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Open Educational Resources (OER) Issues and Problems Experienced by Social Scientists of Select Higher Educational Institutions in India

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Abstract:

Purpose: The purpose of the study is to explore the OER issues and problems experienced by social scientists at select higher educational institutions in India. In addition, the study also focuses on to create awareness about the concept and recommends some points to improve the OER practice.

Design/Methodology/Approach: The relevant data for the study was obtained through a well-structured questionnaire followed by personal interview wherever it was required. The well-structured & precise questionnaire was distributed to 300 social scientists (research scholars and faculty) of different higher educational institutes such as University of Delhi (DU), Mizoram University (MZU), Jawaharlal Nehru University (JNU) and Jamia Milia Islamia (JMI), selected through purposive random sampling. In addition to this, the bibliographical data were recorded in MS-Excel sheet 2007 for tabulation, analysis and interpretation purpose. Further, the chi square test was applied using the application software i.e. SPSS to draw the results.

Findings: The response rate was 86.67% in total that include 91.33% male and 82% female respondents. The respondents were found very enthusiastic in responding the questionnaire. Further, the study also finds that majority of the social scientist are aware about the concept open educational resources (OER).

Research Limitations/Implications: The scope of the study is confined to the social scientists (research scholars and faculty) of University of Delhi (DU), Mizoram University (MZU), Jawaharlal Nehru University (JNU) and Jamia Milia Islamia (JMI) and research results are limited to this only.

Originality/Value: The study stress upon the concept of open educational resources with regard to its issues and problems experienced by social scientists. The area of the study is still untouched here in India that makes the study unique in itself and opens the path to make the concept of OER to get the momentum here in India also as in developed countries the OER movement has already reached at advanced level.

Paper Type: Research Paper

1.   Introduction

Advancement of information and communication technology (ICT) has brought radical changes in teaching, learning and research. Academicians and researchers have changed their behavior of seeking, using and publishing the information. Now days, majority of the learners prefer e-content whether it is publishing or using the information. With the advancement of information and communication technology (ICT), higher education institutions around the world have been using web resources in digital format to develop and supplement teaching, learning and research for decades. Consequent upon the advancement of ICT, recently Open Educational Resources (OER) has gained momentum in education and research. Further, the concept has exemplified the dimensions of the researchers for potential and sustainable quality development with regard to demographic, economic, and geographic educational boundaries along with promoting life-long and personalized learning. The rapid growth of open educational resources (OERs) has opened new vistas and opportunities for sustainable teaching learning and research that requires serious concern from the academic community to make use and practice of OER (Kumar, 2017; Kumar, 2018; Kumar and Singh, 2019).

2.   Open Educational Resources (OER)

OER is a relatively new concept used pragmatically. The use of OER could be visualized as a part of a larger trend towards openness in higher education including more well-known and established movements such as Open Source Software (OSS) and Open Access (OA) (Hylen, nd; Kumar and Singh, 2019). First, the Open Educational Resources (OER) notion was conceived and discussed in international conference hosted by UNESCO in 2000 and was promoted in the context of providing free access to educational resources globally (OECD, 2007). Still now, the term OER is abstained from any authoritatively accredited definition which however, is used for digitized materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research in a fairly (Kumar and Singh, 2019).

In other words, Open Educational Resources (OER) adds substantially for teaching and learning materials in educational domain and as it is free, the learners, educators and the researchers come across with vast array of e-resources which however, requires to be used under certain legal frames (Kumar, 2017; Kumar, 2018, Kumar and Singh, 2019).

3.   Previous Studies on Open Educational Resources (OER)

Numerous studies have been conducted on open educational resources (OER) by the scholars but the area is still open and needs more research to make the concept to reach academicians. For instance, *Angel, Hartwell, and Hemingway (2011)* review the OER literature with special reference to public health with the key concepts as quality, ethics and values, rewards, risks and practical aspects, such as technological

developments. *Bossu and Tynan (2011)* advocate that open educational resources (OERs) have the potential, among other things, to further incorporate web 2.0 applications in learning environments and to bridge the gap between non-formal, informal and formal education. *Valentino (2015)* discusses about the concept of Open Educational Resources (OERs) and finds in his study that the donors, internal and external to the library and to the university, have shown an interest in funding projects that reduce textbook costs for students. *Velek and Rubio (2013)* compare two ways of the Travel Well criteria for learning materials and the Scientix Translation on demand service, to stimulate sharing and exchange of online educational resources across different languages and educational settings, the. *Das (2011)* discusses about the open educational resources in general followed by its emergence and development in Indian scenario. Further, the author also illustrates the role of libraries to access open educational resources (OER). *Kumar (2017)* in his paper discuss about the OER and says that ICT developments have made the OER concept possible. The author discusses about the basics of open educational resources (OER), its meaning, advantages & barriers and some of the initiatives taken in India. In addition to this, some points as recommendations have been made to improve the practice of OER in India. *Kumar (2018)* discusses that the concept open access is gaining the momentum in education across the globe that has given rise to the concept open educational resources (OER) and it is whole heartedly welcomed by the scholars and academicians everywhere in the world. In his paper, the author discusses about the concept of open educational resources (OER) and its benefits with the aim of to create awareness among Social Scientist about OER available in Social Science discipline. *Kumar and Singh (2019)* conducted a study on OER practice at University of Delhi and find that majority of the users are in favor of OER publishing and its use. *Kumar, Buragohain, and Deka (2019)* in their paper discuss about the OER concept with the aim to popularize the concept and make it practiced among scholars/academicians. And further, the author(s) also discuss recommendations at the end to improve OER practice. *Hatzipanagos and Gregson (2015)* explore the role of Open Access (in licensing, publishing and sharing research data) and Open Educational Resources within Distance Education, with a focus on the context of the University of London International Programmes. The authors in their study have also highlighted some opportunities and the findings resulted into some clear recommendations that emerged both for practitioners and for students in this area.

