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New Horizon Educational Institution,
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Perspectives and Challenges of use of OER in the context of E-Education

Prof. Mushtaq Ahmed I. Patel,
Profession in Education, DDE, MANUU, Hyderabad

Abstract

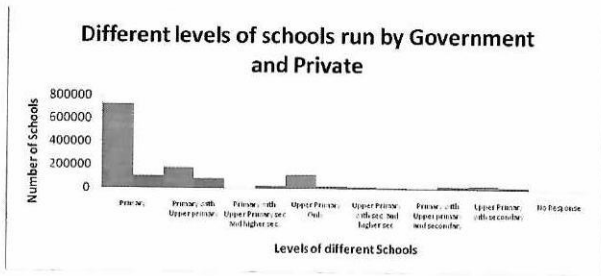
The digital era is changing various aspects of our life and the area of prime importance which is getting affected is the educational aspects of learners at different level. Every moment newer innovations appear and teachers, students and all the functionaries in the field of education get affected. In this context the only way to improve educational system is to make use of innovative technology like digital resources. The best resources available freely are Open Educational Resources (OER). The Paris Declaration on OER in 2012 has made it possible to enhance and extend the facility of open resources to all sections of the society including students and teachers. The OER lets these stake holders to create their material by combining text, picture, sound, files and video; that they can share with friends, colleagues and other educators from around the world. Thereby, this reduces geographical barriers, which is very much useful in the context of second Millennium Development Goal, that primarily focuses on Universalisation of Primary Education. In this process, OER is quite useful and it is interesting to note here that in OER the "Consumers themselves become producers of education" (Dhanarajan & Porter, 2013). The schools in the vast country like India are located at remote locations, where supporting infrastructure for OER is limited. This curtails the use of educational resources, but at the same time there can be an effort to make use of online platforms like WikiEducator, Wikipedia etc. These online forums can help to respond to needs of learners and teachers, encourage them and facilitate the sharing and exchange of teaching-learning experience and expertise at larger geographical areas without dislocating teachers alike. This platform can also act as a reservoir and repository of resources with multiple media that are useful for students and digital world. This paper intends to look at perspectives and challenges in use of OER in the context of E-education in the emerging digital world.

Key words: E-education, Open Educational Resources (OER), Perspectives, Challenges

Present Educational System in India

India has a wide network of school education, which starts from pre-primary and goes up to higher levels. This school system is classified as Pre-Primary (Nursery, LKG, UKG), Lower Primary (I-IV), Higher Primary (V-VIII), Secondary (IX, X) and Senior Secondary (XI, XII) education. These schools are affiliated to state boards, central boards and run under state, CBSE, ICSE patterns etc. The students belonging to these types and levels of schools differ in their background like social, psychological aspects and a teacher need to teach them in different way. The content and syllabus of teaching and teaching strategies are different. Hence, the teachers teaching at these types of schools have to be trained differently.

| Levels of Schools | Government Schools | Private Schools | Total |
|--|--------------------|-----------------|--------|
| Primary | 726114 | 112826 | 838940 |
| Primary with Upper primary | 175738 | 88864 | 264602 |
| Primary with Upper Primary sec and higher sec. | 3279 | 26770 | 30049 |
| Upper Primary Only | 120208 | 25621 | 145829 |
| Upper Primary with sec. and higher sec. | 24330 | 16099 | 40429 |
| Primary with Upper primary and secondary | 10414 | 25119 | 35533 |
| Upper Primary with secondary | 33818 | 24685 | 58503 |
| No Response | 68 | 6 | 74 |



source DISE publications 2013-14 data (NUEPA, 2015)

