International Journal of Advanced Academic Studies

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Advantages and challenges in using open educational resources

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Abstract
Open educational resources have gained very much attention after their evolution in 2002 in a forum of UNESCO. A worldwide action has been taken on its creation and sharing. Although the government in collaboration with institutions is running many projects to create and share open educational resources worldwide as research shows, there is still very little awareness about open educational resources among users. Many people are unaware of the licensing mechanism under which an open educational resource is released on a public platform. In this research paper, the researcher has tried to explore the advantages of Open educational resources over printed resources and find out the major challenges which are faced while using open educational resources.

Keywords: Open educational resources (OER), repositories, higher education

1. Introduction
The electronic revolution has made many changes in every aspect of life. Live chat and funds transfers from one place to another are being easily done, which no one can assume earlier in the previous two decades. The introduction of technology has influenced the education system also in a strong way. Virtual classes and interaction with the teacher have opened many doors of achievement for learners. The globalization of higher education promotes unique opportunities for the development of a wide range of educational resources that provide educational opportunities among people on an international level (Brown and Adler, 2008) [3]. Web 2.0 has provided the potential for reading and writing. With this help, a teacher can share their projects, works and instructions more often than ever before. Considering the importance of the sharing of educational materials in developing countries, the 2002 UNESCO forum on the impact of Open Courseware for higher education in developing countries coined the term Open Educational Resources (OER Policy CUHP, 2016) [9]. Open educational resources are technologies which are highly utilized as an extended classroom option.

2. What are open educational resources?
Massachusetts Institute of Technology (MIT) is a pioneer in introducing the movement of OER. In 2001, MIT announced Open Course Ware and placed all their learning material for free access on the internet. "This one pioneer initiative inspired many other universities around the world to make their educational content freely available for everyone which resulted in the formation of an open courseware consortium". In 2002, UNESCO firstly used the term Open Educational Resources. According to UNESCO (2002), "Open Educational Resources (OERs) as an open segment of educational resources, supported by the information and communication technology to utilize and adopt by a group of community for non-commercial purposes". Open educational resources have gained a means of facilitating free and open access to educational materials. "Teaching and learning materials in any medium, digital or otherwise that reside in the public domain or have been released under an open license that permits no-cost access, use, adaption and redistribution by others with no or limited restrictions."
It can be in the following forms:
Jpeg image
PDF/ doc and other formats of documents

Streaming videos: The real-time videos which are sent over the internet in compressed form

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Podcasts: The audio or video forms of broadcast that can be downloaded or stored.

Videos: videos of lectures, project work or other educational videos

All the above forms of OER should be released under open licenses. Open licenses are those documents which specify what can be and what cannot be done with work whether it is any form of OER. These licenses allow users to access redistribute and reuse any specific work with no or a few restrictions. These licenses are known as Creative Commons.

3. Concept of open educational resources

The concept of Open Educational Resources (OERs) can be understood with the help of Archers' realistic theory (2003). According to this theory, "The society changes as the people shape it and again reshape it. A continuous change in society can be seen in an individual or group of individuals. This change is adapted by members of society and it is reshaped again."

Now, in the same way, the OER movement took place when the educators wanted to share their knowledge with the rest of the world with an intention that necessary changes may be made or the knowledge shared with others may be modified and a quality enhancement may take place in existing knowledge and which is again left in the public domain for usage and improvement.

4. Importance of Open Educational Resources in India

Through observation of research in the field of education, it has been found that a trending education system is mostly followed by institutions in India which are mainly based on books. It is facing a paucity of quality learning materials. Most of the books are outdated and need to be revised. In the recommendation made in chapter IV of the national policy on education report of India, "For improving the quality of education, the use of information and communication technology is necessary. It assists the teachers in the classroom." Hence OERs can help the learners and the teachers to enhance their knowledge and at the same time to explore their views with others on the aforesaid topic.

5. Opportunities for using OERs (open educational resources)

The availability of OERs (Open educational resources) is always helpful in offering numerous benefits to higher education. One of the major benefits is to enhance the excellence of existing courses. It may be achieved by the adaptation, modification, and reuse of thousands of easily accessible courses in the public domain. "Open educational resources (OERs) are also helpful in improving the excellence of locally advanced contented. This may be achieved through the distribution of course content under open licenses by observing adequately peer reviews via different academics in OER communities. Staff can also obtain the skills and capabilities to enhance the excellence of course content through participation in OER communities (Kozinska *et al.*, 2010) [6]. These skills include instructional techniques, production, content/subject matter, review processes, online approaches, publishing, and presentation of educational materials.

OERs (Open Educational Resources) are freely accessible to all as per the requirement, learning style, and individual perspective. These resources are helpful to educationalists and scholars by saving their time and economic values and help to improve the excellence of Open Educational Resources by sharing them with the communities and academic entities including universities. In addition, it will further increase the status of universities in the world by sharing excellent learning materials (Husain *et al.*, 2013).It may predict that the current usage and trend of the educational community will provide a crucial place for OERs (Open Educational Resources) in the field of education and research.

