

Open Educational Resources in India

– A Study of Attitudes and Perceptions of Distance Teachers

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INTRODUCTION

Open Educational Resources (OERs) have become significantly important in education systems across the world. They represent the efforts of a worldwide community, empowered by the internet, to help equalize the access to knowledge and educational opportunities. These are teaching, learning and research resources that reside in public domain that permits their free use or customization by others (Bissell, A 2007). According to Smith and Casserly (2006), OERs are sharable assets. Between 2005 and 2007, a large community of interest of more than 600 members from more than half of the 192 Members States of UNESCO took part in online discussions on OERs (www.unesco.org).

MIT OpenCourseWare Movement

MIT OpenCourseWare (MIT OCW) is a remarkable story of an institution rallying around an ideal, and then delivering on the promise of that ideal. MIT OCW makes the course materials of almost all MIT's undergraduate and graduate programmes available on the web, free of charge, to any user anywhere in the world. At present, there are as many as 1800 (www.ocw.mit.edu) courses covering various disciplines.

UNESCO's Initiative

UNESCO's initiative in 2002 resulted in the free access to certain journals. A little later Creative Commons announced its online licensing system. UNESCO's communication networks helped it become popular and widely used throughout the developing world. Further, UNESCO convened the Forum on the Impact of OpenCourseWare for Higher Education in developing countries. Out of that Forum emerged the term Open Educational Resources (OERs). UNESCO action related to OERs was concentrated on awareness raising in Member States on the potential of sharing educational materials as OERs.

The Commonwealth of Learning (COL) Initiatives

The COL has taken up several initiatives for development and promotion of OERs in commonwealth countries. Learning4Content is one of the COL's initiative to build the skills of educators to develop OERs using wiki technology. The project builds upon the spirit of voluntarism that characterises the wiki and free knowledge communities. Another project of COL is eLearning for Education Sector Development aimed at converting ODL materials into "wiki" format through WikiEducator. COL is also co-ordinating the development of a Virtual University for Small States of the Commonwealth (VUSSC). The VUSSC members have started their first project to create OERs, using existing available course content which will be made available via the Internet (www.col.org).

UKOU Experience of Open Learn and Other International Initiatives

The Open University is the first higher education institution in the UK to make its educational resources freely available online. The William and Flora Hewlett Foundation (www.hewlett.org) agreed to grant towards the cost of the Open University's Open Learning Pilot that started in April 2006.

The other important international initiatives in creating and promoting the use of open educational resources include the initiatives of OER dg Community (www.dgfoundation.org) launched by UNESCO, online discussions forum related to Free and Open Source Software (FOSS) by the UNESCO's International Institute for Educational Planning (IIEP) and Global Library Services Network (www.glsn.com)

OERs INITIATIVES IN INDIA

Inter-University Consortium for Technology-Enabled Flexible Education and Development at IGNOU (IUC-TEFED), India

The IUC-TEFED was established in India at IGNOU (www.ignou.ac.in) in 2004 as an education, training, development, R&D and service centre on ICT-enabled interactive multimedia and online education for the distance education system in the country. It undertakes national and international collaborative R&D activities for appropriate technology applications for education, training, research and extension. IUC-TEFED aims at transforming the conventional distance learning to modern ICT-enabled, multimedia based, online and blended learning.

BITS' Initiative

The Birla Institute of Technology and Science (BITS) has brought around 14,000 books to students, research scholars and teachers at the click of a mouse. BITS has tied up with '24X7 Learning', a leading e-learning company in India. Students can directly pick up books from the e-shelves of 290 publishers. The wide range in the cyber library covers IT Pro, Business Pro, Exec Summaries, Finance Pro, Office Essential and Engineering Pro in a searchable format (www.i4donline.net).