From the above information, it is evident that there are about 1413959 different schools, which are being run under different levels by the Government and Private Sector. This indicates the amount of work being done for school education. When looked at this minutely we come across different arrangements being made for these schools. The basic data with regard to school, school enrolment indicators, school indicators and teacher indicators present a complex type of network that is present at different levels of school education. The facilities being extended in the form of books, food, uniforms, cycles, school building and provisions for special children etc. also present wide variety of picture. In specific terms when the data is seen for the provision of teaching learning facilities like, books, writing boards, teaching-learning material, training of teachers etc. require large amount of money to be spent by the government exchequer. In this context, it is also felt that the training is not imparted uniformly to all the teachers and the classrooms transactions are not uniform and not to speak of the quality transactions. Hence, here we feel that there is an urgent need for utilising digital resources of learning for the student, which can be catered to the local needs. Hence, teachers professional development also become important, which can be done through Open Educational Resources. If teacher is not kept abreast then teacher's knowledge becomes obsolete, which could be overcome with provision of instant information. The OECD report (2009) indicates various developmental needs of teachers that include i. Teaching special learning needs students, ii. ICT teaching skills, iii. Student discipline and behaviour problems, iv. Instructional practices, v. Subject field, vi. Student counselling, vii. Content and performance standards, viii. Student assessment practices, ix. Teaching in a multicultural setting, x. Classroom management, xi. Social management and administration (OECD, 2009).

These areas were arranged in descending order of the international average where teachers report a high level of need for development. Hence, it is felt that the global perspective indicates various needs of teachers for their professional development.

e- Education

This is a government of India programme planned under Digital India-Power to Empower that describes for connection of All Schools connected with broadband, Free wifi in all schools, and MOOCs – development of Massive Online Open Courses. Under this the government is planning for Electronic Delivery of Services to all schools. Thus, analysis of Govt. Of India (2015) page on e-Education gives an idea that the digital resources will be made available to all schools.

In this paper the author considers that the e-Education is provision of different forms of resources available from different e-platforms which can be complementary to the school education of the children. This not only brings the content in attractive textual format, but also brings multiple media approach to the teaching-learning. Further, drill and practice opportunity will also be extended in the form of games, drill, practice and virtual laboratories etc. In the beginning it is complementary to the school library and later on can be extended to other aspects of education like monitoring, evaluation, management etc. This leads us to look at the background regarding commencement of Open Educational Resources.

The 2012 Paris OER Declaration

The term Open Educational Resources (OER) was coined at UNESCO's 2002 Forum on Open Courseware and designates "teaching, learning and research 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, adaptation and redistribution by others with no or limited restrictions. Open licensing is built within the existing framework of intellectual property rights as defined by relevant international conventions and respects the authorship of the work";

Further the World Open Educational Resource Congress

(2012) has laid down 10 step strategy for the development of OERs for member states of UNESCO. (UNESCO, 2012 OER PARIS DECLARATION, 2012)

- a. Foster awareness and use of OER.
- b. Facilitate enabling environments for use of Information and Communications Technologies (ICT).
- c. Reinforce the development of strategies and policies on OER
- d. Promote the understanding and use of open licensing frameworks.
- f. Foster strategic alliances for OER
- g. Encourage the development and adaptation of OER in a variety of languages and cultural contexts.
- h. Encourage research on OER.
- i. Facilitate finding, retrieving and sharing of OER.
- j. Encourage the open licensing of educational materials produced with public funds.

Thus, it has made it possible to enhance and extend the facility of open resources to all sections of the society including students and teachers. It has also given a road map for the governments to take initiative for popularising use of OER by encouraging open licensing.

UNESCO believes that universal access to high quality education is key to the building of peace, sustainable social and economic development, and intercultural dialogue. Open Educational Resources (OER) provide a strategic opportunity to improve the quality of education as well as facilitate policy dialogue, knowledge sharing and capacity building.

The OER lets the stake holders (students and teachers) to create their material by combining text, picture, sound, files and video; that they can share with friends, colleagues and other educators from around the world thereby, this reduces geographical barriers. In this process, OER is quite useful and it is interesting to note here that in OER the “Consumers themselves become producers of education” (Dhanarajan & Porter, 2013). Thus, the OER can help overcome large geographical

distances and bring collaborative efforts and joint efforts for education for all in the diverse country like India.

OER in the context of MDG

The eight Millennium Development Goals (MDGs-2000) were set by United Nations Millennium Declaration that ranged from halving extreme poverty rates to halting spread of HIV/AIDS and providing Universal Primary Education is the second most important goal set, which is to be achieved by 2015 (UN, 2015). The difficulty in achieving this can only be overcome by sharing common ideas, experiences especially by the developing nations. The OER provides a platform to share ideas by providing common licensing.