6. Advantages of OERs (open educational resources)

Advantages of open educational resources may be understood in the following points:

- Flexible learning
- Collaborative learning
- Improved students' performance
- Quality of learning
- Cost consideration
- Self-directed learning

6.1 Flexible learning

It is a critical approach used to increase access to higher education. Worldwide enrollments may be predicted to get doubled by 2025 (Melsen, 2012) [15]. Open educational resources provide a chance to learn from anywhere. The key elements of flexible learning are pace, such as accelerated learning, part-time learning, or credit for prior learning; place, which may include classroom, home, and mobile learning as well as work-based and experiential learning; and mode, which refers to a delivery method (Gardon, 2014) [16]. Most open educational resources are in electronic form like videos, images, PDFs, docs etc. one can download and save it on his electronic device and may learn from any place. So it can be said that open educational resources provide flexible learning opportunities.

6.2 Collaborative learning

Laal, M., & Ghodsi, S. M. (2012) [7] found that "A major component of learning includes training students in the social skills needed to work cooperatively. Collaborative learning develops social interaction skills." Open educational resources also provide a chance for students to learn in collaboration with each other and collaborative learning may happen from peer-to-peer or in a bigger group. Peer learning refers to collaborative learning in which the students work together by making small groups. They debate together on ideas or perceptions to get the solution to the problems. It has been observed by educational researchers that the students are cooperative with each by removing their doubts, and misunderstandings and clarifying the concepts by using the thought "two or three heads are better than one. They can download and retain a copy of the learning resource and by sharing it within their groups, they can discuss with each other a topic or course of study/ assignments. They can clear their doubts in collaboration with each other and conclude.

6.3 Improved student's performance

Aslam, N., Khan, I., Alamri, L., & Almuslim, R. (2021) [1] remarked that "Student performance is an important part of the learning process. Predicting student performance is a key to identifying students who are more likely to have low

academic performance in the future." Educators as well as students both are considered a learner because education is endless. Everyone learns from the beginning of life to the long last. An educator is supposed to provide his students with quality knowledge. Open educational resources can assist both educators and students to improve their existing knowledge with the help of the quality learning materials available in related fields. With the help of quality materials, the performance of students may improve in the class.

6.4 Quality of learning
Open educational resources are developed and shared on OER platforms under an intellectual property license. These resources may be again downloaded and retained by others and after modifying the resource one may again put these resources on the internet for the usage of some other person. Through this, the quality of existing materials improves and quality learning takes place. Ossiannilsson, E. (2019) [10] explained that "High quality and relevant higher education provide students with the knowledge, skills, and transferable core competencies they need to succeed after graduation, in a high-quality learning environment that recognizes and supports good learning and teaching. In this way, the learners can get high-quality materials in their field of study."

6.5 Cost consideration
Researches reveal that buying books is a big challenge for some students. They even cannot buy any specific book due to the high cost. Open educational resources may help them as they can download and retain these kinds of books which they need in their studies.

6.6 Self-directed learning
According to Hiemstra, R. (1994) [5], "Most adults spend a considerable time acquiring information and learning new skills. The rapidity of change, the continuous creation of new knowledge, and ever-widening access to information make such acquisitions necessary." There are different forms of Open educational resources like images, videos, and interactive simulations audio podcasts etc which attract learners to study as compared to traditional printed books. This arises interest among the learners and improves their concentration in studies. So, it can be assumed that one may be self-directed to learn from these interactive and attractive materials of learning.

7. Challenges
7.1 Copyright policies
Prabhala, A. (2010) [11], revealed that "Open Educational Resources (OERs) are characterized by the fact that their copyright scope is limited using an open content license. The "all rights reserved" model of traditional copyright is replaced with a more generous "some rights reserved." Studies have shown that there is low awareness of copyright policies and licenses among the users. This hinders them from using Open educational resources.

7.2 Unavailability of Open educational resources
The open educational resource movement is a newer concept in the field of education. There are a low number of quality resources available on the internet in a specific area of study. Open educational resources are also not available in all languages which is a bigger obstacle in using Open

educational resources. One may not find the required resource due to its unavailability.

7.3 Technology-oriented barrier
Unavailability of technological assistance like a computer, Smartphone etc through which internet may be accessed is another bigger issue in India. The network signal providing internet is not good in most of the places in India. These obstacles hinder the users to integrate Open educational resources into their studies.

7.4 Time-consuming process
Searching and finding open educational resources in a particular area is another issue that restricts users from integrating them into their studies. Research has also revealed that unawareness about searching methods of Open educational resources is hindering the users. It takes much time in searching relevant Open educational resources for the specific field of study.

8. Conclusion
Though traditional boos are being used in Indian classrooms, using Open educational resources has many advantages over traditional printed books. To study with a book, there is a need fora teacher related to that area of study who can explain the terms, elaborate on the concepts etc but a teacher may not be always available while Open educational resources are those which are available all the times with learner in different forms like videos of lectures, audio podcasts, simulations, and many others. Through these kinds of Open educational resources, the user can make the concepts clear. So, it may be observed that Open educational resources have many advantages over traditional printed books. As Prabhala, A. (2010) [11] has revealed in their study that though the term has changed from all rights reserved to some rights reserved but still there is unawareness about creative commons licenses under which an open educational resource is revealed. There are many other challenges like unavailability of proper technology types of equipment and internet network which is an obstacle in the way of using open educational resources. Finding out the relevant OER in an area of study is another challenging task as open educational resources are not available in most languages. Government can initiate projects like developing Open educational resources in different languages and disciplines as Open educational resources have a very wide area in education.

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