

DISTANCE EDUCATION RESOURCES FOR VIRTUAL LEARNING

¹Dr B. Rajesh, ²K Ravi Kumar

¹Professor, Dept of MBA, AITAM College, Tekkali, Srikakulam, Andhra Pradesh, India

²Associate Professor, Sri Sivani College of Engineering, Srikakulam, Andhra Pradesh, India

Abstract:

Virtual learning refers to an environment where students study a digital-based curriculum taught by instructors that lecture online via video or audio. This instruction can take place either in a self-paced (asynchronous) environment or in a real-time (synchronous) environment.

In the modern digital era, digital resources have become a easily accessible source of learning for faculty as well as learners. OER(Open Educational Resources) is one such movement that encourages and enables sharing through open resources. OER can be accessed from any where and any time across the globe and can deposit, retrieve and search the digital content. In this paper the researcher is trying to find out the present scenario of OER in India. In our country there are various OER's like eGyankosh, e-PG Pathshala, National Digital Library of India (NDLI), National Programme on Technology Enhanced Learning(NPTEL), Study Webs of Active-Learning for Young Aspiring Minds.(SWAYAM), VidyaMitra, SwayamPrabha etc., The paper is based totally on secondary data from various sources. The main object

ives is to find out various OER's and their usages by the learners. It also contains the pros and cons of the OER's and the ways to over come them and suggestions for their improvement.

Key Words: OER, Digital sources, NDLI, Technology-enabled, Multimedia

1.Introduction:

The OER have gone to new heights especially in the post-covid period. Before covid also the OER had been there but its relevance was not understood to the fullest extent but thanks to the pandemic for making OER the most popular sources of earning. Now with a single click most of us are enhancing our knowledge base. Generally, these open digital resources are free i.e. everything available must be accessed free of cost. In these Open Digital sources, there are many resources, which have educational value, are popularly termed as Open Educational Resources (OERs). There are a good number of OERs available on the Internet in India almost all disciplines including Education discipline. These OERs are available in the public domain or have been released under CC license that allows sharing, accessing. The National Knowledge Commission (2007) has also highlighted the importance of OER in widening access to higher education. It has stated that the "National Educational Foundation with a one-time infusion of adequate funds must be established to develop a web-based repository of high-quality educational resources. Open educational resources (OER) must be created online through a collaborative process, pooling in the efforts and expertise of all major institutions of higher education.

Characteristics of distance learning

Various terms have been used to describe the phenomenon of distance learning. Strictly speaking, distance learning (the student's activity) and distance teaching (the teacher's activity) together make up distance education. Common variations include e-learning or online learning, used when the Internet is the medium; virtual learning, which usually refers to courses taken outside a classroom by primary- or secondary-school pupils (and also typically using the Internet); correspondence education, the long-standing method in which individual instruction is conducted by mail; and open learning, the system common in Europe for learning through the "open" university .

Four characteristics distinguish distance learning. First, distance learning is by definition carried out through institutions; it is not self-study or a nonacademic learning environment. The institutions may or may not offer traditional classroom-based instruction as well, but they are eligible for accreditation by the same agencies as those employing traditional methods.

Second, geographic separation is inherent in distance learning, and time may also separate students and teachers. Accessibility and convenience are important advantages of this mode of education. Well-designed programs can also bridge intellectual, cultural, and social differences between students. Third, interactive telecommunications connect individuals within a learning group and with the teacher. Most often, electronic communications, such as e-mail, are used, but traditional forms of communication, such as the postal system, may also play a role. Whatever the medium, interaction is essential to distance education, as it is to any education. The connections of learners, teachers, and instructional resources become less dependent on physical proximity as communications systems become more sophisticated and widely available; consequently, the Internet, mobile phones, and e-mail have contributed to the rapid growth in distance learning. Finally, distance education, like any education, establishes a learning group, sometimes called a learning community, which is composed of students, a teacher, and instructional resources—i.e., the books, audio, video, and graphic displays that allow the student to access the content of instruction. Social networking on the Internet promotes the idea of community building. On sites such as Facebook and YouTube, users construct profiles, identify members (“friends”) with whom they share a connection, and build new communities of like-minded persons. In the distance learning setting, such networking can enable students’ connections with each other and thereby reduce their sense of isolation

2.Literature Review:

The researcher has gone through various articles, books, magazines and other literature for the purpose of this article. He has also gone through various published literatures for this study. Debnath in 2018 studied on the use of open learning resources run by research scholars of the University of North Bengal. For this study he used survey method and close ended questionnaire and showed that 54.54% research scholars are using open government learning resources to a limited extent whereas 21.21% research scholars are using open government learning resources to a large extent (Debnath,2018). Chakrabarti in his paper related with institutional repositories studied 75 websites of institutional repositories through content analysis in respect of subject, language, state, policies, etc., revealed that multidisciplinary subjects oriented repositories are available in large number and nearly all are available in English. It is also observed by him that a huge number of open educational resources have been found in these repositories. (Chakrabarti,2017). Thakran and Sharma in 2016 investigated the role of OERs in Indian higher education amidst lacking of trained faculty and geographical variation regarding accessing education.

