



## Role of OCW in e-learning: Indian Perspective

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### ABSTRACT:

According to Bernard Bull in e-learning process, "In order to create an engaging learning experience, the role of instructor is optional, but the role of learner is essential."

Learning is the tool that connects people with the world of knowledge. According to thinkers in ancient India, Vivid / Knowledge / learning / education was considered the 'third eye' of man, which gives him on insight in to all affairs and teaches him how to act; it leads as to our salvation in the mundane sphere, it leads us to all round progress and prosperity<sup>[1]</sup>.

One of the most impressive uses of ICT is the advent of e-learning. In recent years e-learning has changed sophisticatedly in teaching methods in higher education. The success of e-learning depends on the following circumstances:

- Learning effectiveness
- Cost effectiveness
- Institutional commitment
- Faculty satisfaction
- Students/learner satisfaction etc.

This paper examine the concept of open course ware which is one of the effective new types of e-learning systems raised in recent years. The aim of OCW to provide learners an opportunity gain knowledge beyond their physical classroom. These are in digital form which can be accessed online, breaking the concept of time and distance. The OCW provide the facility to access the knowledge anywhere, anyone, anytime without boundary walls.

**Keywords :** e-learning, open course ware(OCW), NDLI,

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### Scope and Objective:

- "A free and open digital publication of high quality educational materials, organized as courses".
- "An OCW is a university course that is provided to the public without charge via the Internet."

### RESEARCH METHODOLOGY :

Online survey of websites is used to analysis of data on use of OCW (open courseware).

### I. INTRODUCTION:

According to article 26 of UN General Assembly "Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit." (In fact, this was adopted and proclaimed by General Assembly Resolution 217 (III) of 10 December 1948). In 2002, UNESCO adopted the term "Open Educational Resources" (OER) to refer to the "open provision of educational resources enabled by ICT". UNESCO defined the term OER as "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 or 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" (Atkin et al. 2007).

**E-Learning:** According to MEITY (Ministry of Electronics and Information Technology) e-learning mode and the related tools provide a platform for enhanced learning, cost effective delivery, flexibility of learning at the convenience of the learner, uniform quality content delivery, re-usability of the content etc.[2]

### **What is Open Courseware?**

An Open Courseware (OCW) is a free and open digital publication of high quality college and 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 Courseware are free and openly licensed, accessible to anyone, anytime via the internet.[3]

### **Historical background:**

The precursor to the OER movement was Project Gutenberg, which was launched in 1974, and advocated for digitization and archiving of cultural works, as well as creation and distribution of eBooks. The movement has gained steady momentum over the last decade. There has been a proliferation of Massive Open Online Courses (MOOCs), with the world's most prestigious universities offering large interactive courses over the web. In addition to benefitting student learning, OER are also used to improve teacher practice in classrooms. Teacher Education in Sub-Saharan Africa (TESSA) has reached out to more than 400,000 teachers, by creating and widely sharing learning material that has been appear 2001 was a watershed one for OER. Wikipedia championed the global movement for free use and open editing of content, and now has more than 4 million articles created collaboratively by anonymous Internet users. The same year, the MIT Open Courseware (OCW) initiative to publish course content online began. Recognizing the growing importance of OER, the recent 2012 Paris OER Declaration, which was approved at the World OER Congress, made recommendations to governments worldwide to adopt OER policies and also urged them to openly license publicly funded educational material. The MIT Open Courseware project is credited for having sparked a global Open Educational Resources Movement after announcing in 2001 that it was going to put MIT's entire course catalog online and launching this project in 2002[4]. In a first manifestation of this movement, MIT entered a partnership with Utah State University, where assistant professor of instructional technology David Wiley set up a distributed peer support network for the OCW's content through voluntary, self-organizing communities of interest.[5]

The Open Courseware movement started in 1999 when the University of Tübingen in Germany published videos of lectures online for its *timms* initiative (Tübinger Internet Multimedia Server). The OCW movement only took off with the launch of MIT Open Courseware at the Massachusetts Institute of Technology (MIT) and the Open Learning Initiative at Carnegie Mellon University in October 2002. The movement was reinforced by the launch of similar projects at Yale, Utah State University, the University of Michigan, and the University of California Berkeley.

