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Open Educational Resources and their Educational Practices in Higher Education

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ABSTRACT

The impact of technology on education in the current context is essential, representing higher education teachers' and students' educational practices. In the present investigation, to achieve the proposed objectives, the netnographic technique implies the interrelation of research techniques, depending on the depth of information raised in the study's objectives. The netnographic method consists of two phases: data collection (automatic phase), which begins when someone takes care of a certain content study, and Human interpretation (manual phase). The data collections are dedicated to reading all the scientific articles and classifying the comments according to the established. Examine new school environments that demand to innovate, create, and implementation strategies necessary and effective for the teaching of quality, with the open educational practices, which are democratic and quality elements, since facilitating the needs of the context of pedagogical work and the use of tools necessary that are available to learners.

Keywords: Open Educational Resources, Educational Practices, Uses, Higher Education, Information and Communications Technology.

1. INTRODUCTION

'Open Educational Resources' mainly define freely available education material[1]–[4] or content in the form of resources. OER is an open research problem in terms of the education domain like that for Information and Communications Technology (ICT) [5]. OER has a few specific objectives and plays a huge role in improving learning and teaching practices [6]–[8]. OER plays a huge role in the research domain, also in the context of findings. In the modern-day, when our education system almost became cost-effective, that time, OER came with a hope that is delivering and producing the content freely or openly to everyone[9]. So, we can assume that it will open a view that for affecting our orthodox cum tradition education[10] system from paid to freely accessible to every class of people for getting educated. Some of the essential components to note in open education resources in intellectual and practical activity[11], technical knowledge[12], engineering, and mathematical aspect learning[13]. It is permitted to the learners in the 5R activities[14] see (Fig 1):



Figure 1. 5R's of Open Educational Resources

- a) Retain - Prepare and reserve copies of the content
- b) Reuse - Again, and again utilize the content anywhere, anytime, anyplace
- c) Redistribute - Change the content and can visible in all languages
- d) Remix - Link the content in all resources
- e) Revise - Exchange the merged content with other users

Furthermore, the essential parts of open education resources are open courses, open textbooks, open courseware, and open course frameworks[14]. It is creating an equal opportunity and equal knowledge for all[15]. The current development of "OER" has been less than seventeen years. The need for it in the education system has grown exponentially[16]. The principle of software philosophy that is easy and rotating for everyone to handle is related to "zero freedom." David Wiley and Wayne Hodgins said that a learning object is an important tool in OER, and it can be reusable(Sabitha et al., 2016; Boytchev & Boytcheva, 2019).

In India, at the different levels of education, both medium and higher, there are initiatives to improve education levels by utilizing open educational resources[18]. This modality of educational practice empowers, in the student body, a process of self-management[19], self-regulation[20], and self-evaluation[19] conceived from the instructional design and the preparation of the materials didactics by teams and complete instances dedicated to the production of materials. Anthony et al., (2019)express: "The use of technological tools and open educational resources (OER) contributes to the improvement of educational processes, and students become active students and participants in their learning process." The technology has been proven to be a striking instrument for students. Thus they are participatory since the fundamental purpose of OER is to create, share, and, collaborate in the teaching process learning with the power of resources found on the internet. For this reason, technology is a great strategy for education. Karunanayaka & Naidu, (2020)states: "That the technological appropriation of the OER by teachers so that they can incorporate them into their pedagogical work, of this form, motivation, creativity, and can be promoted collaborative work in students," and Finally, we have Coughlan et al., (2019) who say: "Students learn with easier when the teacher uses the OER." Open Educational Resources (OER) provide an opportunity for innovation[24]; some policies promote technological tools. In the various institutions of higher education, they are implementing a methodological break that favors and strengthens the educational community, promoting the use of OER[25].

