IMPORTANCE AND CHALLENGES OF OPEN EDUCATIONAL RESOURCES (OERS)

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ABSTRACT

Open Educational Resources (OER) provides a strategic opportunity to improve the quality of education as well as facilitate policy dialogue, knowledge sharing, and capacity building. The main aim of this paper is to discuss the various open educational resources and their importance and challenges. This paper also mentioned the various OERs available in India. This paper is useful for researchers, LIS students, professionals, etc.

Keywords: Open Educational Resources, NPTEL, e-PG Pathshala, Shodhganga

1. INTRODUCTION

When there are clear information gaps in textbooks and lectures, OERs can be used to fill them improvement over the standard course material. For instance, text can be accompanied by multimedia content like videos. Multiple formats for information presentation may facilitate students' understanding of the subject matter being taught.

Faculty and staff may need to put in more effort and provide more support when using OER to modify and tailor the content to their curricula. Because OER depends on open license frameworks, copyright and attribution concerns may arise. Before using OER, it is imperative to comprehend the licensing terms and restrictions.

Numerous Open Educational Resources (OER) projects in India have significantly aided distance learning by enabling students to access information sources from home instead of physically visiting the particular institution. By using multimedia (audio and video lectures) to disseminate information in a variety of ways, these open educational resources (OERs) support participatory teaching and learning.

2. LITERATURE REVIEW

(Tosun & Altintas, 2024) discovered that over half of the educators possess expertise about social media as an information resource and open educational resource.

(Atkinson & Fields, 2023) stated that Open Educational Resources are educational materials designed for teaching and learning that are either free or in the public domain, with the ability to be shared and altered.

(Rymbekovich & Madibekovna, 2023) The aim of this article is to demonstrate how Open Educational Resources (OER) may improve educational accessibility and affordability for all by offering high-quality educational materials at no cost for use or distribution.

(Llanda, 2023) investigated the impact of faculty members' use of open educational resources (OER). utilization of open educational materials was also shown to be high when peer influence, supportive conditions, and self-efficacy on OER use were taken into account.

(Patel, Prakash, & Parekh, 2021) explains the terms, kinds, and forms of open educational resources. Systematic studies can be used to examine copyright and licensing issues related to open educational resources (OERs) as well as their application in research, education, and teaching.

(Shushma, 2021) stated that materials for teaching, learning, and research that are available in public domains or that are published under an open license, allowing unrestricted or limited access, adaption, use, and reorganization by third parties, are helpful.

3. OBJECTIVES

- To know the various OERs avialable in India
- To aware the challenges of OERs
- Users can access information from OERs.

What are Open Education Resources?

Open Educational Resources (OER) was adopted at a UNESCO meeting in 2002 to refer to 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 (D'Antoni, 2008). Open Educational Resources (OER) are defined as instruction, self-learning and intellectual materials that use suitable tools, such as open licensing, to permit

their unrestricted re-use, constant upgrading and repurposing by others for educational purposes (Patel, Prakash, & Parekh, 2021). Open Educational Resources (OER) is defined as "digitized materials offered freely and openly for educators, students, and self-learners to use and reuse for teaching, learning, and research." OER consists of educational materials, software tools for creating, utilizing, and sharing content, and tools for implementation like open licensing. Users of OER have free access to the material and permission to 5 'R' that is Retain- Make and own copy Reuse – Use in a wide range of ways Revise- Adapt, Modify, and Improve Remix- Combine two or more Redistribute – Share with others (Havemann, 2016).

Importance of Open Education Resources

Institution-based projects, like the open courseware programs at different universities and colleges, employ staff members to create their own content. OER are crucial for a variety of reasons. The price of textbooks is increasing more quickly than the majority of other consumer products, which is the cause. Many students just do not have the money to purchase textbooks because of the escalating cost of tuition at many universities. OER removes the financial barrier to ensuring that all students have access to course resources. Students studying science, management, and engineering, for instance, can benefit from NPTEL's online resources and video lectures. OER offers the chance to improve one's own materials as well. An OER creator can witness content being used in ways they never would have envisioned by allowing other faculty members around the world to modify their work. It is possible to improve and add new chapters and sections to make the work stronger than it was. Content that exists alone on a local computer or is printed out is just not suitable for that kind of visibility and cooperation.

Lastly, instructors have access to a vast range of resources through OER for their own classrooms. Consider yourself handed an assignment at the last minute for a class you are not familiar with. A textbook could help you catch up, but what about the syllabus? The homework? The tests? OER provides an extensive range of resources from which to construct a lesson without having to begin from scratch. OER is significant because it gives teachers access to high-quality resources at a reasonable price, enhances their own work, and supplies instructors with lesson materials.

Challenges for the Open Educational Resources

Growing OER initiatives is not without its hurdles.

Lack of awareness of copyright issues: The RoMEO analysis came to the conclusion that research articles are better protected by copyright law than most academics need. This illustrated the necessity for academic institutions to provide instructors and researchers with training on copyright law. To address this issue, open content licenses were created, which allow for restricted sharing while retaining certain author rights.

Quality Control: OER quality can differ greatly, hence a consistent method of assessing resource quality would be necessary.

Sustainability of OER initiatives: the sharing and sustainable production of resources. Human resources, workflow procedures, and auxiliary technology are needed to produce OER. Content needs to be captured, digitized, checked for copyright issues, fixed, and quality checked before it can be considered finished. Computers, network connectivity, and one or more auxiliary software tools are required for all of this. Time spent by employees, creating workflow guidelines, buying computers, setting up network connections, and obtaining and managing software are all actual expenses. End users must receive copies of the completed OER as part of the second requirement. This can include sharing digital copies of the materials via the Internet, sharing digital copies of the resources on tangible media such USB "thumb" drives, DVDs, and hard drives, etc.