MIT's reasoning behind OCW was to "enhance human learning worldwide by the availability of a web of knowledge". MIT also stated that it would allow students (including, but not limited to, its own) to become better prepared for classes so that they may be more engaged during a class. Since then, a number of universities have created OCW, some of which have been funded by the William and Flora Hewlett Foundation.[8]

### **Relationship between free and open source access**

#### **Free software:**

Free software" means software that respects users' freedom and community. Roughly, it means that **the users have the freedom to run, copy, distribute, study, change and improve the software**. Thus, "free software" is a matter of liberty, not price. To understand the concept, you should think of "free" as in "free speech," not as in "free beer". We sometimes call it "libre software," borrowing the French or Spanish word for "free" as in freedom, to show we do not mean the software is gratis. The free software definition presents the criteria for whether a particular software program qualifies as free software. From time to time we revise this definition, to clarify it or to resolve questions about subtle issues.

#### **Open Source?**

Another group uses the term "open source" to mean something close (but not identical) to "free software". We prefer the term "free software" because, once you have heard that it refers to freedom rather than price, it calls to mind freedom. The word "open" never refers to freedom<sup>[7]</sup>.

### **TRENDS IN OPEN COURSEWARE**

1. Very rich content is developing every fraction of second and also using in the same time in open environment.
2. Personal Learning Environment (PLE) is rapidly expanding trend, any student through open source web tools and applications can learn how to organize his or her own learning through creating PLE.

3.Podcasting, screen casting, and video casting are becoming very popular ways to capture and distribute course content. For example: Google classroom provides rich broadcasting for virtual as well as interactive classrooms.

4 Folksonomic approaches to creating metadata and indexing are getting popularity with end users. A folksonomy is a decentralised, social approach to creating metadata for digital resources. It is usually created by a group of individuals, typically the resource users, who add natural language tags to online items, such as images, videos, bookmarks and text.

5.Syndication formats like RSS and ATOM are becoming popular to distribute metadata and provide access to content. The blogging community uses web feeds to share recent entries' headlines, full text, and even attached multimedia files for educational purpose through official blogs, channels etc.

6.Projects like the open source EduCommons software are making it easier than ever to do Open Courseware projects. EduCommons is a content management system made specifically for OCW users with specialized workflow, copyright tracking, etc.

7.Massive Open Online Course (MOOC) The idea to reproduce the entire classroom experience online, by allowing students to take part in an online class, being a member of a cohort, and completing a course in a scheduled manner.

### **CHALLENGES IN ESTABLISHING OPEN COURSEWARE**

- Maintenance and sustainability.
- Intellectual property and copyright issues.
- Quality assessment and enhancement.
- Financial restrictions.
- Human resistance.
- Implementation of Interoperability standards.
- Technological barrier.
- Lack of good practice

### **List of OCW initiatives in India:**

- **SWAYAM:**The 'Study Webs of Active Learning for Young Aspiring Minds' an integrated platform for online courses, using information and communication technology and covering (9<sup>th</sup> to 12<sup>th</sup>) school to post graduate level.it may be accessed on [swayam.gov.in](http://swayam.gov.in). The NIOS (NATIONAL INSTITUTE OF OPEN SCHOOLING) is promoting education through massive open online courses (MOOCs). There are 44 courses of NIOS offered on SWAYAM platform-14 at secondary level, 16 at senior secondary level, 4 vocational courses and 10 courses of Diploma in Elementary Education. The initiative aims to "bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy", Mr. Pranab Mukharjee said(former President of India,2017).(FINANCIAL EXPRESS,2017)

- **CEC** (Consortium for Educational Communication (CEC), New Delhi):CEC has one of the repositories of digital educational content in the country. Its e-content repository includes more than 40,000 video programs, 24,000 e-content modules.(CEC,2019)

