of the world. However, much of the excitement surrounding opportunities for MOOCs in non-OECD contexts remains unproven.

3. OCWS CONCEPT

In April 2001, the **OCW concept**[3] was announced by MIT president Charles M. Vest. While acknowledging that it "looks counterintuitive in a market-driven world," Vest argued that the program would be "a natural marriage of American higher education and the capabilities of the World Wide Web. "

The original MIT OCW is derived from traditional MIT courses and consists of syllabi, online presentations, and reading recommendations, which makes it particularly handy for use by other faculty. By contrast,

Britain's Open University bases its OCW on e-learning materials and is therefore squarely focused on the needs of self-learners.

An OCW is a university course that is provided to the public without charge via the Internet. The most important and influential concept of OCW was developed by the Massachusetts Institute of Technology (MIT). MIT is still the main promoter of OCW and also the driving force behind the OCW Consortium, which coordinates OCW activities among participating universities all over the world.

With open course ware (OCW), anyone can access any course at any place in any language via internet. It may become a powerful tool to support e-learning as well as traditional classroom based learning.

The primary characteristics of OCW are that it is offered for free, does not lead to a degree, and does not grant access to faculty. The OCW Consortium requires that participating universities publish at least 10 courses as OCW under their own name. Each university determines the format for an OCW.

The need for open resources are as under:
Today, online learners demand more than mere information; as in a traditional learning environment, they expect to interact with someone representative of their teacher and to feel as though they are in a classroom, learning from other students, enjoying the learning process, and emotionally engaged with the lesson **(Ayad &Rigas, 2010)[4].**

- The explosive growth of all forms of literature
- Increasing reliance or demands on information
- Inflation in the cost of materials is the major factor because printing rates and subscription rates of the journals are raising day by day.
- Increasing cost of information
- Reduced or stagnated budget provisions are also big issues therefore, online education may be the next option of the traditional classrooms.
- Impossible to be self-sufficient to meet increasing demands of its users from own collection and it is not desirable to develop huge collections anticipating future demands.

4. PRINCIPLE OF OCW

According to **(SuamenKayal and Baisakhi Das, 2017)[5]** OCW movement was started in Germany when University of Tubingen published certain videos of lectures. But the movement took off with the educational materials developed by Massachusetts Institute of Technology (MIT) in 2012 to make core teaching material of all MIT graduate and under-graduates classes available at no cost to internet users around the world. Currently the MIT OCW site reports 127 million visits from 98 million learners from every country, 250 institutions worldwide openly publishing courses and over 15,000 courses openly published globally, 86% from institutions other than MIT. Open courseware (OCW) is based on the following principles:
- Free and open digital publication of high quality educational material available for free use and adaptation
- Generally published under open license
- Does not provide certification
- Some of the E learning and E teaching courseware are listed as follows -
- Learnhub
- Youtube Edu
- Scitable
- Commonwealth of Learning
- W3 School

- iTunes U
- MIT – OCW
- Open Yale Course
- Consera, and many more

5. OPEN COURSEWARE DEVELOPMENT

Open Courseware development may require the work of a group of professionals. Specifically:
- A course integrator to assemble all the course components and set up the course interface; this person may also be responsible for quality assurance testing;
- Graphics developers to create graphics and animations, including navigation buttons and icons;
- Multimedia developers for audio and video editing;
- HTML/XML coders if there is a need to develop tailored templates; and
- Programmers to develop complex interactions.

Not all these roles are required in every case. It depends on the mix of media and on the required level of interactivity. For example, only a course integrator and graphics developers would be needed for courses composed of only text and images, with a medium level of interactivity and created using an authoring tool. To develop interactive content, various elements are assembled (e.g. text, illustrations, animations, audio, video, interactivity). There are two main ways to do that:
- Use programming tools which have been created to develop web content (not only for e-learning) and customize them to specific e-learning needs; or
- Use special tools – known as authoring tools or authorware – which have been created specifically to develop e-learning courses.

Online course design, instructions, and supports:
The course design process has five phases:
(1) Designing content
(2) Developing content
3) Implementing content
4) Evaluating the course
5) Revising content

6. OCWS BENEFICIARIES

The main beneficiaries of OCW are self-learners, participating universities, and faculty members. Because OCW does not provide any credentials, self-learners use it solely for personal benefit. When the right material is offered, OCW can serve as a life-altering resource for those who have no other access to higher education. And at conventional universities, OCW is often blended with other forms of learning for a richer student experience.