4. Objectives of the Study

In order to accomplish the study, the following research objectives were set as to:

a) Know the use and awareness about Open Educational Resources (OER) among the social scientists;

b) Explore the opinion with regard to several issues involved in publishing and use of OER;

c) Find out the problems faced by the social scientists with regard to the use and practice of OER; and

d) Suggest some ways to make the open educational resources (OER) accessible and more useful for social scientists.

5. Research Methodology & Scope

To know the opinion and attitude of social scientists with regard to open educational resources (OER), a survey, that include research scholars and faculty, was conducted with the help of a well-structured questionnaire followed by the interview. A total no. of 300 social scientists, that include 150 male and 150 female, were selected randomly and distributed a well-structured and precise questionnaire. Out of 300, total 260 (137 male and 123 female) filled in questionnaires were received back and the opinions expressed by them are clubbed in the analysis. It is observed that most of the respondents attended almost all the questions of questionnaire. Overall it may be remarked that the response to the questionnaire was very good. The responses received from the questionnaires were helpful in drawing conclusions. Then after, the data collected through survey was entered in MS-Excel 2007 sheet to draw the diagrams/graphs wherever was possible, again with the help of application software i.e. SPSS, the chi square test has been applied wherever it was required, to draw the results.

The scope of the study is confined to the social scientists (research scholars and faculty members) of University of Delhi (DU), Mizoram University (MZU), Jawaharlal Nehru University (JNU) and Jamia Milia Islamia (JMI).

6. Data Analysis and Interpretation

This particular section deals with the data collected from respondents, here the opinion expressed by respondent for each question is analyzed to draw useful conclusion/results.

Table 1: Response (Gender-wise and in Total)

	Questionnaires	Male	Female
Questionnaires Distributed	300 (100)	150 (100)	150 (100)
Questionnaires Received	260 (86.67)	137 (91.33)	123 (82)

Note: Values in parentheses indicate percentage.

Table 1 depicts that out of 300 questionnaires circulated among the social scientists, 260 (86.67%) filled in questionnaires were collected back from the respondents. Further, the table reflects that response rate of male and female is 91.33% and 82% respectively that shows that both male and female showed great enthusiasm in responding during the study.

Table 2: Awareness about Open Educational Resources (OER)

	Male (N=137)	Female (N=123)	Total (N=260)
Yes	90 (65.69)	71 (57.72)	161 (61.92)
No	47 (34.31)	52 (42.27)	99 (38.08)
Total	137 (100)	123 (100)	260 (100)
α=0.05, Degree of freedom=1, p-value=0.186383226, χ^2-calculated value=1.745977425, χ^2-tabulated value=3.841458821, Significant= 0.1			

Note: Values in parentheses indicate percentage.

It is noticed from table 2, that majority of the respondents i.e. 65.69% (57.72% male and 61.92% female) are well aware of open educational resources (OER) in their respective discipline. Response is very encouraging as majority of the respondents i.e. 65.69% are well aware of OER. Statistical application reveals that there is significant difference in responses of the male and female respondents regarding awareness about open educational resources.

Table 3: Reasons of Unawareness about Open Educational Resources (OER)

Reasons	Male (N= 47)	Female (N= 52)	Total (N= 99)
Lack of ICT knowledge	11 (23.40)	13 (25)	24 (24.24)
Don't know how to access OER	17 (36.17)	21 (40.38)	38 (38.38)
Not interested at all	8 (17.02)	9 (17.31)	17 (17.17)
I prefer print material	11 (23.40)	9 (17.31)	20 (20.20)
Any other (Pl. specify)	-	-	-
Total	47 (100)	52 (100)	99 (100)
α=0.05, Degree of freedom=4, p-value=0.963558373, χ^2-calculated value=0.595536646, χ^2-tabulated value=9.487729037, Significant=No			

Note: Values in parentheses indicate percentage

Table 3 presents the fact that majority of the respondents i.e. 38.38% (36.17% male and 40.38% female) don't know how to access OER followed by lack of ICT knowledge and prefer print material with 24.24% (23.40% male and 25% female) and 20.20% (23.40% male and 17.31% female) respectively. Statistical application reveals that there is no significant difference in the response of male and female as the p value is >0.1 and 0.5.

