

A STUDY ON OPEN EDUCATIONAL RESOURCES IN EDUCATION DISCIPLINE FROM INDIAN ONLINE LEARNING REPOSITORIES

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ABSTRACT

Open access has gained a huge popularity in the forms of open access journals and open access repositories due to the advent of Internet. In the arena of open world, a new term evolved i.e. Open Educational Resources (OER) that can be accessed from anywhere at any time. In it any person may deposit, search and retrieve digital content from anytime anywhere in the world. This paper tries to find out the present scenario of open educational resources in Education discipline available in online learning repositories of MHRD in terms of their content type, number, topic, language, etc. Following these objectives, researcher found out seven online learning repositories and found that NDLI possesses a large number of OERs in Education discipline among different digital learning sources. PDF format is available in almost all of OERs. It is found that total 106 modules in Education discipline have been retrieved in ePGpathsala and in it total eight papers in Education Discipline have been sub divided into different modules. NPTEL is an online learning platform of 600 web and video courses in various branches of engineering and technology both UG and PG level. 3948 total number of documents have been found as OERs in Vidyamitra . SWAYAM platform has many OERs available as study materials. SwayamPrabha is free DTH channel for imparting Education for all. It may be said that OERs may be regarded as supplement to physical resources.

Keywords: Open Educational Resources (OERs), Learning Repository, Education, SWAYAM, PG-Pathsala, Vidyamitra, National Digital Library of India (NDLI), eGyankosh, NPTEL, Swayam Prabha.

Introduction

Modern age is the age of Internet where people are entering into the open world i.e. anyone can access open digital sources from anywhere through Internet. Generally, these open digital resources are free i.e. everything available must be accessed free of cost. In these Open Digital sources, there are many resources, which have educational value, are popularly termed as Open Educational Resources (OERs). There are a good number of OERs available on the Internet in India almost all disciplines including Education discipline. These OERs are available in the public domain or have been released under CC license that allows sharing, accessing, repurposing.

Several academic institutions in India have already taken initiative to create repositories where OERs may be deposited. Several efforts have been taken for creating OERs like seminars, workshops in HRDC and college level. Libraries also have organized orientation programme for creating awareness regarding OERs among students. The major obstacle to the acceptance of OERs is digital divide and Indians are more inclined to print resources. In this respect National Mission on Education through Information and Communication and Technology (NMEICT) may be remembered to provide quality learning content by utilizing ICT oriented Higher Education in India.

1. Literature Review

The following literatures have been found by the researcher while surveying the literature from the journal articles, books, conference proceedings, website concerned, etc.

Debnath in 2018 studied on the use of open learning resources run by research scholars of the University of North Bengal. For this study he used survey method and close ended questionnaire and showed that 54.54% research scholars are using open government learning resources to a limited extent whereas 21.21% research scholars are using open government learning resources to a large extent (Debnath,2018). Chakrabarti in his paper related with institutional repositories studied 75 websites of institutional repositories through content analysis in respect of subject, language, state, policies, etc., revealed that multidisciplinary subjects oriented repositories are available in large number and nearly all are available in English. It is also observed by him that a huge number of open educational resources have been found in these repositories. (Chakrabarti,2017). Thakran and Sharma in 2016 investigated the role of OERs in Indian higher education amidst lacking of trained faculty and geographical variation regarding accessing education. Both the authors gave a brief overview on initiatives of OER in India to overcome the barriers of educational

