

INCREASING OER FOOT PRINTS ON INDIAN LEARNING LANDSCAPE

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Abstract

India is a heterogeneous country with population from diverse ethnic, economic, religious backgrounds. This heterogeneity is well translated to its education system. There is a skewed distribution of quality education within the country due to various reasons like paucity of qualified teachers, poor infrastructure, and poverty and so on. Information communication technology (ICT) has proven a blessing in promoting the quality education to all corners of the country. It has presented us with many tools, which have helped the democratization of the quality education. Open Educational resources (OER) are among those tools, which have helped in spreading the quality education through the length and breadth of the country. They have brought quality education to the doors of a common man. Now quality lectures, study material, presentations that used to remain within the walls of certain premier institutions are easily available through ICT to everyone who wants to learn. In this context present paper is an attempt to highlight the increasing footprints of these OER on the learning landscape of India.

Keywords: OER, Open Education Resources, Information communication technology, higher education India

Introduction

Quality education is a sine qua non for the development of any nation. Educated citizens can effectively contribute to the progress of a nation. Therefore quality education always remains a priority for any nation especially a developing one. India has been a seat of learning since times immemorial and it continues to strive in reviving its past glory. Diverse cultures, socio economic status, limited access, are impediments to the widespread of the education. These impediments have been checked to an extent by providing increased access to quality educational resources through use of ICT like Open Educational resources (OER). Open Educational Resources (OERs) have become significantly important in education systems across the world. They represent the efforts of a worldwide community, empowered by the internet, to help equalize the access to knowledge and educational opportunities. These are teaching, learning and research resources that reside in public domain that permits their free

use or customization by others. OERs are sharable assets and can be used to democratize the education.

Objectives

- 1) To define OER
- 2) To elucidate the benefits of OER
- 3) To highlight various OER initiatives of India
- 4) To recommend measures for effective use of OER

Methodology

This research is based on secondary data. The data has been taken from different research reports, journals, and research papers.

Findings

The findings from the study have been presented under different headings for better comprehensibility of the readers.

Open Educational Resources

The term open educational resources first came into use at a conference hosted by UNESCO in 2002, defined as “the open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non commercial purposes” (Johnstone, 2005). OER has also been defined 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 repurposing by others” (Atkins, Brown, & Hammond, 2007).

Benefits

OER have numerous benefits some of which are :

Availability and Accessibility: most of the OER are freely available and easily accessible via internet .diverse formats like Pdf, video and audio offer varied choices to the learners to learn their courses.

Research Promotion: these resources in the form of multimedia reinforce the learning process and arouse curiosity for research. Simulations, virtual laboratories, etc effectively help students in experimenting in a virtual environment.

Cost effective: OER are freely available and require minimum costs in productions that make them cost-effective. Once created they can be shared through online platforms with worldwide audience.

Massive Outreach: They reach to everyone who is keen to learn without any prejudice to color, religion, nationality, and economic status. This way they effectively democratize the process of learning.

Independence: the diversity of different online courses provides independence to the learners in selecting their educational courses in their language and in their free time. They provide opportunities to learners to learn at their own pace without any fear.

Flexibility: OER are available in many formats suitable for different learners with different taste. A lecture is available as audio, video, or transcript thus offering an optimum flexibility

Sustainable partnerships: From last decade, OER have assumed very much significance and are viewed as indispensable tools in disseminating the quality education. World bodies like UNESCO, Common wealth of learning are actively campaigning for these, which has assumed a movement like shape. This way these have fostered close collaboration between universities, institutions, and world bodies and now many consortia have emerged on the global, scale.

OER initiatives in India

India is second most populous country in the world and has a great responsibility of educating its masses with diverse backgrounds. It has a rich heritage of teaching and learning from the days of the yoke. Ancient famous universities like Nalanda existed once on this soil. Maintaining its tradition, India is continually striding in the path of OER and a number of initiatives have been taken in this arena. Some of these worth mentioning initiatives are :

Nptel: is a joint initiative of IITs (Indian institute of technology) and IIS (Indian institute of science) funded by Ministry of human resources department under national mission on education through information communication technology provides e-learning through online Web and Video based courses in engineering, science and humanities streams. The Mission of NPTEL is to enhance the quality of engineering education in the country by providing free online courseware. Over 800 courses are complete and made available in NPTEL website. There are more than twenty disciplines covered ranging from nanotechnology to textile engineering

Consortium of Educational Communication (CEC) (www.cec-ugc.ac.in): Consortium for Educational Communication (CEC) is an autonomous body under UGC to facilitate the design and distribution of educational programmes through Information and Communication Technology (ICT). CEC is a rich source of educational content for every University, college, educator and learner in India which is freely available through multiple platforms like websites and television.

e- PG Pathshala (<http://www.inflibnet.ac.in/epgp/>) . This is one of the initiatives under national mission on education through information communication technology (NMEICT) which offers high quality, curriculum-based, interactive content in different subjects across all disciplines of social sciences, arts, fine arts & humanities, natural & mathematical sciences, linguistics and languages. It is a single gateway to 2523 modules which includes e-text, videos, tests etc.