Table 4: Involvement in any open educational resource (OER) activities

(N=260)	Yes, to a great extent (1)	Upto Satisfactory Extent (2)	Upto Some Extent (3)	Depends (4)	Not at all 5
The use of open educational content	123 (47.31)	33 (12.69)	47 (18.08)	39 (15)	18 (6.92)
The production of open educational content	43 (16.54)	31 (11.92)	103 (39.62)	22 (8.46)	61 (23.46)
The use of OSS	117 (45)	29 (11.15)	31 (11.92)	11 (4.23)	72 (27.69)
The production of OSS	-	01 (0.38)	03 (1.15)	17 (6.54)	239 (91.92)
Any other (Pl. specify)	-	-	-	-	-

Note: Values in parentheses indicate percentage.

Table 4 reveals that majority of the respondents have been involved in the use of open educational content (47.1%) followed by the use of OSS (45%). Also reveals that majority of the respondents responded that up to some extent (39.62%) to the production of open educational content and not at all (91.92%) in the production of OSS.

Table 5: Opinion towards open educational resource (OER)

(N=260)	Yes	No	Not Sure
Please mention if you have ever submitted teaching and learning resources for publication as Open Educational Resources (OER)	177 (68.08)	39 (15)	44 (16.92)
Please mention if you are planning to submit teaching and learning resources for publication as Open Educational Resources (OER) in future	201 (77.31)	31 (11.92)	28 (10.77)
Please mention if you have ever used Open Educational Resources (OER) from other academics in your teaching and research	217 (83.46)	31 (11.92)	12 (4.62)
Please mention if you are Planning to use Open Educational Resources (OER) from other academics in your teaching in the future	169 (65)	63 (24.23)	28 (10.77)

Note: Values in parentheses indicate percentage.

Table 5 depicts that (i) majority of the respondents i.e. 68.08% responded that they have submitted their teaching and learning resources for publication as OER followed by who responded 'Not Sure' and 'No' with 16.92% and 15% respectively; (ii) 77.31% responded that they are planning to submit their teaching and learning resources for publication as OER followed by who responded 'No' and 'Not Sure' and with 11.92% and 10.77% respectively; (iii) 83.46% responded that they use OER from other academics in teaching and research followed by who responded 'No' and 'Not Sure' and with 11.92% and 4.62% respectively; (iv) 65% responded that they are planning to use OER from other academics in teaching and research followed by who responded 'No' and 'Not Sure' and with 24.23% and 10.77% respectively.

Table 6: Support from Management/Authority for Open Educational Resources (OER) Activities

(N=260)	Yes, to a great extent (1)	Upto Satisfactory Extent (2)	Upto Some Extent (3)	Depends (4)	Not at all (5)
The use of open educational content	23 (8.85)	33 (12.69)	123 (47.31)	47 (18.08)	34 (13.08)
The production of open educational content	-	17 (6.54)	37 (14.23)	199 (76.54)	07 (2.69)
The use of OSS	11 (4.23)	31 (11.92)	29 (11.15)	117 (45)	72 (27.69)

The production of OSS	-	09 (3.46)	17 (6.54)	217 (83.46)	17 (6.54)
Any other (Pl. sp.)	-	-	-	-	-

Note: Values in parentheses indicate percentage.

Table 6 reveals that majority of the respondents responded that upto some extent (47.31%) supported by management/authority while using open educational content. Also reveals that majority of the respondents responded that they are depended in the production of open educational content (76.54%), using of OSS (45%) and in the production of OSS (83.46%).

Table 7: Co-operation with people from other educational institutions for producing and exchanging open education resources

	No. of Response (N=260)		
	Male (N=137)	Female (N=123)	Total
Yes, in the same region/state	51 (37.22)	39 (31.71)	90 (34.62)
Yes, in other part of the country	77 (56.20)	81 (65.85)	158 (60.77)
No	09 (6.57)	03 (2.44)	12 (4.62)
Any other (Pl. specify)	-	-	-
Total	137 (100)	123 (100)	260 (100)
α=0.05, Degree of freedom=3, p-value=0.26593673, χ^2-calculated value=3.958898131, χ^2-tabulated value=7.814727903, Significant= 0.5			

Note: Values in parentheses indicate percentage.

It is represented in table 7 that majority of the respondents i.e. 60.77% (56.20% male and 65.85% female) are ready to cooperate with the people of other educational institutions for producing and exchanging OER in other part of the country followed by 34.62% (37.22% male and 31.71% female) within the same region/state. And further, it can be observed from the table that very less no. of respondents i.e. 4.62% (6.57% male and 2.44% female) only are not in favour of cooperation with others. Statistical application reveals that there is significant difference in responses of the male and female respondents at 0.5 regarding co-operation with people from other educational institutions for producing and exchanging open education resources.