challenges faced in higher education They ended the paper with the inferences of the aforementioned initiatives for the advancement of OEP in India (Thakran & Sharma ,2016). Dutta in 2016 threw light on the possibilities and challenges in connection with OER in Indian higher education. In this respect the author enumerated some initiatives of Government of India like SHAKSHAT, NKN, EKLAVYA, NMEICT, NPTEL, OSCAR, E-grid etc. He found that due to poor academic and infrastructural facilities, it was not being possible for India to meet with global standard if not distributing quality learning material among higher educational institutions of India (Dutta, 2016). Raman and others in 2014 threw light on The VLAB OER Experience and The study was conducted on 131 engineering students based on ‘Roger’s theory of perceived attributes’. After analysis the major findings were i) students ‘performances were the same as in physical and virtual laboratory like OER. ii) They also remarked that policy makers in the field of education should be encouraged to apply OER to lessen digital divide of country like India (Raman et.al., 2014). Das in 2014 in his paper defined the term OER and international policy related to OER. He then emphasized Indian initiatives of the OER through the support of National Mission on Education through ICT (NME-ICT) (Das,2014). Sharma in 2013 highlighted some OER initiatives in India and he noted OERs initiatives like CSIR Explorations, Digital Library of India, Cultural Heritage Digital Library in Hindi, Kalasampada, INDEST Consortium, etc. He also mentioned CEC Learning Object Repository, NPTEL, Brihaspati, E-Grid, Ekalavya, etc (Sharma,2013). Khanna and Basak in 2013 studied on architecture framework of OER and they pointed out six dimensions of the OER architecture framework--pedagogical, technological, managerial, academic, financial, and ethical. They made proposal on OER Knowledge and Information Base, Information Management in an OER Framework, DES-OER Web Portal. Before making conclusion, they hoped that after successful implementation of the architecture in the distance education, accessibility of OERs would increase (Khanna & Basak 2013). Mulder, F. in 2013 studied on the logic of national policies and strategies for open educational resources. In this paper he observed a small number of countries which took initiative to set up a national OER. According to ‘‘Report to the Nation 2007’’ India was the pioneer to accept OER and hosted the National E-content and Curriculum Initiative. In this context, the author enumerated three liabilities of governments for education to encourage accessibility, quality, and efficiency (Mulder,2013). Bansal and others in 2013 observed current Initiatives and challenges to OERs in Indian Higher Education. They highlighted that in India OER movement was not up to the mark due to lack of qualified teachers, lack of suitable infrastructure of the universities and libraries, and the inadequate use of OER. They addressed the challenges of OER faced in India and suggested outcome to break the barrier (Bansal et. al. ,2013). Venkaiah in 2008 studied on Open Educational Resources in India in the light of attitudes and perceptions of Distance Teachers. He investigated the level of awareness of OER among faculties. According to him, the result showed that the use of OER by the distance faculties was considerably high and they also contributed OER side by side reasonably (Venkaiah 2008).

2. Significance of the study

In India, research in Education is dominated by survey research. Generally, these researches come out with a list of suggestions to be incorporated in developing education systems. Therefore, researcher wants to perform novel work in the field of Education by analyzing the collected data from online learning repositories to show how much OERs available in Education discipline in terms of number, languages, content type, etc. The result of this study will be beneficial for increasing awareness and usage of OERs in academia and academicians in Education discipline will come to know the present status of Education in these learning repositories and they will be interested to deposit more and more OERs in these repositories.

3. Objective of the study

The main objectives of the study is---

- To identify the existing Online Learning Repositories recommended by UGC/MHRD where open educational resources available in Education discipline.
- To analyze the generic and technical features of Open Educational Resources in terms of OERs’ number, language, content, organization, etc. available in Online Learning Repositories of MHRD.

4. Methodology and Database

During pandemic situation, the UGC has notified a list of ICT initiatives of UGC and MHRD using which the academic community can be benefitted as the country is in a lockdown due to the coronavirus outbreak. So, the researcher selects the sources of OER as per Guidelines of UGC and MHRD published in a letter. Researcher selected those repositories which have been notified by MHRD and UGC (UGC,2020). In this way Researcher selected seven online learning repositories. After that browsing these website of online learning repositories concerned, researcher collected data about them keeping in mind of objectives of this paper and then it was presented in tabular form for easy analysis. Besides these printed brochures of concerned repositories are another valuable source of information.