OER development as a source of Digital Repository

The development of OER is a collaborative effort. A beginner can take up the initiative of writing and referring based on the material available on creative commons. The conditions through which the material is shared are categorised into Attribution, Share Alike, Non-Commercial, Non-Derivative licensing conditions. (Butcher, 2011)

- The Attribution provides the material to be attributed when copied, distributed, displayed, remixed.
- The Share Alike conditions allows the user to share it as was proposed by the original writer, which may be permission to copy, distribute, display and remix etc.
- The Non-Commercial material can be used by users for any purpose but without having commercial motto.
- The Non-Derivative licensing conditions are used by the authors who do not want any alteration in their original work. This mainly restricts the commercial use of material.

In present time the work published in public domain is using combination of the one or more of the above licensing conditions. Most of the material produced by

one author is complemented by another and so on. Thus, there is growth in the knowledge produced or information shared. Such popular encyclopaedia i.e. Wikipedia has developed in different languages of the world.

WikiEducator – an OER platform

The teachers, teacher educators can make an effort to make use of online platforms like WikiEducator in their areas for their companions. These online forums for teacher can help to respond to needs of teachers, encourage them and facilitate the sharing and exchange of teaching experience and expertise at larger geographical areas without dislocating themselves. This platform can also act as a repository of sources with multiple media that are useful for teachers in professional growth. (WikiEducator, 2014)

The WikiEducator is a continuously evolving community intended for the collaborations:

- planning of education projects linked with the development of free content
- development of free content on Wikieducator for e-learning
- work on building open education resources (OERs) on how to create OERs
- networking on funding proposals developed as free content

The user can just register with the WikiEducator to start developing the content and sharing it. This platform provides training to the new user, group discussion, mailing, cluster of resources, country news,

Perspectives and Challenges of use of OER in E-education

The perspectives of use of OER are large in number and some important aspects are bulleted in the following section.

Perspectives

- The sharing of knowledge takes place among different stakeholders working in different

institutions.

- The use of OER helps in enhancement of public image of the user institution as it is available in public scrutiny as well as benefit.
- The use of resources is not restricted to those available in the institute where as expertise from different institutes can be used.
- This attracts Alumni to participate in development of institutional OER.
- The OER makes the text, audio, video, multimedia resources available to all learners, who can also think creatively.
- The OER puts learner as an investigator, who has to make his learning organised.
- The OER entrusts choice of courses and flexibility to all the learners, when compared to restricted choices in conventional learning.
- The global accessibility and global reach marks the important characteristics of OER, where as rest of courses give local access and local information.
- The teacher can customise teaching material and learner can systematise his learning.
- The OER works for development of teaching/ learning community, which can bring reforms in educational set up.
- The OER can fill the gaps of dearth of teachers in school and work for bringing quality in educational transactions.

Challenges

Although there is continued growth in availability of OER, but there are large number of challenges, and some are discussed in the following.

- The developing countries are unable to meet the requirements of the cost as large network of

computers, trained personnel are pre-requisite, and that too at school education, it is quite difficult.

- The process of use of OER requires more effort due to innovative ideas and there is reluctance of change by teachers, students and systems as a whole, in formal schooling pattern.
- The use of OER resources requires training of all stakeholders in developing, using, remixing etc.
- All OER content cannot be confirmed as of quality and hence quality assurance has to be ensured by users themselves.
- Most of the educators feel that it is an effort away from textbook mentality and hence, reduces use of text books.
- There is possessiveness by user and creator, and hence good content does not come into public domain.
- There is information overload and redundancy of content available and hence user faces difficulty in usage.
- There is lack of student support services in use of OER, which is the backbone of distance programmes.
- Production and making available the OER content in indigenous / local languages for vernacular medium schools is difficult task.

Conclusion

Despite of various challenges of OER, the time has come where OER has to be used in both the school education and higher education. The need for equipping our schools to make use of digital resources in the form of OER should be an ongoing and continuous effort. These efforts can only be strengthened by providing relevant OER trained teaching fraternity at schools in the form of Librarians and there is a need to have governmental and private efforts in this regard. The teachers serving at schools must also strive for development of OER

sources. There is also a need for research in use of OER in school education.

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