Table 8: Preferred type of Material to Publish or Use OER

	Publishing (N=260)		Using (N=260)	
	Yes	No	Yes	No
Lecture Notes	181 (69.62)	79 (30.38)	191 (73.46)	69 (26.54)
Recorded Lectures	201 (77.33)	59 (22.69)	169 (65)	91 (35)
Podcasts (Other than lectures)	169 (65)	91 (35)	173 (66.54)	87 (33.46)
Interactive learning objects	189 (72.69)	71 (27.31)	219 (84.23)	41 (15.77)

PowerPoint slides	207 (79.62)	53 (20.38)	191 (73.46)	69 (26.54)
Module handbooks	211 (81.15)	49 (18.85)	231 (88.85)	29 (11.15)
Assessment Questions (formative)	-	-	-	-
Assessment Questions (summative)	-	-	-	-
Reading lists	123 (47.31)	137 (52.69)	183 (70.38)	77 (29.62)
Timetables	37 (14.23)	223 (85.77)	21 (8.08)	239 (91.92)
Images	19 (7.31)	241 (92.69)	211 (81.15)	49 (18.85)
Animations	110 (42.31)	150 (57.69)	141 (54.23)	119 (45.77)
Video	181 (69.62)	79 (30.38)	203 (78.08)	57 (21.92)
Scholarly journals/articles	199 (76.54)	61 (23.46)	229 (88.08)	31 (11.92)
Textbooks	171 (65.77)	89 (34.23)	231 (88.85)	29 (11.15)
Tutorials	161 (61.92)	99 (38.08)	207 (79.62)	53 (20.38)
Quiz	59 (22.69)	201 (77.31)	141 (54.23)	119 (45.77)
Software(s)	17 (6.54)	243 (93.46)	179 (45.77)	81 (31.15)
Any other (Pl. specify)	-	-	-	-

Note: Values in parentheses indicate percentage.

Table 8 reveals the fact that (i) preferred OER publishing formats for majority of the respondents i.e. 81.15%, 79.62%, 77.31%, and 76.54% are module handbooks, powerpoint slides, recorded lectures, scholarly journals/articles and interactive learning objectives and the less preferred formats i.e. software(s) with 6.54% followed by images with 7.31%, timetables with 14.23% and quiz with 22.69% respectively. (ii) preferred OER formats for use by majority of the respondents are textbooks & module handbooks with 88.85% each, scholarly journals/articles with 88.08%, and interactive learning objects with 84.23%, and the less preferred formats i.e. timetables with 8.08% followed by software(s) with 45.77%, quiz & animations with 54.23% respectively.

Table 9: Opinion regarding to Share Teaching and Learning Materials

	No. of Response		Total
	Male (N=137)	Female (N=123)	(N=260)
In my own institution / organization / university	41 (29.93)	33 (26.83)	74 (28.46)
In my country only	22 (16.06)	19 (15.45)	41 (15.77)
In other repositories like OER commons, OpenCourseWare Consortium	13 (9.49)	15 (12.20)	28 (10.77)
Globally	61 (44.53)	56 (45.53)	117 (45)
Any other (Pl. specify)	-	-	-

	137 (100)	123 (100)	260 (100)
Total			

α=0.05, Degree of freedom=4, p-value=0.952671024, χ^2-calculated value=0.689061132, χ^2-tabulated value=9.487729037, Significant = No

Note: Values in parentheses indicate percentage.

It is depicted from table 9 that majority of the respondents i.e. 45% (44.53% male and 45.53% female) are in favor to share the teaching and learning resources globally followed by within institution/organization/university with 28.46% (29.93% male and 26.83% female) and within the country with 15.77% (16.06% male and 15.45% female). The chi square test reveals that there is no significant difference as the p value is >0.5 of the male and female respondents regarding share teaching and learning materials to others.

Table 10: Major Concern(s) before Contributing OER Content

	N=260		
	V. Imp.	**Imp.**	**Doesn't Matter**
Be acknowledged as the creator of the resource when used	231 (88.85)	29 (11.15)	-
Be acknowledge as the creator of the resource if it is adapted or change by someone else	252 (96.92)	08 (3.08)	-
Know who uses the resources	201 (77.31)	39 (15)	20 (7.69)
Know how the resources are used	47 (18.08)	171 (65.77)	42 (16.15)
Know the changes made to the resource	72 (27.69)	143 (55)	45 (17.31)
Be personally/financially recompensed for the use of the resource	12 (4.62)	67 (25.77)	181 (69.62)
Be personally rewarded through your work plan, promotion, awards or other mechanisms for the use of the resource	197 (75.77)	34 (13.08)	29 (11.15)
Have your group/department/institution financially recompensed for the use of the resource	27 (10.38)	179 (68.85)	54 (20.77)
Have a quality review of the resource	183 (70.38)	40 (15.38)	37 (14.23)

Note: Values in parentheses indicate percentage.

Table 10 highlights that the major concern for majority of the respondents i.e. 96.92% is to be acknowledged as the creator of the resource if adapted or change by someone else followed by to be acknowledged as the creator of the resource when used and to know who uses the resources with 88.85% and 77.31% respectively. And further, it

can be seen from the table that very less no. of respondents i.e. 4.62% only are concerned about the financial issues.