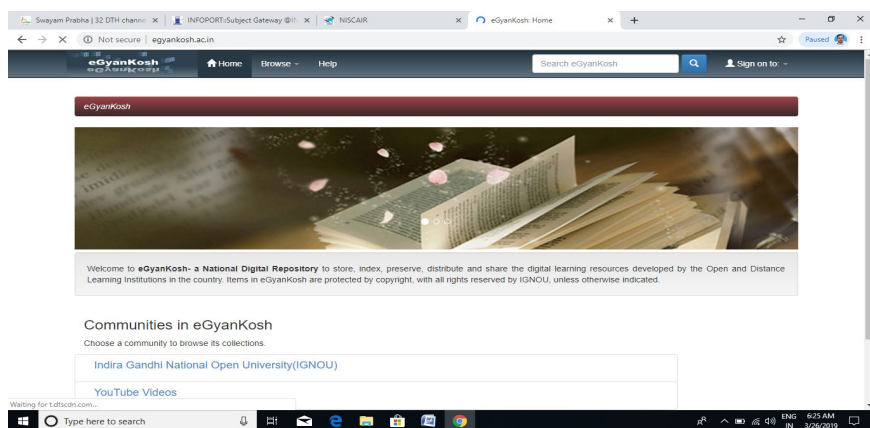
Content analysis and Case Study method has been followed. Data collected up to May 15, 2021 from respective website, and related literature have been consulted for making minute analysis.

5. Analysis and Interpretation of Results

For the purpose of analysis and according to the aforesaid objectives, the following tables and figures have been prepared for better interpretation

6.1 eGyankosh

It is an online learning repository of Indira Gandhi National Open University, New Delhi in which the learning resources available online may be stored and accessed and shared. Actually resources are available on those subjects which are taught by the distant university. All the resources have been protected by copyright act. eGyankosh is available on Google Play Store. The whole collections (Figure 1) of eGyankosh (eGyankosh,2021) is divided into five communities— 1. IGNOU FB Live Recorded Videos 2. IGNOU Self Learning Materials 3. IGNOU-SWAYAM Course Content 4. IGNOU You Tube Videos. Chakraborty and Ghosh in 2011 discussed on Open resources for higher education in India and they observed a few significant OER platforms like eGyankosh by Indira Gandhi National Open University, eGurukul by Indian Institute of Technology Kanpur, etc. (Chakraborty & Ghosh ,2011).



(Figure 1: Homepage of eGyankosh)
(Source: <http://egyankosh.ac.in>)

Table 1: Year wise Distribution of OERs in Education Discipline in eGyankosh

Year	Number of OERs in Education Discipline	Percentage
2020-2021	107	01.10
2010-2019	8970	94.54
2000-2009	08	00.09
Before 2009	404	04.27
Total	9489	100

(Source: <http://egyankosh.ac.in>)

From the above table 1, it is found that 9489 OERs in Education discipline are available in different format mainly PDF in Education discipline and most of the OERs have been found belong to 2010 and thereafter in eGyankosh. From the above table, it is clear to us that most of the items (94.54%) are available on and from 2010. Among them many OERs have been found on Educational philosophy followed by Ethics and rest of the OERs are available on Logic, Human Beings, Religion, Blended learning, Distance Education, etc. B.N. Koul (59 OERs) is the main contributor of OERs followed by C.B. Sharma (39 OERs), Avijit Pathak (38 OERs), Arbind Sinha (38 OERs). There are also other 17 contributors whose contributions are available in this repository.

6.2 e-PG Pathshala

It is an initiative of Ministry of Human Resource Development, Govt. of India, under National Mission on Education through ICT (NME-ICT). It is a collection (Figure 2) of readymade module based study materials in 70 subjects at PG level. But these e contents are available not only for PG but also useful for UG students (e-PG Pathshala,2021).

Eminent professors from our country wrote the content of the study materials which are easily available and easy to comprehend. These contents include E text, self-learning videos, learn more (References). Self-learning videos are also available in YouTube and videos can be sharable (e-PG Pathshala,2021).