Virtual Labs (<http://vlab.co.in>): This is a joint programme of eight IITs(Indian institute of technology), Amrita university , Dayalbagh university, NIT Karnataka and college of engineering pune for providing virtual laboratories. The project provides online experimenting facilities to the students of different subjects like computer engineering, mechanical engineering, biotechnology and biomedical engineering etc. Its objectives are

To provide remote-access to Labs in various disciplines of Science and Engineering. These Virtual Labs would cater to students at the undergraduate level, post graduate level as well as to research scholars.

To enthuse students to conduct experiments by arousing their curiosity. This would help them in learning basic and advanced concepts through remote experimentation.

To provide a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.

To share costly equipment and resources, which are otherwise available to limited number of users due to constraints on time and geographical distances.

A-VIEW (<http://aview.in>) A-VIEW (Amrita Virtual Interactive e-Learning World) is an award winning indigenously built multi-modal, multimedia e-learning platform that provides an immersive e-learning experience that is almost as good as a real classroom experience developed by Amrita e-Learning Research Lab. A-VIEW is part of Talk to a Teacher program coordinated by IIT Bombay and funded by the Ministry of Human Resource Development (MHRD) under the Indian Government's National Mission for Education using Information and Communication Technology (NME-ICT) along with various other projects in Virtual Labs, Haptics and Natural Language Processing. A-VIEW is now deployed at several IITs, NITs and other leading educational institutions across the nation.

Spoken Tutorial (<http://spoken-tutorial.org/>) : A Spoken Tutorial is a ten minute audio video tutorial on open source software, created to train students on important IT topics. Spoken Tutorials are created for self learning, using the pedagogical methods developed at IIT Bombay. The spoken part of these tutorials is dubbed in all Indian languages, to help children who are weak in English. Using a series of such tutorials, one can learn even a complicated IT topic easily. The main objective of the Spoken Tutorial project is to improve the employment potential of our students. At present, there are about 500 spoken tutorials in English and 2,000 dubbed tutorials in Indian languages.

The FOSSE (free and open source software for education) project provides free support on FOSS (free and open source software) to eliminate the use of commercial/proprietary software in education. The project activities include:

- i) Support for Self workshops on FOSS
- ii) Textbook Companion- to create documentation for FOSS through students,
- iii) Lab Migration activity to provide help in shifting from proprietary software based labs to FOSS.

e-Yantra (www.e-yantra.org): e-Yantra is an initiative to incorporate Robotics into engineering education with the objective of engaging students through exciting hands-on application of math, computer science, and engineering principles, in order to turn them into engineers who can support a rapidly growing economy. The goal of e-Yantra is to enable effective embedded systems and Robotics education across engineering colleges in India, by

- Providing training for teachers and students -- through workshops where participants are taught basics of embedded systems and programming;
- Engaging teachers and students in hands-on experiments with robots -- through competitions where participants are given robots to implement a solution; and
- Helping colleges to set-up Robotics labs/clubs – by awarding a basic set of robots and expert advice to colleges, facilitating setting up of labs, in addition to training their teachers through workshops.

Conclusion

A good number of OER initiatives have been taken in India to supplement the classroom education. These initiatives can prove instrumental in diversifying the education and improving its quality. Most of these initiatives are active in enhancing the user involvement and interactivity which contributes towards the academic productivity. However, there is need to raise the awareness of such initiatives among the students and faculty for optimum exploitation for the overall development of education in which libraries and library professionals can play an important role.

Recommendations:

To get maximum benefit from OER following recommendations are made

- a) A massive campaign must be launched in online and offline mode to raise the awareness about these resources so that everyone in need of them may know and use them.

- b) Librarians and information professionals should take it as their special responsibility to make their clientele aware about these resources.
- c) Infrastructure in schools , colleges and universities should be strengthened to support access to these resources
- d) Continuous research and development must be fostered for continuous advancement and enriched user experience.

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