3.Significance of the Study:

Therefore, researcher wants to perform novel work in the field of Education by analyzing the collected data from online learning repositories to show how much OERs available in Education discipline in terms of number, languages, content type, etc. The result of this study will be beneficial for increasing awareness and usage of OERs in academia and academicians in Education discipline will come to know the present status of Education in these learning repositories and they will be interested to deposit more and more OERs in these repositories.

4.Objectives of the Study:

The following are the primary objectives of the present paper:

- To define and understand the concept of Open Educational Resources,
- To exemplify OER initiatives in India,
- To identify the challenges to OER in India.
- To recommend suggestions for overcoming the identified challenges.

5. Methodology:

The research is based on Primary and secondary data. The primary data has been collected from various students and faculty of various degree colleges in the district of Visakhapatnam by using questionnaire. The secondary data has been collected from various magazines, websites, news papers etc., has been used in this research.

6. Open Educational Resources: Student accessibility features]

One of the processes to enhance the learning experience was the virtual resource room, which is student-centered, works in a self-paced format, and which encourages students to take responsibility for their own learning. In virtual mode, the materials are available in the form of computer-aided learning programs, lecture notes, and special self-assessment modules.

Another mechanism for student-to-student interactions is by using a cyber tutor. This allows students with an email account to connect with course content and the staff with their related questions. The students are able to contact the staff without a face-to-face visit which saves on-campus time. The staff remains anonymous which allows for several staff to act as a cyber tutor during the course. The student does not remain anonymous, although their email address can be cryptic enough to mask their identity. Students can discuss the exams, lab reports, posters, lectures, and obtain technical help with downloading materials. The evaluation of the use of a virtual resource room is done through surveys, focus groups, and online feedback forms. The students have the flexibility of 24-hour access to the learning material.

OER are teaching, learning, and research materials in any medium that reside in the public domain. The concept of Open Educational Resources came into existence during a conference hosted by UNESCO in 2002. Since then the term has become a subject of interest and many explorations have been done by the institutions on finding out the contributions it can make to education. The initial concept on OER was developed further based on follow-ups through online discussion hosted by UNESCO.

Open Educational Resources are defined as 'technology-enabled, open provision of educational resources for consultation, use and adaptation by a community of users for non-commercial purposes.' They are typically made freely available over the Web or the Internet. Their principal use is by teachers and educational institutions to support course development, but they can also be used directly by students. Open Educational Resources include learning objects such as lecture material, references and readings, simulations, experiments and demonstrations, as well as syllabuses, curricula, and teachers' guides. According to Atkins, Brown & Hammond (2007) 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 re-purposing by others" In more simple words it can be said that OER describes the educational resources that are freely available on the internet for the use of learners, educators and educational institutions and doesn't accompany itself with the need of paying royalty, license or registration fee.

The scope of OER ranges from full courses to course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to

knowledge. But it should be noted that OER is not explicitly about e-learning as many people conclude it because of its sharing content on the digital architecture of the internet. OER does not use the digital architecture of the internet but shares printable materials stored in digital format and share it as easily as any form of multimedia.

Various Open Educational Resources:

1. eGyankosh :It is an online learning repository of Indira Gandhi National Open University, New Delhi in which the learning resources available online may be stored and accessed and shared. Actually resources are available on those subjects which are taught by the distant university. All the resources have been protected by copyright act. eGyankosh is available on Google Play Store.
2. e-PGPathshala: It is an initiative of Ministry of Human Resource Development, Govt. of India, under National Mission on Education through ICT (NME-ICT). It is a collection (Figure 2) of readymade module based study materials in 70 subjects at PG level. But these e contents are available not only for PG but also useful for UG students (e-PG Pathshala,2021).Eminent professors from our country wrote the content of the study materials which are easily available and easy to comprehend. These contents include E text, self-learning videos, learn more (References). Self-learning videos are also available in YouTube and videos can be sharable (e-PG Pathshala,2021).
3. National Digital Library of India (NDLI):National Digital Library of India popularly known as NDLI is vast collection of 60 types of OERs available online in one stop window (NDLI,2021). Now it is very popular as it is available in Mobile as App through Google Play Store on Android and also on iOS platforms. It is coordinated by IIT, Kharagpur and sponsored by MHRD, Govt. of India and in it learners find 15,00,000+ OERs as OERs from 1.5 lakh authors on different subject domain. It is also available in two vernacular languages like Hindi and Bengali. It is a single-window search facility for learners to retrieve the right resources at right time in a right way.
4. NPTEL: It is an abbreviated form of National Programme on Technology Enhanced Learning. It is an online learning platform of 600 web and video courses in various branches of engineering and technology both UG and PG level. A student can register himself for participating the courses available online and can get a valid certificate after successful completion of the courses. It is also an initiative of MHRD, Govt. of India (NPTEL,2021).
5. SWAYAM: The full form of SWAYAM is **Study Webs of Active-Learning for Young Aspiring Minds**. It is an online interactive course on all branches of knowledge except Technology based courses. It is one of the forms of Massive Open Online Courses. Any faculties of Colleges and universities can provide any innovative course idea and from that idea he or she can develop credit based course module. The courses are available free of cost to any learner. The SWAYAM platform is presently developed by MHRD and NPTEL, IIT Madras with the help of Google Inc. and Persistent Systems Ltd (SWAYAM,2021).
6. SwayamPrabha: It is free DTH channel for imparting Education for all. It is a group of 34 DTH channels which telecasts educational programmes on all days all time in a year through the GSAT-15 satellite. Actually each and every day a new content of four hours will generally be repeated 5 more times in a day so that any student can visit it in his or her convenient time. NPTEL, IITs, UGC, CEC, IGNOU, NCERT and NIOS provide content for students here. INFLIBNET Centre, Gujrat maintains this portal. After viewing

this portal, only one course on Child Development and Learning (SWAYAM Prabha Course Code – G13) in which 5 faculties are involved.

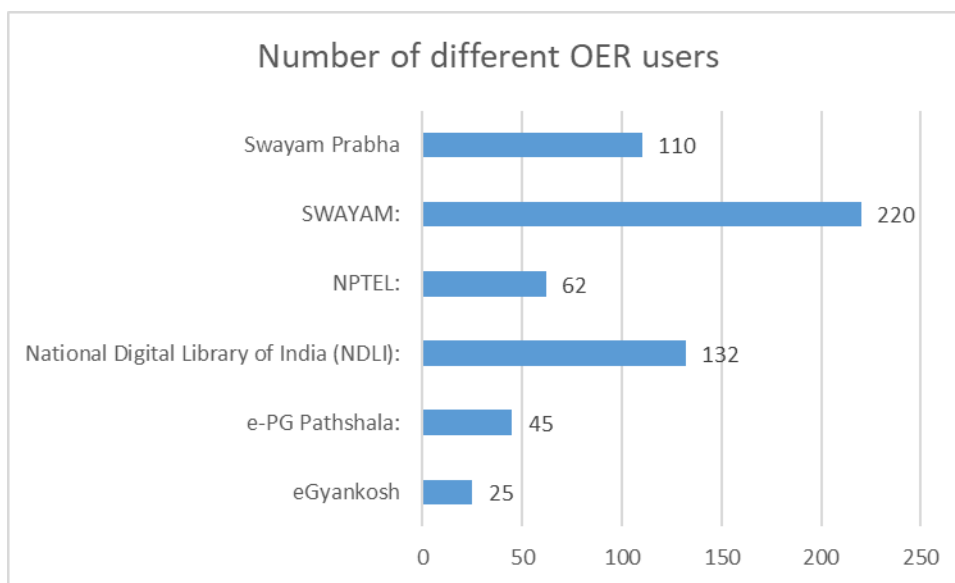
7. Data Analysis:

Data has been collected from 300 participants through questionnaire. They have been asked to express which OER has been used by them in the last three years i.e., from 2020 to 2023. The participants are students and faculty of various degree colleges in the district of Visakhapatnam. The results are given below:

Table 1: Data showing various users of OER from 2020 to 2023

S.No	Name of the OER	Number of users
1	eGyankosh	25
2	e-PG Pathshala:	45
3	National Digital Library of India (NDLI):	132
4	NPTEL:	62
5	SWAYAM:	220
6	SwayamPrabha	110

Picture 1: Number of different OER users



After analyzing the primary data it is found that out of all the OER’s, the most popular OER is SWAYAM. About 220 participants answered positively regarding the usage of SWAYAM. These participants pursued several courses through this OER. The least used OER is eGyankosh, only 25 participants used it. After SWAYAM , the most used OER is National Digital Library of India.