Gupta & Pathania, (2020) presented the Google classroom teaching-learning process for higher education learner's collaboration. This survey study was conducted with 60 students who are learning through Google classroom learners. Then they find open educational resources are easily accessible. Finally, they said all the higher education learners are practiced regularly through open educational resources. Phelan, (2012) analyzed utilization, politics, and opportunities to learn open educational resources in higher secondary level students. They find that traditional teaching-learning methods are not suitable for this generation of learners, so higher education learners have so many learning opportunities. Chen & Burns Gilchrist, (2013) examined the open educational resources practiced through YouTube. All the higher education learners are practiced with educational YouTube videos. The learners are getting more information through audio-visual learning. Lee, 2020 examines the research Who opens online distance education, to whom, and for what? Then he researches the

above search, conducted in August 2019, returned [29]. As a result, 29 papers were selected. Searched was based on the title, abstract, and keywords of articles, using the following search terms: “open education”[30], “university”[31] “higher education”[32], [33] “online education”[34], [35] “online learning”[36]–[38] “distance education”[18], [39] “distance learning”[18], [39]. It analyzed the selected papers using a grounded theory approach[40]. And finally, the result shows that despite the growing importance of the social mission to make Education for All among diverse actors, a clear understanding of the actual process of OEP in real-life higher education settings and clarity on how those actors actually serve disadvantaged learners are lacking.

2. Methodology

In the present investigation, to achieve the proposed objectives used the netnographic method with which carried out the search and analysis of scientific production on open educational resources openings and their educational practices that allow us to have an idea of the main recent advances and discoveries, the advantages and difficulties in their implementation in the classes, areas of application and ideas of where this technological aid is directed and how to instrument we have the use of 15 items. Therefore, investigating from the netnographic technique implies the interrelation of research techniques, depending on the depth of information raised in the objectives of the study. Netnography is considered a science that has an object of study, “the social life of the network,” and a field of study, “virtual communities,”[41], [42] the framework is still embryonic and diffuse theoretical-conceptual support. According to Kozinets, (2002), he mentions that: “a research method derived from ethnographic techniques developed by anthropological research, this has increased the ability to filter complex information opportunities about Communities on the World Wide Web (w.w.w).”

The netnographic method consists of phases that are the following:

- i. Data collection (automatic phase) is a process that begins when someone takes care of a certain content study.
- ii. Human interpretation (manual phase)

The data collection is dedicated to reading all the scientific articles and classifying the comments according to the established themes. When all the comments have been analyzed, and there is a general impression on each topic being studied, researchers make a global evaluation to draft conclusions that will be delivered together with the final report.

3. Open Educational Resources in higher education

From 2002, when the term Open Educational Resources (OER) first emerged, to Today, the international community has increasingly recognized open educational resources as a tool innovative to meet the challenges of providing learning opportunities[25] throughout life for students of various levels and modes of education around the world. Human life would not be complete without professional development in the present period. Commonly, in the indication of content types of Open Educational Resources (OER) can be classified into the following types; those are Articles, Courses, Learning Object, Text Books, Videos, Test/Quiz Banks, Images, Software see Fig (2). The educational resources cum content offer diversity for improving the learning and teaching experience based on the potential, conditions, and equity[44].

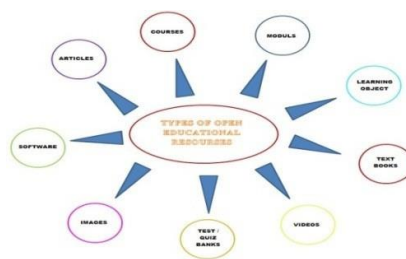


Figure 2. Types of Open Educational Resources

Open Educational Resources (OER) gave us the costless license or open key to change any open educational resource content or material based on few work rights see Fig (3) in terms of authorization or content copyright-like Adaption[45], Attribution[44], Distribution[44], Commercialization[30], and lastly Use[46]. Day by day, OER getting improved by the open and collaborative science will improve the quality and online access of OERs[47].