- **EKLAVYA:**Massive Open Online Courses initiated by NIOS The National Institute of Open Schooling (NIOS) formerly known as National Open School (NOS) was established in November,1989 as an autonomous organisation in pursuance of National Policy on Education 1986 by the Ministry of Human Resource Development(MHRD), Government of India. NIOS is providing a number of Vocational, Life Enrichment and community oriented courses besides General and Academic Courses at Secondary and Senior Secondary level. It also offers Elementary level Courses through its Open Basic Education Programmes (OBE).Government of India through a gazette notification vested NIOS with the authority to examine and certify learners registered with it upto pre degree level courses.(<http://mooc.nios.ac.in/mooc/>)

- **e-gyankosh :** e-gyankosh is a national digital repository of education material that stores, indexes,preserves, distributes and shares the digital learning resources developed by the Open an Distance Learning Institutions in the Country. The repository hosts entire catalogue of courses offered by IGNOU is available with full- text content for free download. (IGNOU,2019)

- **e-PG Pathshala:A Gateway to Post-Graduate Courses:** e-PG Pathshala is an initiative of of the MHRD under its National Mission on Education through ICT (NME-ICT)e-PG Pathshala is an initiative of the MHRD under its National Mission on Education through ICT (NME-ICT).it is a gateway of all post graduate courses. The content and its quality is key component of educational systems,high quality, curriculum based interactive e-content in seventy subjects across all disciplines of social sciences, arts,fine arts, humanities and natural & mathematical sciences.

### **Current status of e-Module development:**

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Subjects	Papers	e-text	Self-Learning (videos)	Quizzes	Experts
70	723	20000+	19000+	30000+	3200+

- **NCERT-ePathshala:** The ePathshala, a joint initiative of MHRD, Govt. of India and NCERT (National Council of Educational Research and Training ) is developed for showcasing and disseminating al educational e-resources including textbooks, audio, video, periodicals, and a variety of other digital resources....(NCERT,2019)

- **NPTEL:** It is an acronym for National Programme on Technology Enhanced Learning which is an initiative by seven Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and Indian Institute of Science (IISc) for creating course contents in engineering and science.NPTEL was initiated in 2003 by seven IITs (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) and Indian Institute of Science (IISc). Since March 2014, NPTEL began offering online courses along with certificates to those who completed the courses successfully.

- **Sakshat : A one stop education portal:** Human Resource Ministry is planning to set up vocational educational program named, Sakshat , which is one stop educational portal for 50 crore users. The portal, developed by eGyanKosh of IGNOU, was launched by the then President of India Dr. APJ Abdul Kalam on October 2006.

The portal has following functional modules:

**Educational Resources**

“Learners can explore knowledge repository available on the net in the form of e-books, e-journals, digital repository, digital library etc. Most of the sources are open source material.”

**Scholarship**

“It is meant for scholarship holders at national and state levels to keep track of their progress. Besides, it keep them informed about various scholarship opportunities through news feeds and announcements.”

**Testing**

“Learners can horn their skills and enrich knowledge through online testing, skill upgradation tools, and guided learning environment.”

**Super Achiever**

“Links are provided to various Olympiad sites to help them in testing and upgrading their capabilities to face competitive examinations in life.”

**Interact**

“It is an ideal platform for the learners to interact with faculties, mentors and peer group in real time or asynchronously. Tools provided for interaction includes, e-mail, weblogging, webcasting, online chat, discussion forum. Other facilities include career counseling and a platform for uploading content and quiz by teachers.”

The portal also provides educational news, examination alerts, sample papers and other useful links available on the web.

**Virtual Class**

The portal offers various online courses under Spoken tutorials and NPTEL programs. The topics have been divided into four quadrants i.e. e-content, web resources, e-tutor and self-assessment.Around 15 Universities including Punjab Technical University, Barkatullah University, The Institute of Advanced Studies in Education (IASE) University and Goa University attended the online interaction.

A-VIEW is an E-Learning platform, developed by Amrita University's E-Learning Research Lab, which is state-of-the-art software for distance education and collaboration. It is available for free to all the educational institutes across India, and can be downloaded from website address, [www.aview.in](http://www.aview.in) or send an email to [aview@amrita.edu](mailto:aview@amrita.edu)

**II. CONCLUSION**

OCW is a growing and evolving concept immensely beneficial to the learning community including the benefits for the teachers. it needs training and motivation by providing a steady and supportive teaching environment. An OCW and in general e-learning will fill the gap between an educated person and the learner. 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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