Digital Library of India

The Digital Library of India is hosted at the Regional Mega-scanning Centre at IIIT, Hyderabad. Its vision is to digitize all recorded knowledge in the world. The vision of the website states: "For the first time in history, all the significant literary, artistic, and scientific works of mankind can be digitally preserved and made freely available, in every corner of the world, for our education, study, and appreciation and that of all our future generations." Currently, it is undertaking the million book project, and digitizing non-copyrighted materials. It is a collaborative project of over 21 institutions in India. (<http://dli.iiit.ac.in/>).

OBJECTIVES OF THE STUDY

The objectives of this study are:

- To find out the extent of awareness regarding OERs among the distance teachers in select Indian distance education institutions;
- To examine the degree of involvement of distance teachers in the development and use of OERs;
- To study the degree of institutional support in the development of OERs; and
- To understand the perceptions of distance teachers about the OERs, specifically in terms of access, cost, content, localization, quality, utility and impact.

METHODOLOGY

Keeping the objectives of the study in view, a questionnaire (with response pattern on a 5-point scale) was developed to elicit information from the selected distance teachers with regard to the access, cost, localization, quality and impact of OERs. The information thus collected is essentially qualitative and descriptive data.

The study is exploratory in nature. A total of 200 questionnaires were personally distributed and mailed among the teachers of various distance education institutions in the country. The number of questionnaires administered in an institution is based on the number of teachers working in that open/dual mode university and its type. The details of the institutions and the number of questionnaires administered are given in Table 1

Table 1
Respondents from Different Distance Education Institutions

Institution	Number of Questionnaires Mailed/Distributed	Number of Questionnaires Received	Number of Questionnaires Used
Indira Gandhi National Open University (IGNOU)	50	31	27
Dr. B.R. Ambedkar Open University (BRAOU)	50	27	22
CAP Foundation (CAP)	50	37	35
Moulana Azad National Urdu University (MANUU)	10	3	3
Madurai Kamaraj University (MKU)	10	2	2
Other Institutions	30	18	16
Total	200	118	105

The questionnaires were administered among the teachers of the following distance education institutions: IGNOU, India's National Open University; BRAOU, India's first State level (provincial) Open University; and CAP Foundation, an NGO in Hyderabad providing distance education at school level covering the entire country through e-learning. The other institutions covered by the study include: MANUU, a National Language (Urdu) dual mode University; MKU, State level dual mode University, Andhra Pradesh Open School, a State funded distance school education institution; and State Institute of Education, a state funded Media Institution. The sampling method used is convenience sample technique and care is taken to include different types of teachers engaged in distance education academics and other academics such as media/educational technologists, learner support functionaries and academic tutors and non-academic counsellors. Further, representation is ensured to vast geographical area in the country.

PROFILE OF RESPONDENTS

The profile of the respondents covered by the study is presented in Table 2. The details regarding their age, gender, designation, teaching and administrative experience are furnished in the table.

Table 2
Profile of Respondents

Particulars	Frequency	Percent
DE Institution		
IGNOU	27	25.7
BRAOU	22	21.0
CAP Foundation	35	33.3
MAANU	2	1.9
MKU	3	2.9
Other Institutions	21	20.0
Age		
20 - 30 years	32	30.5
31 - 40 years	21	20.0
41 - 50 years	25	23.8
Above 50 years	24	22.9
No Answer	3	2.9
Gender		
Male	84	80
Female	21	20
Designation		
Academics	34	32.38
Other Academics	33	31.43
Academic Counselor	36	34.29
No Answer	2	1.90
Distance Teaching Experience		
No Experience	8	7.62
Less than 5 years	53	50.48
6 - 10 years	5	4.76
11 - 15 years	10	9.52
16 - 25 years	25	23.81
Above 25 years	4	3.81
Total Administrative Experience		
No Experience	28	26.67
Less than 5 years	40	38.10
6 - 10 years	9	8.57
11 - 15 years	5	4.76
16 - 25 years	13	12.38
Above 25 years	10	9.52

DEGREE OF INVOLVEMENT OF TEACHERS IN OERs

The information provided by the respondents regarding their involvement in the activities of OERs is presented in Table 3.