8. to OER In India

The appropriate use of information technology can help equalize the distribution of high-quality knowledge and educational opportunities for individuals, faculty, and institutions within India.

However, there are obstacles to the spread of OER, the following are a few important obstacles of OER in India:

Economic Issues: Teachers rarely show any interest in the development of the open courseware as most of them are already unpaid and supporting the OER movement by developing the content at no cost is of no interest to them. Therefore, the concept of open courseware is encountering resistance from educators in India.

Intellectual property: Intellectual property is still the biggest problem with OER in India. None of the content is available under the Creative Commons License to ensure the copyright. In this competitive age, universities are seeking ways to protect their intellectual property for fear that it might be stolen or used by others and without assurance of copyright they feel reluctant to share thesis/ dissertations on public portals.

Infrastructure: Where there is a shortage of power, it is difficult to imagine a strong network enabled infrastructure. Most of the Indian semi-urban and rural areas are still struggling for a sufficient amount of supply of electricity and the students in these areas are deprived of facilities being offered by ICT at their doorstep. A strong network enabled delivery infrastructure with the focus on access and delivery is required to make OER movement successful.

Lack of Awareness: In India, there is still a lot of unawareness about the availability of Open Educational Resources and the opportunities provided by among the educators and learners communities. Libraries and librarians are still to get involved in OER related work.

Technological Backwardness: OER movement in India needs technological overhauls. OERs are presently based on Web 1.0 tools whereas migration towards Web 2.0 is necessary. It is not just technological backwardness but may be non-affordability of the latest technology.

Language and/or cultural barriers: Most of the OERs available only in English, limiting their usefulness to non-English speakers. Additionally, not all resources are culturally appropriate for all audiences. The Indian learner audience is generally from the non-English background.

Lack of Quality Assessment and Assurance Provisions: Most of the OERs are not following any pre-determined standards and are not related to the teaching-learning process. Moreover, the content is not updated regularly.

Financial limitations: Institutions are generally operating in a financial crunch. Since OER generally do not generate any type of payment for their usage, there may be little incentive for institutions to update their OER or ensure that it will continue to be available online.

9. Suggestions and Conclusions:

These above mentioned online learning repositories are available free of cost and it is accessible from anywhere in the globe any time. Anyone can access the resources from these online repositories which are full of relevant open educational resources in Education discipline. It may be opined learners and academicians both have been benefitted through these online learning repositories. It is noteworthy that OERs in Education discipline available in these online learning repositories are not in a large number though helpful and enriched. Students of regular stream as well as distance stream can be benefitted all time especially during COVID situation. It is a matter of regret that the large number of academicians, researchers are not at all aware with these OERs in Education discipline and the maintenance of these online learning repositories must be done periodically as some OERs have not properly been accessed at the time of data collection. In spite of its significance, OERs may be regarded as supplement and to some extent complement to physical resources but OERs cannot be replaced physical resources.

References:

1. A Study On Open Educational Resources In Education Discipline From Indian Online Learning Repositories, Sumana Bhattacharya, The Online Journal of Distance Education and e-Learning, January 2022 Volume 10, Issue 1
2. Open Educational Resources: Issues and Challenges in India, Dr. Vishnu Kumar Balouva, **2020 IJRAR March 2020, Volume 7, Issue 1**
3. Bansal, T., Chabra, S., & Joshi, D. (2013). *Current Initiatives and Challenges to OERs in Indian Higher Education*. 15.
4. Chakrabarti, A., & Maharana, B. (2019). *LIS Open Access Institutional Digital Repositories in OpenDOAR: an appraisal*. 2757. Retrieved from <https://digitalcommons.unl.edu/libphilprac/2757> (Accessed on 28th April, 2021).
5. Das, A. K. (2011). Emergence of open educational resources (OER) in India and its impact on lifelong learning. *Library Hi Tech News*, 28(5), 10–15. <https://doi.org/10.1108/07419051111163848>
6. Das, A. K. (2014). Open Educational Resources (OER): Policy Perspectives and National Initiatives. In: CSIR-NISTADS (ed): *India - Science and Technology, volume 3*. Delhi: Cambridge University Press India, ISBN 9789384463045, pp.16-21
7. Debnath, D. (2018). *A Study on the Use of Open Government Learning Resources by The Research Scholars of University of North Bengal*. 9.

: