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Research Paper Title: "**Role of Open Educational Resources in Distance Learning**"

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DECLARATION

I, the undersigned, hereby would like to explicitly state that the write-up titled, "**Role of Open Educational Resources in Distance Learning**" is original and has not been published earlier, or that it is not under consideration for possible publication elsewhere.

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Role of Open Educational Resources in Distance Learning

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Abstract

The paper explores the role of Open Educational Resources (OER) in Online Distance Education. With major developments in ICTs (Information and Communication Technology), various OERs have enriched our educational system. The in-depth utilization of various options and opportunities provided by the development of ICTs leads our education system to profound challenges and it has a serious impact on the cost, access and quality of educational contents. Besides technology, e-learning also includes instructional and educational approach to construct a thorough learning habitat, which is based on the web. Nowadays, e-learning is extensively used in higher education system as a support learning in any educational programmes. Collectively, the Open Educational Resources (OER) are coming up as most valuable and accepted alternative which improves access to a very high-quality educational content. These educational contents are released by top universities worldwide under open licenses which are free of cost. The rise in the popularity of OER has encouraged educators and researchers to become more contemporary in the style of their teaching, through the flexibility and observance. OER is used and adapted widely because of its cost-effectiveness in quality of educational content, teaching and learning. In conventional style of teaching, the educators spend most of their time in developing study materials, preparing lecture notes, creating questions and formulating answers for examinations. This paper discusses various challenges and opportunities in future by the use of OERs in our today's education system.

Introduction

The e-learning has steadily advanced with evolution of the field of Information and Communication Technologies and the emergence of various strategies in education, teaching and guidance to take most positive outcome of innovative learning opportunities.

Besides this, the rise in the popularity and availability of educational contents in Open Educational Resources (OER) brings a very

valuable opportunity to encourage the access to high standard of educational content created by many prestigious colleges and universities around the globe, under open source to allow free of cost usage of content.

OERs are contents in digital form for teaching and learning purposes, which are published online under open licenses of some prestigious organizations to enable their free usage and redesigning. These contents include complete courses of some academic programmes or the study materials such digital textbooks, their lessons, online lectures, work assessments and tests.

ICTs have administered very powerful tools for circulation of educational content over a wide spectrum. This brings improvement in access of the finest contents in the entire higher education institutions. ICTs can bring revolution to aggregate the current education system together with distance education at every level. OER holds commitment of improving the standard of education for various users in developed as well as developing countries. The educationalists are creating digital educational contents for educators and therefore the students are learning in a hassle free environment. Previously, access to quality education was possible only to those candidates who could join higher education institutions or for those who could afford buying quality educational contents. The OER movement intends to make this standard of content accessible

free of cost to the user to boost educational opportunities to unprivileged sections of the society and this leads to leading to equalize the access. By improving the quality of contents, its access and reach, OERs can play a leading role in the current scenario of distance education system together with global acceptance. In the sector of OER, there is a huge growth around the world. In our country also, a group of Indian universities has taken meaningful initiatives to ingrain the OER into our educational system. Many proactive steps have been taken by Indian Government also by providing momentum to bring forward OER concept using various educational policies for infrastructure development in the country. A group of policymaking institutions such as All India council of Technical Education (AICTE), University Grants Commission (UGC) and many other advisory bodies are providing support to the OER movement in the country in order to improve access to quality content and education.

Concept of Open Educational Resources

The Open Educational Resources can be defined as "technically-enabled educational resources which are open in nature, for references, uses and endorsement by a group of people or organization for non-profit making purposes." OERs are commonly made available free of charges over the internet. Educationalist or teachers mainly use OER for course development but the same can also be used directly by the university or non-university

students. The complete layout of Open Educational Resources include various learning objects such as classroom materials, simulators, lab experiments and demonstrations. Along with these, the curriculum and syllabus are also included. Open Education Resources (OERs) have emerged as a useful way to provide a very high standard of quality education to unprivileged section of society. OERs together with MOOCs are the leading edges of the open and distance education system and with the course of time they are playing a significant role in education systems around the globe. The term OER was first coined in year 2002 at UNESCO forum for 'open educational contents provided free of cost in developing countries for higher education.' Open educational resources include complete courses, modules of the course, educational content, e-textbooks, online streaming videos, online test engine, supporting software, and many other tools, simulators, or techniques which are used to support the access to knowledge.

OER includes following points:

- Content for Learning: Learning content includes full detailed courses, courseware, modules of content, and objectives of learning. It also includes research material and journals.
- Tools: Tools include various softwares to support the development of learning contents, which can be easily used and delivered. This also includes organizing the contents, content development tools and learning management.
- Implementation Resources: To promote the

open source publications, design principles, and contents, intellectual property licenses and copyrights needed.

To simplify the concern of managing the copyrights of the content posted on the internet, many individuals and organizations have turned to Creative Commons and the Open Courseware Consortium (McDowell, 2010). For the students and educators, OER can be valuable for many reasons.

OER has various advantages according to the perspective of students:

- Free of cost study materials
- Uninterrupted access to the resources
- Detailed topic analysis
- Upliftment in personal knowledge and
- easy access of study material

Many higher studies Universities around the globe have been using digital technology and web to develop distribution system of teaching and learning. OER is similar to other technical initiatives in education as it is also driven by many factors such as technology, economics and legalities. Recently, OER is gaining more attention due to its potential to counteract geographical, economic and demographic educational boundaries and advocate enhanced personalized learning.

Open Educational Resources in Distance Education

In current scenario of distance education system, there is a major shift towards more illustrative and

synergetic learning. The application of Open Educational Resources is promising to improve the access of a very high quality education around the world in both developing and developed counties. According to international measures, the Gross Enrolment Ratio in higher studies in our country (i.e. student's percentage enrolled in higher education) is quite low at 14% for master's programmes. Total enrolment in distance education in India constitutes 12.5% of the total enrolment at university level (MHRD, 2013). In India, distance education assists huge range of students who have diverse styles of learning, choices, with composite cultural upbringing, economical stature and geological locations. The Open Distance Learning (ODL) system aims at:

- Enhancement in the overall gross enrolment ratio
- Access of higher education to a huge segment of unprivileged population
- Bringing the learning resources to the unreached
- Giving opportunities to up-grade the skills with qualification
- Meeting all the demands of the people for their lifelong learning

The education system of India has a number of issues, which need attention and should be resolved. There is acute shortage of good educators, lack of resources, inadequate libraries and high standard of learning resources. In current scenario, ICT and its application in ODL and traditional education have a concrete effect on the use of OERs in distance education organization.

The basic principle of distance learning is to negate the geographical and demographic limits and to provide effortless reach to higher studies. The same is in conformity with the endeavour of the OER establishment. For the ODL universities, it is very important to maintain the standards with changing times and to ensure maximum utilization of digital and web technologies to meet the needs of higher educational system. In India, National Knowledge Commission also recommended the maximum use of OER and Open Access to solve the traditional education problems. The boundless availability of educational resources of high standards is crucial to change the model and structure of teaching for the betterment of comprehensive quality of education. OERs can come handy to bridge the gap between distance education and formal traditional learning and thus offering opportunities to those who could not have formal education. It is a long history of open and distance learning organization to create learning and educational resources for independent users or students who have time, money and resource constraints. Implementation of OER in Open and distance learning organization will be beneficial because of their calibration with traditional education system and distance learning programmes. Massachusetts Institute of

Technology (MIT) took initiative to make their open course available in order to position itself in the field of e-Learning and distance education ecosystem.

Scope and Challenges in the Use of Open Educational Resources

Introduction of OER has given opportunity to change the methodology of teaching-learning practices. New synergetic teaching-learning practices are coming up in our education system. With the ease of getting free of cost and high standard educational materials, now it becomes apparent for the educators to develop and learn new pedagogical layout. A few advantages of OERs in our educational system especially in developing nations are as follows:

- OER helps in saving time and resources to develop a good content in developing countries,
- OER helps in easing and aiding the knowledge sharing,
- OER makes addressing possible to bridge the digital divide by implementing capacity-building resources for educators,
- OER document and circulate primitive knowledge for future generation, and
- Uplift the quality of education at various levels.

Despite all the pros of OER and its rapid growth in the field of ODL and traditional education together with benefits to various educators and learners, there remains some critical issues that need to be resolved for further upliftment of OER. With its gradual development and wide usage, OER faces some significant challenges. There are certain bottlenecks in OER mechanism, which are also very true in Indian context. These are:

- Infrastructure barrier: To access OER, one needs a very good bandwidth of internet. Many users lack the access to reliable and fast broadband connectivity.
- Economic barrier: To access OER, initially there is a need of basic resources such as hardware and software. This could be one major barrier in implementing OER.
- Social barrier: OER is a complete technical entity, one needs to be good in technical knowledge to access all attributes of OER. Lack of technical skills could a barrier in this.
- OER development policy: Due to lack of academic recognition, there could be many educators who could access this Technology.
- Legal barrier: To obtain permission to use third party owned copyright resources may be complicated and time consuming.

Conclusion

The OER mechanism brings revolution in the field of information sharing and content creation. It has led to evolution of active and innovative participation in the development of educational content in digital format for entire educational sector. To ease the access of educational contents and resources, a number of innovative and creative ideas have emerged and implemented. A number of distance learning universities have taken initiative to make their educational contents available in public domain. Nonetheless, practice of OER in our educational system is currently in a beginning stage of implementation and a number of loopholes need be repaired. However, the overall potential for the development and growth of OER is outstanding in India which cannot be denied and many more such type of initiatives must be encouraged in the sector of distance learning in India.

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