Table 3
Degree of involvement of teachers in the activities of OERs

N = 83

	Particulars	Very large extent	Large extent	Considerable extent	Limited extent	No not at all
A	Use of Educational Content	31	24	20	4	4
B	Production of Open Educational Content	23	15	14	10	21
C	Use of Open Source Software (OSS)	19	11	16	16	21
D	Production and Development of OSS	19	7	12	15	30

It is evident from the table that 90.36% of the respondents are making use of the educational content. 62.65% of the respondents stated that they are involved in production of open educational content. While 55.42% are users of Open Source Software (OSS), 45.78% are involved in the production and development of OSS. It may be inferred from this analysis that the respondents are actively involved in production and use of educational content. On the other hand, the extent of development of OSS and its use is comparatively less.

DEGREE OF INSTITUTIONAL SUPPORT IN THE DEVELOPMENT OF OERs

The information regarding the institutional support of OERs is presented in Table 4.

Table 4
Degree of institutional support in the development of OERs

N = 88

	Particulars	Very large extent	Large extent	Considerable extent	Limited extent	No not at all
A	Use of Educational Content	33	28	16	3	8
B	Production of Open Educational Content	33	15	17	5	18
C	Use of Open Source Software (OSS)	21	16	22	12	17
D	Production and Development of OSS	21	11	21	12	23

As evident from Table – 4, 87.5% of the respondents stated that their institutions are supporting the use of the educational content and 73.86% of the respondents stated that their institutions are promoting the production of open educational content. In respect of OSS 67.05% respondents feel that their institutions are encouraging the use of OSS. Regarding the production and development of OSS, 60.23% respondents stated that their institutions are supporting the activity.

PERCEPTIONS OF DISTANCE TEACHERS REGARDING OERs

The perceptions of the respondents related to different aspects of OERs are summarized in Table 5.

Awareness

The extent of the awareness of the respondents is inferred through the response to all the 20 dimensions of OERs used in the study (see Table 5). The data presented in the Table reveals that the awareness among the respondents regarding OERs is considerably high.

Content

The respondents' perceptions related to content are covered by serial numbers 1 – 5 in the Table 5. With reference to the OERs content coverage, 49.52% respondents feel that it is not adequate. Further, 25.72% of the respondents think that the quality of OERs content is questionable. Large number of respondents (83.81%) feels that OERs content needs localization. About one-fourth of the respondents feel that OERs content is not intellectually challenging. Further, almost all the respondents (94.29%) think that OERs content needs frequent updating.

Development of OERs

The perceptions of respondents related to the development of OERs is covered by the serial numbers 6 – 9 in the Table - 5. Almost all the respondents (94.29%) feel that OERs promote education and research as a public activity. Majority of the respondents (88.57%) are willing to get involved in the development of the OERs. However, 35.24% think that legal position of OERs is too complex to understand. It is observed that 81.90% of the respondents had difficulty in accessing some OERs web links.

Utility

The utility of OERs to learners and teachers is covered by the serial numbers 10 – 15 in the Table – 5. 95.23% respondents feel that OERs are of great help to learners and they also feel that 73.33 % of the learners are making use of OERs. A large number of respondents (82.86%) think that the OERs bring them international recognition. Further, 89.52% of the respondents opine that OERs will save teacher's time. More than half of the respondents prefer to use OERs in their teaching-learning process. Nearly two-thirds of the respondents (65.71%) feel that the users of OERs require higher computer skills.

Impact

The impact of OERs is assessed through the responses received to the serial numbers 16 – 20 in the Table 5. The impact factors cover from both institutional point of view and the developing countries point of view. It is observed from the table that 94.28% of the respondents feel that through OERs, they will have access to quality educational content and 81.91% feel that adoption of OERs content will improve the image of the institutions. However, 83.81% expressed the view that OERs contribution in an institution depends on the philosophy and thrust given to OERs by the top management. As many as 81.90% of the respondents think that OERs will reduce remarkably the cost of education which is of utmost importance to educational institutions in the developing and least developed countries. Majority of the respondents (69.52%) think that OERs will play a greater role in promoting collaborations and consortia in the field of education.