Table 11: Benefit(s)/Advantage(s) in Publishing and Using OER

	Publishing		Using		Chi Square	
	Yes	**No**	**Yes**	**No**	χ	p
Enhance University reputation	239 (91.92)	21 (8.08)	171 (65.77)	89 (34.23)	2.84213673 520892E-13	0.99999957 4634223
Enhance personal reputation	233 (89.62)	27 (10.38)	149 (57.31)	111 (42.69)	7.25765677 901434E-17	0.99999999 3202671
Enhance the users knowledge of a subject/Subject	213 (81.92)	47 (18.08)	201 (77.31)	59 (22.69)	0.19146396 4190065	0.66170095 5784167
Enhance the users knowledge of a course	-	-	-	-	0	0
Support students without formal access to Higher Education	201 (77.31)	59 (22.69)	211 (81.15)	49 (18.85)	0.27967996 0607411	0.59691105 8607382
Share best practices	202 (77.69)	58 (22.31)	169 (65)	91 (35)	0.00137127 316051787	0.97046052 2960323
Reduce development costs / time	191 (73.46)	69 (26.54)	137 (52.69)	123 (47.31)	9.25235120 72773E-07	0.99923252 1798171
Enhance current practice	170 (65.38)	90 (34.62)	181 (69.62)	79 (30.38)	0.30305429 1791319	0.58197395 9683556
Support developing nations	139 (53.46)	121 (46.54)	211 (81.15)	49 (18.85)	1.68571081 787684E-11	0.99999672 4092741
Gaining access to the best possible resources	123 (47.31)	137 (52.69)	141 (54.23)	119 (45.77)	0.11436099 2606514	0.73523280 5017728
Bringing down costs for learners	205 (78.85)	55 (21.15)	198 (76.15)	62 (23.85)	0.46227051 8078942	0.49656475 0988225
Outreach to disadvantages communities	209 (80.38)	51 (19.62)	208 (80)	52 (20)	0.91238479 535714	0.33948245 3175172

						Chi Square	
Becoming independent from publishers	181 (69.62)	79 (30.38)	158 (60.77)	102 (39.23)	0.03423109 78520816	0.85321610 9597017	
Building sustainable partnerships	213 (81.92)	47 (18.08)	121 (46.54)	139 (53.46)	3.86090165 321597E-17	0.99999999 5042252	
Creating more flexible materials	167 (64.23)	93 (35.77)	151 (58.08)	109 (41.92)	0.14998944 6841508	0.69854544 3481981	
Any other (Pl. specify)	-	-	-	-			

Note: Values in parentheses indicate percentage.

Table 11 shows that (i) majority of the respondents i.e. 91.92% feel that the major advantage of publishing OER is that it enhance university/institute reputation followed by enhance personal reputation with 89.62% and enhance the knowledge of the subject & building sustainable partnerships with 81.92% each; (ii) majority of the respondents i.e. 81.15% feel that major advantage of using OER is that it support developing nations and support students without formal access to higher education followed by outreach to disadvantaged communities with 80%, enhance the subject knowledge with 77.31% and bringing down costs for learners with 76.15% respectively. With the help of SPSS, Chi Square test was performed to see the comparison between Publishing and Using of OER and the result showed that the p value for Support students without formal access to Higher Education, Enhance current practice, Bringing down costs for learners, Outreach to disadvantages communities are significant at =0.5 level.

Table 12: Opinion about Open Educational Resources (OER)

	N=260					Chi Square	
	SA	A	DA	SDA	Neutral	χ	p
OER only help other institutions/academics to copy our best ideas	4 (1.54)	39 (15)	163 (62.69)	21 (8.08)	33 (12.69)	309.92 307692 3077	7.835675 6316879 E-66
OER can help in building fruitful partnerships with colleagues and institutions worldwide	65 (25)	155 (59.62)	08 (3.08)	11 (4.23)	21 (8.08)	295.30 769230 7692	1.114103 4879201 E-62
OER available on the University	179 (68.85)	39 (15)	5 (1.92)	6 (2.31)	31 (11.92)	405.07 692307 6923	2.224898 83293305

repository will help in enhancing the reputation of the University and attracting better students							E-86
OER available on the University repository will help in enhancing the reputation of the University, attracting better academic staff	8 (3.08)	17 (6.54)	29 (11.15)	199 (76.54)	7 (2.69)	525.461538461538	2.08275170359418 E-112
Publishing OER on the University repository will enhance your promotion prospects	8 (3.08)	11 (4.23)	181 (69.62)	21 (8.08)	39 (15)	411.307692307692	2.52196484696062 E-63
Publishing OER could damage the University reputation (via association with inaccurate or poor quality materials)?	8 (3.08)	8 (3.08)	29 (11.15)	201 (77.31)	14 (5.38)	539.346153846154	2.56326484696062 E-60
OER is a useful way of developing new courses useful for academicians	8 (3.08)	171 (65.77)	41 (15.77)	29 (11.15)	11 (4.23)	354.384615384615	2.59116484696062 E-66
Exploring the available OER worldwide will enhance teaching and	159 (61.15)	61 (23.46)	8 (3.08)	9 (3.46)	23 (8.85)	310.692307692308	2.53186484696062 E-65

	SA	A	DA	SDA		χ	p
raise standards across the University/instit ution							
Publishing OER may stop the students attending lectures/class	8 (3.08)	19 (7.31)	53 (20.38)	149 (57.31)	31 (11.92)	247.61 538461 5385	2.561764 84696062 E-61
Publishing and make use of OER is an easy process	9 (3.46)	23 (8.85)	43 (16.54)	163 (62.69)	22 (8.46)	307.53 846153 8462	2.541864 84696062 E-68

Note: SA-Strongly Agree; A-Agree; DA- Disagree; SDA- Strongly Disagree, Values in parentheses indicate percentage.