Those who publish their own courses as OCW can present themselves as experts in a particular field to a wider audience, bringing attention to books and other materials they'd like to promote. But the costs of providing OCW should not be underestimated—the OCW must be produced, published, and hosted, each with its own assurance of quality. The educational advantages of using OCW are obvious, especially since OCW can be easily adapted in most cases, or used in its original form.

Faculty who simultaneously use and publish OCW benefit the most from it. Not having to reinvent the wheel in areas where established knowledge is available saves time and effort, which can be invested in the creation of original OCW in areas of individual expertise. In the best-case scenario, the provision and

the utilization of OCW are balanced, leading to an increased quantity and quality of material from which all parties benefit.

Global benefits
- Advances knowledge by unlocking information for the benefit of all.
- Provides open access to high-quality educational content to educators and learners for whom the materials can make the most difference
- Provides a model demonstrating the value of openness

Institutional benefits
- Builds global awareness of your institution's unique educational approach and curriculum
- Improves recruitment by helping the right students find the right programs at your institution
- Provides a resource for your students, faculty and alumni that supports learning and collaboration

Faculty benefits
- Builds awareness of your unique contributions to your field
- Fosters connections with colleagues around the world
- Preserves a record of teaching innovations and allows others to build upon them

7. THE FUTURE

OCW is still a new and evolving concept. The recently added Google search facility on the OCW Consortiums website—which enables searches across all OCW offerings —is one example of a forward-looking, super-organizational approach. But the OCW Consortium should provide even more coordination, such as by using Meta data to help locate and provide exactly the OCW sought by both self-learners and faculty. Another open issue is volunteer contributions to OCW. Volunteer instructors could play a significant role, but the volunteers must be found, trained, and motivated. We need to provide a steady and supportive teaching environment if we are to fulfil OCW's potential.

8. PLANNING YOUR EDUCATIONAL PODCAST FOR AN ONLINE COURSE

The increasing use of Information and Communication Technology (ICT) innovations has led to the phenomenal growth and use of ICT in higher education over the past decade. Contemporary educational settings are now supporting curricula that promote competency and performance, which emphasise capabilities regarding how the information will be used rather than what that information entails **(Oliver, 2002)**[6].

A podcast is an episodic series of spoken word digital audio files that a user can download to a personal device for easy listening. Streaming applications and podcasting services provide a convenient, integrated way to manage a personal consumption queue across many podcast sources and playback devices. A podcast series usually features one or more recurring hosts engaged in a discussion about a particular topic or current event.

Podcasts have been very useful for learning and teaching. They have primarily been employed as review materials for students prior to exams or lecture recordings for online students. **(Abdous, M., Facer, R., and Yen, C)** [7]. Podcasts offer unique affordances that differentiate them from other media used for teaching and learning such as written text and videos. Written text is long critiqued for turning students away from learning **(Kidd W)**[8].

Podcasting is an effective way to engage students online. Most entry-level computers tend to come with an inbuilt microphone that will suffice for a teacher-designed podcast, and simple podcast editing software such as Audacity is available free online.

9. CONCLUSION

In conclusion, we can say emphatically that e-learning is all set to change the ways of education system rendered in future. Nowadays, traditional class-room based teaching-learning evaluation is changing from lecture based method to virtual interaction mode. One of the most impressive uses of information and communication technology is the advent of e-learning. The current E-learning system mainly plays a role of learning assistance such as providing learning content or learning information, and sometime it provides channels or platform in the learning environment for discussion and interaction. OCW is still a new and evolving concept immensely beneficial to the learning community including the benefits for the teachers. The main issue is volunteer contributions to OCW. However, it needs training and motivation by providing a steady and supportive teaching environment. An OCW initiative aligns closely with the educational and public service missions of a non-profit institution of higher learning. More importantly, such an effort resonates deeply with faculty who have a passion for teaching and who have dedicated their lives to the advancement and dissemination of knowledge. This is why a key factor for success of an OCW initiative is to ensure that a core group of faculty stand squarely behind the effort and can serve as champions of the idea.

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