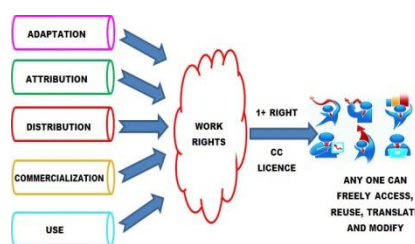


Figure 3. Work Rights of Open Educational Resources

4. Advantages of Open Educational Resources (OER)

First of all, OER contents are freely available, and this is the primary advantage of OER[48]. Secondly, OER contents are accessible from anywhere, anytime and, anyone can access them [49]. For accessing OER content, the end-user needs only two things: a smartphone and an Internet connection.[50]. OER contents are freely available on the Internet, and it mainly gave the end-user authority not to carry any book or study material like an orthodox educational system. OER contents are freely available that mainly helps the end-user to save the expenses. Mainly OER overcomes the challenges of the traditional educational system[18]. OER is used to reduce the barrier between society and countries by improving education quality and accelerating knowledge skills [51]. Open educational resources promote students' performance and innovation skills[52]. It is simple and effective to use[53]. It is a tool for stimulating learning and teaching. OER materials are easily and openly licensed, and their cost is meager. Education should be free, and OER mainly supports as well as promote that thought. Student can utilize the OER content as a resource for build up their study, and research scholar can use the OER content as their research support material, but they should give credit to those OER content so that they could get copyright strike[54]–[56].

5. Limitations of Open Educational Resources

The concept of OER is purely based on technology cum Internet access. Unfortunately, technology and Internet access didn't reach all the people, and even some people were not yet flexible with the Internet.[57]. Secondly, OER content has issues like quality also[58]. For this reason, all the OER content can't meet our expectations. OER content partially affects classroom teaching, and it causes a serious lack of communication in a student-teacher relationship[59]. Even OER has some language cum cultural barriers due to widespread of world. Sometimes researchers/students did not give credit to the OER content that causes serious copyright issues. Somewhere it causes a lack of sustainability for the content in respective of education[32], [60], [61].

6. Application and Implementing Areas of Open Educational Resources (OER)

OER is an innovation of the 21st century[7], and it highly affects the field of education. It creates an equal opportunity and equal knowledge for the end-user[44]. OER contents are highly used in online learning and remote location learning[62]. Moreover, OER contents are effective in distance mode of education too[63]. OER content had a widespread in researcher's content. It boosts the research, and the researcher can use the OER content freely. [64]. OER is spread worldwide as practices in the research field for supporting researchers and students to get educated with freely available content[65]. In India, OER and OEP are not introduced so much in the educational field, but in the next 10 years, it's going to spread in our country. In the future, in India, OER is going to widespread as a free education tool as it is. OER and OEP[66], [67] have indirectly affected GDP in terms of free of human resources and educational tools[68]–[70]. OER and OEP can be implemented in the human resource sector, also for developing the education goal of a nation. We know the importance of distance education and the importance of open education resources that provide basic resources. Therefore, we are compelled to make the biggest change in the education system of the future[65].

Open Educational Resources (OER) are educational practices[71] and research materials[51] on any medium[72], digital[25] or otherwise that reside in the public domain or have been released under an open license that allows access[73], use[74], adaptation[38], [75] and redistribution[76] without cost by others with no or limited restrictions used to support education to which you can freely access, reuse, modify and share[77]. These guidelines summarize the key issues and make suggestions for integrating open educational resources into higher education[58], [78]. The purpose is to encourage governments and institutions to invest in systematic production, adaptation, and use of open educational resources and bring it into the mainstream of higher education to improve the quality of curricula and teaching and reduce costs[79], [80]. Given the potential of OER to improve higher education systems, UNESCO and the Commonwealth of Learning[57], [57], [81]–[85] have developed these Guidelines, after extensive consultation with stakeholders in all regions of the world, to support governments, educational institutions/provider's superiors, academic staff, student bodies and guarantee/accreditation bodies and quality recognition. Open Educational Resources are composed of educational content, tools, implementation resources, and external links[86]. The OER (Open Educational Resources) in India means open educational resources are a generic denominator that includes courses and programs curricula, didactic modules, student guides, textbooks, research articles, videos, podcasts, assessment tools, interactive materials (such as simulations), databases data, software,[87] applications (including mobile applications) and any other educational material designed for use in educational practices[88], [89].