Table 12 reveals that majority of the respondents strongly agree that OER available on the University repository will help in enhancing the reputation of the University and attracting better students (68.85%) and exploring the available OER worldwide will enhance teaching and raise standards across the University/institution (61.15%). The majority of the respondents agree that OER can help in building fruitful partnerships with colleagues and institutions worldwide (59.62%) and OER is a useful way of developing new courses useful for academicians (65.77%). The majority of the respondents disagree that OER only help other institutions/academics to copy our best ideas (62.69%) and publishing OER on the University repository will enhance your promotion prospects (69.62%). Also reveals that majority of the respondents are strongly disagree that OER available on the University repository will help in enhancing the reputation of the University, attracting better academic staff (76.54%), publishing OER could damage the University reputation (via association with inaccurate or poor quality materials)? (77.31%), publishing OER may stop the students attending lectures/class (57.31%) and publishing and make use of OER is an easy process (62.69%). To perceive the significant level of this table chi square test was administered and the result showed that the p value is > 0.1 and 0.5 which means it's not significant.

Table 13: barriers/problems in publishing and using Open Educational Resource (OER)

	Publishing		Using		Chi Square	
	Yes	No	Yes	No	χ	p
Awareness of the university OER repository and other repositories	191 (73.46)	69 (26.54)	181 (69.62)	79 (30.38)	2.75718562 957714E-36	1

Fear over copyright infringement	151 (58.08)	109 (41.92)	131 (50.38)	129 (49.62)	0.07833501 30887963	0.7795665 58322009
Ownership and legal barriers (other than copyright)	119 (45.77)	141 (54.23)	101 (38.85)	159 (61.15)	0.11010404 629116	0.7400257 11682388
Your time	171 (65.77)	89 (34.23)	79 (30.38)	181 (69.62)	6.75272337 255144E-16	0.9999999 7926617
Scepticism over usefulness	-	-	-	-	-	-
Lack of reward and recognition	169 (65)	91 (35)	-	-	-	-
Possible negative impact on reputation	109 (41.92)	151 (58.08)	179 (68.85)	81 (31.15)	6.60295464 450695E-10	0.9999794 97386796
Lack of support	161 (61.92)	99 (38.08)	-	-	-	-
School / Institution Policy	-	-	-	-	-	-
Criticism from Colleagues	-	-	-	-	-	-
Criticism from Students	-	-	-	-	-	-
Impact on career progression	-	-	-	-	-	-
Relevancy of materials available	-	-	-	-	-	-
Lack of feedback from users	173 (66.54)	87 (33.46)	-	-	-	-
Lack of skills	203 (78.08)	57 (21.92)	161 (61.92)	99 (38.08)	0.00005839 9861820948 7	0.9939026 41308835
Lack of infrastructure	121 (46.54)	139 (53.46)	-	-	-	-
Lack of access to computers	-	-	-	-	-	-
Lack of interest in pedagogical	53 (20.38)	207 (79.62)	-	-	-	-

innovation among staff members						
No support from management level	143 (55)	117 (45)	-	-	-	-
Any other (Pl. specify)	-	-	-	-	-	-

Note: Values in parentheses indicate percentage.

Table 13 reveals that (i) majority of the respondents i.e. 78.08% feel that the major barrier/problem of publishing OER is lack of skills followed by lack of awareness of the university OER repository and other repository with 73.46% and lack of feedback from users; (ii) majority of the respondents i.e. 69.62% feel that major barrier/problem of using OER is lack of awareness of the university OER repository and other repository followed by possible negative impact on reputation with 68.85% and lack of skills with 61.92% respectively. To perceive the significant level of this table chi square test was administered and the result showed that the p value is > 0.1 and 0.5 which means there is no significance.

7. Major Findings of the Study

On the basis of the study conducted, the following major findings are drawn:

- It was found that majority of the respondents i.e. 65.69% (57.72% male and 61.92% female) are well aware of open educational resources (OER) in their respective discipline.

- It was found that majority of the respondents i.e. 38.38% (36.17% male and 40.38% female) don't know how to access OER followed by lack of ICT knowledge and prefer print material with 24.24% (23.40% male and 25% female) and 20.20% (23.40% male and 17.31% female) respectively.