Permanence: If OER is not accomplished and backed up in a reliable source, it may vanish.

Time: It can take some time to create and locate OER that already exists. Because of this, academic institutions' libraries, administrators, and instructional designers are progressively offering assistance to faculty members who want to include open educational resources (OER) into their classes.

Open Educational Resources (OERs) in India

Many efforts, some of which are listed below, have also been included in open educational resources.

1. National Programme on Technology Enhanced Learnin (NPTEL)

   The Ministry of Education (MoE) of the Government of India funds the joint initiative of the IITs and IISc, known as NPTEL (National Programme on Technology Enhanced Learning), which was introduced in 2003. NPTEL began as a mission to provide high-quality education to all regions of the nation. Today, it provides almost 3000 + unique courses available for self study.

2. Study Webs of Active-learning for Young Aispiring Minds (SWAYAM)

The three guiding principles of education policy—access, equity, and quality—are intended to be realized through the SWAYAM initiative, which was started by the Indian government. This project aims to provide everyone, even the most disadvantaged, with access to the best teaching and learning tools. SWAYAM aims to close the digital divide for students who have not been able to integrate into the knowledge economy and have not yet been impacted by the digital revolution.

3. SWAYAM-PRABHA

SWAYAM-PRABHA is a group of 40 DTH channels that offers top-notch curriculum-based course contents to all educators, students, and citizens nationwide who are interested in lifelong learning. These course contents cover a wide range of disciplines, including the arts, sciences, commerce, performing arts, social sciences, and humanities subjects, engineering, technology, law, medicine, and agriculture.

4. National Digital Library (NDL)

The National Library of India (NDLI) is a digital repository that houses a significant amount of scholarly information in various formats. It offers interface support for major Indian languages for learners of all academic levels, including researchers and lifelong learners, as well as for all popular forms of access devices and learners with disabilities. Students majoring in social science, engineering, and science can profitability.

5. E-PG Pathshala

High-caliber interactive postgraduate content in the social sciences, visual arts, humanities, mathematical sciences, linguistics, and other languages is available at e-PG Pathshala. Over 22,000 e-texts and videos from over 3200 experts are available, along with over 30,000 quizzes covering 70 different areas. Viewing the study materials for the purpose of independent study is suggested for students.

6. Shodhganga

Research students can deposit their Ph.D. theses on Shodhganga, a digital repository platform with 539832 Indian Electronic Theses and Dissertations, and make them openly accessible to the entire academic community.

7. Spoken Tutorial

Spoken Tutorial is a platform for instructional information that has won numerous awards. Here, one can educate themselves on a variety of Free and Open Source Software. Anyone with a computer and a desire to learn may do it from anywhere at any time in any language of their choice thanks to our self-paced, multilingual courses.

8. The Consortium for Educational Communication (CEC)

The University Grants Commission of India established the Consortium for Educational Communication (CEC), as one of the Inter University Centers. It was founded with the intention of meeting the demands of higher education by utilizing the potent medium of television in conjunction with the sensible application of newly developed information and communication technology (ICT).

9. Directroy of Open Access Journals (DOAJ)

A peer-reviewed, open-access, community-curated online directory, DOAJ indexes and makes high-caliber journals accessible.

10. E-book directory

The E-Books Directory is an ever-expanding collection of links to freely available documents, lecture notes, and ebooks from all over the internet.

11. Free and Open Source Software in Education (FOSSEE)

FOSSEE was introduced by the National Mission on Education through ICT in 2009. Spoken Tutorial offers more than 80 tutorials for various software programs developed by FOSSEE. Self-Workshops, Conferences, Forums, Lab Migration (from proprietary to open source), Textbook Companion (port solved examples from standard textbooks using a free OSS), and Lab Migration are some of the noteworthy activities offered by this platform.

12. E-Acharya

The "e-Acharya: Integrated e-Content Portal" is a web-based interface created by the INFLIBNET Center for all e-content projects sponsored by the National Mission of Education through ICT. More than 50 e-content projects are being produced under NME-ICT across many Indian institutes, universities, and colleges. These initiatives span a wide range of subject fields, including science, arts, engineering, and social science.

13. E-Yantra

The Ministry of Education funds the robotics outreach initiative e-Yantra, which is based at IIT Bombay. The objective is to use the skills of upcoming engineers to solve issues in a range of fields, including manufacturing, services, smart city maintenance, defense, home, and agricultural.

14. E-Kalpa

e-kalpa, which is accessible in English, Hindi, Malayalam, and Kannada, is the integration of five main services: farmer issue reporting and help; synchronized farming; farmer diary; knowledge base; and alerts. In order to increase yield, it gives farmers access to the newest CPCRI technologies and farming techniques. The platform offers an online reporting feature for any kind of farming-related problem that requires prompt professional resolution.

15. Virtual Lab

A unique project of NMEICT, MHRD, and the Indian government, Virtual Labs was introduced in 2012 with the goal of "providing remote-access to Labs in various disciplines of Science and Engineering" for students at all educational levels, including undergraduate, graduate, and research community. Pupils have access to a variety of learning resources, such as "web-resources, video-lectures, animated demonstrations as well as self-evaluation."

4. CONCLUSION

Open Educational Resources (OER) are research, teaching, and learning materials in any format or any medium that are published under an open license that allows for free access, reuse, adaptation, and redistribution by others. These pieces of public information may be in the public domain or protected by copyright. This paper discusses that copyright issues, sustainiblity, and quality control are the major challenges of OERs. There were various initiatives by OERs in India that provided information to different communities.

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