7. Result and Discussion

In educational practices, the most important task of the teacher is to accompany and direct the knowledge of the educator, and the learner is seen as the result of a personal relationship of the educator with the learner[36], [90]–[92]. The teacher must consider the content, the application of techniques[93] and didactic strategies to teach the learning and the formation of values in the student. His educational practices that occur continuously in every human being's life both come together around a central axis, the educational practices, which structure in the unity of meaning. The educational practices have four elements: the teacher, the student, the content, and environmental variables (characteristics of the school/classroom)[52], [94]. Each of these elements influences to a greater or lesser degree, depending on how they are related in a given context. The importance of educational practices is that it allows the student to develop skills to understand what is happening in your context and transform it. Understands that the educational practices require in the first instance a process of cooperation, the product of the interaction between the two basic subjects involved in it, the teacher, on the one hand, and the student, on the other[95].

Higher education institutions can play a critical role by supporting your teaching staff in creating effective educational practices environments for learners while at the same time providing continuous development opportunities professional[96], [97]. Identifying and developing learning resources is an integral part of that process[98]. The Institutions should aspire both to create OER and to use those created elsewhere. As the role of universities has evolved, so has the role of student. New trends include the need for active global citizenship[99], employability[100], transferable skills and knowledge[20], communication skills[41], creativity, and innovation[18]. Main challenges include tackling the rising costs of education (including study books)[101], [102] and identify appropriate educational courses/programs that cater to learning needs[35], [38]. The effective use of OER can help solve these challenges, both by making the content of educational programs more transparent and reducing the cost of access to them[103], [103].

With the right support, students have great potential to support higher education providers in the acquisition[104], adaptation, and production of open educational resources in collaboration with the academic staff[11], [105]. To promote these student contributions, the association's students play a role in structuring the quality of their educational experience[106]. Although the creation of educational practices environments that take advantage of the open educational resources of effective ways in educational terms is the responsibility primarily of the staff academic, student associations with the main stakeholders in higher education should be aware of pertinent issues and integrate them appropriately into their interactions with other actors in higher education.

8. Conclusion

The purpose of this article on open educational resources in the educational practices is a significant initiative to improve access to education at an international level since the creators of these materials have an as main objective that the resource is open, of course, understandable and compatible in which one of the articles recommends the use of the license of Creative Commons Attribution so that you have the freedom to copy, use and appropriate the educational material. It is also said that this strategy of applying open educational resources in the classroom will facilitate, through teacher training, strengthening of institutional capacities and skills individual for online learning. It works to develop skills to use, reuse, and produce OER for this; as suggestions, the licenses must be applied Open Creative Commons type and deposit the resources in the repositories. In the first instance, it is necessary to promote the recognition of OER that provide opportunities for access to quality learning.

Over the past few years, OER has grown exponentially to meet its needs. This development in educational technology is an essential need of the twenty-first century. In the improvement of education quality, OER brings to make the education digitalized with modern-day technology. In the present time, OER is widely used in institutions for upgrading the era of the pen-book era to the digital study era in the context of making the availability of education cum resources anytime, anywhere, to any person. Education should be free, and OER mainly supports as well as promote that thought. OER is helping to adopt for study in all situations. Open educational resources (OER) and open educational practices (OEP) are a sustainable and easy education system in the future. These free and easily available open education resources give students confidence and freedom of learning.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest concerning the research, authorship, and publication of this article.

Acknowledgements

The authors would like to thank the state universities of Tamil Nadu, India, research scholars for their participation in the study. Express appreciation to that all authors whose references we utilized in this research work.

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