Table 5
Perceptions of Distance teachers regarding Open Distance Resources

N = 105

S.No	Statements	SA		A		U		D		SD	
		Fq	%	Fq	%	Fq	%	Fq	%	Fq	%
1	OERs are not intellectually challenging	6	5.71	19	18.10	28	26.67	38	36.19	14	13.33
2	The quality of OERs is questionable	7	6.67	20	19.05	13	12.38	39	37.14	26	24.76
3	The OERs content needs localization	37	35.24	51	48.57	4	3.81	8	7.62	5	4.76
4	The coverage of OERs is not adequate	21	20.00	31	29.52	29	27.62	19	18.10	5	4.76
5	Content of OERs needs frequent updating	45	42.86	54	51.43	2	1.90	1	0.95	3	2.86
6	OERs promote education and research as a public activity	46	43.81	53	50.47	0		3	2.86	3	2.86
7	The legal position of OERs is complex to understand	12	11.43	25	23.81	34	32.38	23	21.90	11	10.47
8	I would prefer developing OERs	41	39.05	52	49.52	8	7.62	1	0.95	3	2.86
9	Some OERs web links are not accessible	27	25.71	59	56.19	11	10.48	4	3.81	4	3.81
10	I would prefer OERs	40	3.81	56	53.33	2	1.90	3	2.86	4	3.81
11	OERs save the time of the teacher	44	41.90	50	47.62	2	1.90	6	5.71	3	2.86
12	OERs help a teacher to be recognized all over the world	41	39.05	46	43.81	13	12.38	1	0.95	4	3.81
13	OERs require higher skills on computer	30	28.57	39	37.14	20	19.05	13	12.38	3	2.86
14	Learners are using OERs	18	17.14	59	56.19	14	13.33	6	5.71	8	7.61
15	OERs are of great help to learners	35	33.33	65	61.90	2	1.90	0	0.00	3	2.86
16	OERs assist the developing countries to have quality material	52	49.52	47	44.76	1	0.95	3	2.86	2	1.90
17	OERs bring down the cost	35	33.33	51	48.58	10	9.52	5	4.76	4	3.81
18	OERs promote collaboration and consortia approach	39	37.14	34	32.38	23	21.90	4	3.81	5	4.76
19	Adoption of OERs content will improve the image of the institution	29	27.62	57	54.29	9	8.57	7	6.67	3	2.86
20	OER contribution in an institution depends upon the philosophy of top management	35	33.33	53	50.48	7	6.67	5	4.76	5	4.76

SA: Strongly Agree; A: Agree; U: Undecided; D: Disagree; SD: Strongly Disagree Fq: Frequency

CONCLUSION

It is evident from the study that the use of OERs by the distance teachers is remarkably high. Distance education institutions and the teaching community are not only making use of OERs but also contributing moderately towards their development. However, the development and use of OERs in India is still low when compared to the developed countries. The following measures are required to accelerate the movement of OERs in India and other developing countries:

- Development of user friendly systems and ensuring their implementation for quality assurance of courseware;
- Promotion of collaboration and use of consortium approach (Venkaiah: 2007) by the institutions for undertaking OERs Projects;
- Adoption of new and appropriate technologies to match the teaching-learning environment;
- Initiating steps to increase the awareness among the teachers, researchers and students about the availability and benefits of OERs in facilitating quality teaching-learning process.
- Defining clear and sound policies and guidelines for updating the content regularly; and
- Modularizing the content to meet localization needs.

These measures would go a long way in accelerating the OERs movement in India as well as in other developing countries. To initiate the movement in India, commitment on the part of the top management of distance education institutions to promote the development and use of OERs is essential. Let us hope that the OERs movement would catch up soon making the OERs indispensable tools in teaching-learning process in the developing countries as well.

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