- majority of the respondents i.e. 68.08% responded that they have submitted their teaching and learning resources for publication as OER followed by who responded 'Not Sure' and 'No' with 16.92% and 15% respectively;

- 77.31% of the social scientists responded that they are planning to submit their teaching and learning resources for publication as OER followed by who responded 'No' and 'Not Sure' and with 11.92% and 10.77% respectively;

- 83.46% responded that they use OER from other academics in teaching and research followed by who responded 'No' and 'Not Sure' and with 11.92% and 4.62% respectively;

- 65% responded that they are planning to use OER from other academics in teaching and research followed by who responded 'No' and 'Not Sure' and with 24.23% and 10.77% respectively;

- 60.77% respondents (56.20% male and 65.85% female) were found ready to cooperate with the people of other educational institutions for producing and exchanging OER in other part of the country followed by 34.62% (37.22% male

and 31.71% female) within the same region/state. And further, it can be observed from the table that very less no. of respondents i.e. 4.62% (6.57% male and 2.44% female) only are not in favour of cooperation with others.

- It is found that the preferred OER publishing formats for majority of the respondents i.e. 81.15%, 79.62%, 77.31%, and 76.54% are module handbooks, PowerPoint slides, recorded lectures, scholarly journals/articles and interactive learning objectives and the less preferred formats i.e. software(s) with 6.54% followed by images with 7.31%, timetables with 14.23% and quiz with 22.69% respectively.

- It is found that the preferred OER formats for use by majority of the respondents are textbooks & module handbooks with 88.85% each, scholarly journals/articles with 88.08%, and interactive learning objects with 84.23%, and the less preferred formats i.e. timetables with 8.08% followed by software(s) with 45.77%, quiz & animations with 54.23% respectively.

- 45% respondents (44.53% male and 45.53% female) were found in favour to share the teaching and learning resources globally followed by within institution / organization / university with 28.46% (29.93% male and 26.83% female) and within the country with 15.77% (16.06% male and 15.45% female).

- It is found that the major concern for majority of the respondents i.e. 96.92% is to be acknowledged as the creator of the resource if adapted or change by someone else followed by to be acknowledged as the creator of the resource when used and to know who uses the resources with 88.85% and 77.31% respectively. And further, it can be seen from the table that very less no. of respondents i.e. 4.62% only are concerned about the financial issues.

- Majority of the respondents i.e. 91.92% feel that the major advantage of publishing OER is that it enhance university/institute reputation followed by enhance personal reputation with 89.62% and enhance the knowledge of the subject & building sustainable partnerships with 81.92% each;

- Majority of the respondents i.e. 81.15% feel that major advantage of using OER is that it support developing nations and support students without formal access to higher education followed by outreach to disadvantaged communities with 80%, enhance the subject knowledge with 77.31% and bringing down costs for learners with 76.15% respectively.

- Majority of the respondents i.e. 78.08% feel that the major barrier/problem of publishing OER is lack of skills followed by lack of awareness of the university OER repository and other repository with 73.46% and lack of feedback from users;

- Majority of the respondents i.e. 69.62% feel that major barrier/problem of using OER is lack of awareness of the university OER repository and other repository followed by possible negative impact on reputation with 68.85% and lack of skills with 61.92% respectively.

8. Recommendations and Conclusion

On the basis of study, recommendations can be made such as (i) There is still a gap between academicians and the information resources, major steps need to be taken to create maximum awareness among the academic fraternity; (ii) Libraries and information professionals need to come forward to create awareness about OER in respective field; (iii) Libraries of the institute must and should conduct several training, orientation, workshops and awareness programmes for faculty and students frequently; (iv) Institutions should also take some of the major initiatives to encourage the OER use and their application in academic paradigm; (v) Institutional websites must and should create links to the various OER, so that the visitors can have direct link to the OER; (vi) Academic community must and should be encouraged by the institutional authority to use OER and publish their research openly; (vii) Colleagues must and should share their expertise and skills with each other; (viii) Govt. should support the use of OER through their policy-making role in higher education and Govt. should also consider adopting open licensing frameworks and open standards; (ix) Govt. must and should contribute to raising awareness of key OER issues and promote national ICT/connectivity strategies; (x) Govt. should support the sustainable development and sharing of quality learning materials; (xi) Higher education institutions should develop institutional strategies for the integration of OER with incentives to support investment in the development, acquisition and adaptation of high quality learning materials; (xii) HE institutions should recognize the important role of open educational resources within internal quality assurance process and further, these should consider creating flexible copyright policies and in addition to this, institutions should undertake institutional advocacy and capacity building with ensuring ICT access for staff and students; (xiii) Academicians should also consider publishing OER and assemble, adapt and contextualize existing OER; (iv) Academicians should develop the habit of working in teams and try to seek institutional support for OER skills development; (xv) Further, academicians should try to leverage networks and communities of practice and in addition to it, encouragement of students participation at maximum level is required; (xvi) Academicians should try to promote OER through publishing about OER and provide feedback about, and data on the use of, existing OER with continuous updating knowledge about IPR, copyright and privacy policies; (xvii) Academicians should accept OER as good practice in quality assurance and recognition; (xviii) Various agencies working in the discipline at national and international level must and should take certain initiatives to popularize the OER and further these agencies should coordinate and work as a link among the Govt., institutions, and OER etc. and (xix) NASSDOC should take a lead to apprise social science scholars at national level to popularize and optimal use of OER to support their teaching, research and other academic activities.