(Figure 2: Homepage of e-PG Pathshala)
(Source: <http://epgp.inflibnet.ac.in>)

Table 2: Modules/OERs in Education discipline in e-PG Pathshala

Title of the Paper	Number of Modules/ OERs
Ancient Indian Philosophy	02
Economic, Political Perspective of Education	06
Education Management	43
Educational Administration	36
Inclusive Education	02
Psychology of Learning	01
School Curriculum Pedagogy	03
Teacher Education	13
Total	106

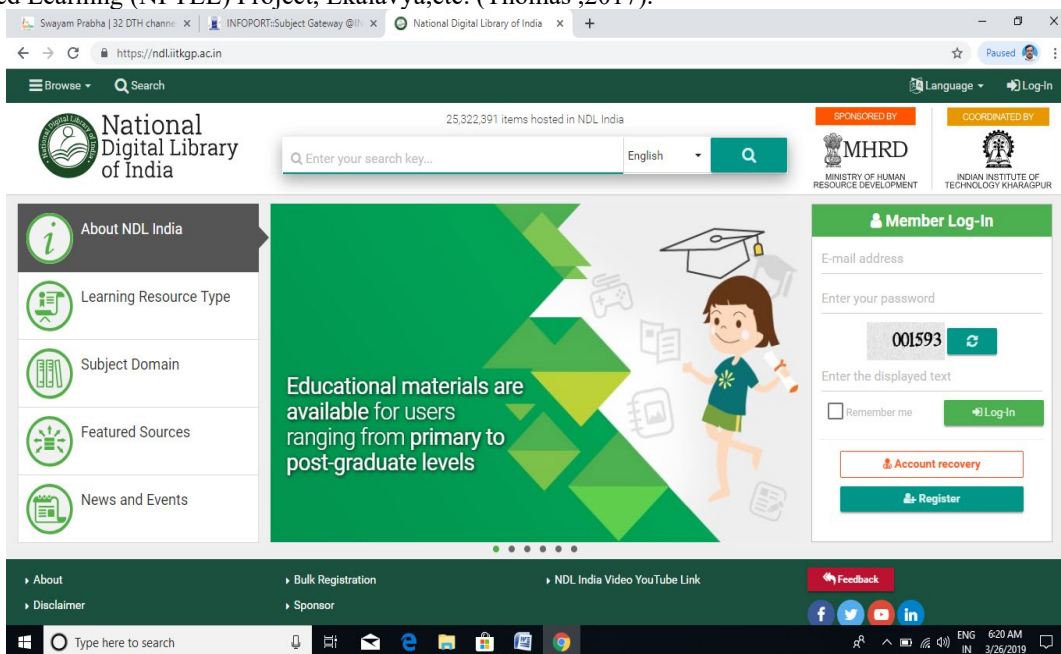
(Source: <http://epgp.inflibnet.ac.in>)

From the above table 2, it is found that total 106 modules in Education discipline have been retrieved while browsing the website concerned. Total eight papers have been sub divided into different modules and most of the modules or otherwise called OERs are available in PDF format or/and video lectures from eminent faculties of Education Department in India. It is also observed that most of the OERs have been found on Education management (43 OERs) followed by Educational Administration (36 OERs). These OERs are available in different format like E text, self-learning sharable videos, References.

6.3 National Digital Library of India (NDLI)

National Digital Library of India popularly known as NDL is vast collection of 60 types of OERs available online in one stop window (NDLI,2021). Now it is very popular as it is available in Mobile as App through Google Play Store on Android and also on iOS platforms. It is coordinated by IIT, Kharagpur and sponsored by MHRD, Govt. of India and in it learners find 15,00,000+ OERs as OERs from 1.5 lakh authors on different subject domain. It is also available in two vernacular languages like Hindi and Bengali. It is a single-window search facility for learners to retrieve the

right resources at right time in a right way. Thomas in 2017 studied on the use of OERs in Indian perspectives. In his paper he cited some Indian initiatives of OER like Digital Library of India, National Digital Library, National Knowledge Network, Shodhganga, Vidyanidhi, ShodhGangotri, EPrints@IISc, National Programme on Technology Enhanced Learning (NPTEL) Project, Ekalavya, etc. (Thomas, 2017).