Conclusion

On the basis of above findings and suggestions/recommendations given, it can be concluded that there is still a lot of scope for improvement of practicing OER in India. Although, OER has already gained enough recognition and popularity across

the world but the developing countries like India and others are still lacking behind. So, there is a need to retrospect ourselves and try to improve and learn about OER to get maximum benefits of it, as information is considered as one of the important component of society.

Today's information society is witnessing the drastic changes in teaching and learning across the globe where the requirements and expectations of learners are more from educators. The technological advancements are responsible for this change and it has affected the librarianship also where changes have to be welcomed with both hands (Kumar, 2018). Now, in today's information society, in order to satisfy the information hunger, it is necessary to develop a system to ensure the quality information with speedy access having minimum cost or free of cost. In order to achieve such target, several concept or systems have evolved and OER revolution is one of them, accepted all over the world. Despite of gaining the popularity across the globe, developing countries like India and other are still lagging behind reason may be the awareness about it, copyright infringement etc. The need of the hour is to organize workshop, training, orientation, awareness programmes exclusively on OER so that academicians can be made aware and encouraged to use/develop OER in their discipline with the settlement of the issues of licensing and copyright. In short, there is a need to retrospect ourselves and try to improve and learn about OER to get maximum benefits of it, as information is considered as one of the important component of society and it has plenty of opportunities as far as the quality and economic context is concerned provide it used fairly.

References

- Angel, C., Hartwell, A., and Hemingway, A. (2011), "The emergence of public health open educational resources", *Health Education*, Vol. 111 No. 4, pp. 256-265

- Bossu, Carina and Tynan, Belinda (2011), "OERs: new media on the learning landscape", *On the Horizon*, Vol. 19 No. 4, pp. 259-267.

- Das, Anup Kumar (2011), "Emergence of open educational resources (OER) in India and its impact on lifelong learning", *Library Hi Tech News*, Vol. 28 No. 5, pp. 10-15, Retrieved Jan., 10, 2021 from doi: 10.1108/07419051111163848

- Hatzipanagos S and Gregson J (2015), "The Role of Open Access and Open Educational Resources: A Distance Learning Perspective", *The Electronic Journal of e-Learning,* Vol. 13 No. 2, pp. 97-105.

- Hylen, Jan. (nd) "Open Educational Resources: Opportunities and Challenges." Retrieved Jan., 10, 2021, from http://www.oecd.org/edu/ceri/37351085.pdf

- Kumar, Amit (2017), "Open Educational Resources (OER): Transforming the Learning Landscape in Digital Environment". In Kaul, H.K. and Kaul Sangeeta (Ed.), 20th National Convention on Knowledge, Library and Information Networking (NACLIN 2017), DELNET, New Delhi, 2017. Publisher: DELNET, New Delhi, pp. 187-198.

- Kumar, Amit (2018), "Social Media and Social Media Analytics (SMA): Connection with Libraries". In Rai, Priya and Akash Singh (ed.), International Seminar on Digital Transformation Strategies and Trends in E-Learning: Privacy, Preservation and Policy (ICDT-2018), National Law University, Delhi, 2018. Publisher: Segment Books, Delhi, pp. 167-174.

- Kumar, Amit (2018), "Creating Awareness about Open Educational Resources (OER) in Social Science Discipline". In Ravi, S and Dhanavandan, S (Ed.), National Seminar on Innovative Librarianship Challenges and Opportunities (NSIL-2018), Central University of Tamilnadu, Tamilnadu, 2018. Publisher: DLIS and Central Library, CUTN, Thiruvarur, pp. 395-406.

- Kumar, Amit; Buragohain, Dibanjyoti and Deka, Manashjyoti. "Open Educational Resources (OER) Issues and Recommendations" In Bridging Educational Divides: OER and MOOCs. Priya Rai, Akash Singh and Samar Iqbal Bakshi (eds.). 2019. pg.90-98. National Law University Delhi. ISBN – 978-92-84272-25-8.

- Kumar, Amit and Singh, Monika. (2019). "Exploring the Use and Practice of Open Educational Resources (OERs) in Social Science Discipline with Special Reference to University of Delhi, Delhi", *Library Philosophy and Practice.* pp. 1-21. ISSN - 1606-7509. Peer Reviewed Journal.

- OECD. (2007), "Giving Knowledge For Free: The Emergence of Open Educational Resources", Available at http://www.oecd.org/edu/ceri/38654317.pdf (Accessed Dec., 26, 2020)

- Valentino, Maura L. (2015), "Donor funded Open Educational Resources: making the case", *The Bottom Line: Managing library finances*, Vol. 28 No. 4, pp. 112-118, Retrieved December 5, 2020, from doi: 10.1108/BL-07-2015-0016

- Velek, Premysl, & Rubio, Victor J. Perez. (2013), "Sharing Open Educational Resources in Multilanguage Repositories - the Learning Resource Exchange and Scientix", *Learning Innovations and Quality–The Future of Digital Resources,* pp. 43-51. Retrieved December 5, 2020 from <http://www.scientix.eu/c/document_library/get_file?uuid=51dd8a15-6ce0-4193-9eb0-785592879f08&groupId=10137>