(Figure 3: Homepage of NDLI)
(Source: <https://ndl.iitkgp.ac.in/>)

Table 3: Type of Learning Resources/OERs in Education discipline in NDLI

Type of OERs	Number
Article	2433956
Audiobook	13581
Book	308230
Book Review	6421
Booklet	1983
Case Study	10510
Conference Proceedings	4095
Journal	8037
Lesson Plan	4680
Magazine	3821
Newspaper	2716
Periodical	3114
Photograph	26668
Script	8032
Teacher's Manual	647
Other Different Types	638168
Total	3474659

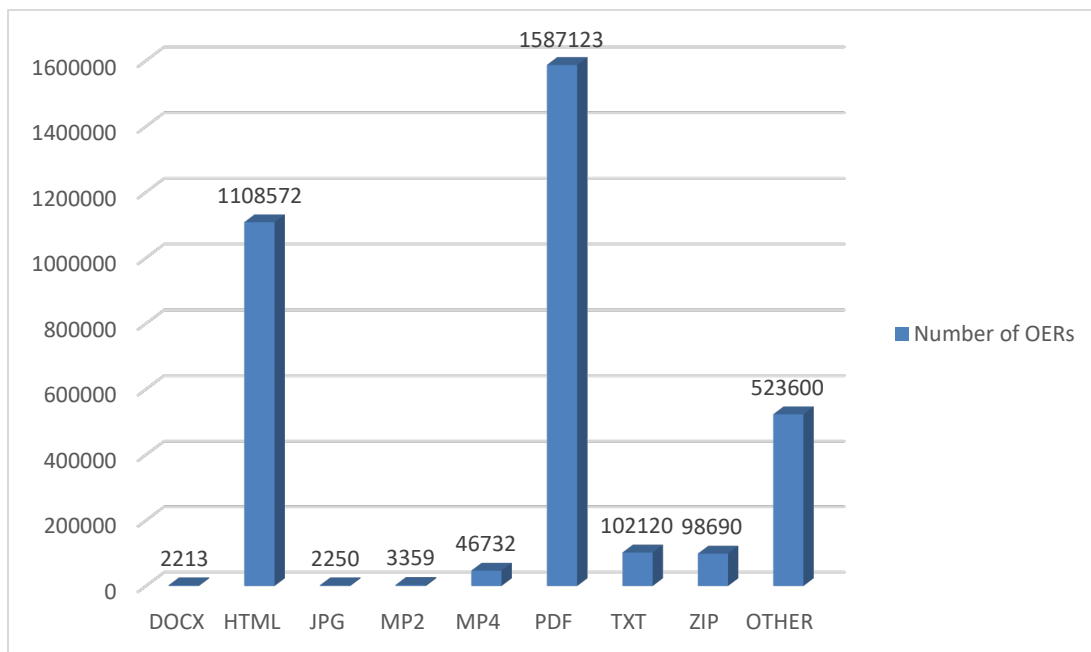
(Source: <https://ndl.iitkgp.ac.in/>)

The above table indicates that total 3445765 OERs in Education discipline are available in NDLI. It is also observed that 2433956 number of articles are available followed by book (308230 OERs) photograph (26668 OERs) and audiobook (13581 OERs). There is other type of OERs available in NDLI as for example, poster, almanac, album, audio lecture, appendix, annual report, biography, bibliography, broadcast, etc.

Table 4: File Format of OERs in Education discipline in NDLI

File Format	Number of OERs
DOCX	2213
HTML	1108572
JPG	2250
MP2	3359
MP4	46732
PDF	1587123
TXT	102120
ZIP	98690
OTHER	523600
Total	3474659

(Source: <https://ndl.iitkgp.ac.in/>)



(Figure 4: File Format of OERs in Education discipline in NDLI)

(Source: <https://ndl.iitkgp.ac.in/>)

The above table and figure indicates that total 1587123 OERs in Education discipline are available in PDF format followed by HTML (1108572 OERs), TXT (102120 OERs) and ZIP (98690 OERs). There is other type of formats of records available in NDLI such as ODG, JAR, MOBI, GIF, FLV, SWF, PPTX, MOV, etc.

Table 5: Access Restriction of OERs in Education discipline in NDLI

Nature of Access of OERs	Number of OERs	Percentage
Authorized	6139	0.17
Limited	757206	21.79
NDLI	21285	00.61
Open	1861553	53.58
Subscribed	826106	23.78
Unspecified	2370	0.07
Total	3474659	100

(Source: <https://ndl.iitkgp.ac.in/>)

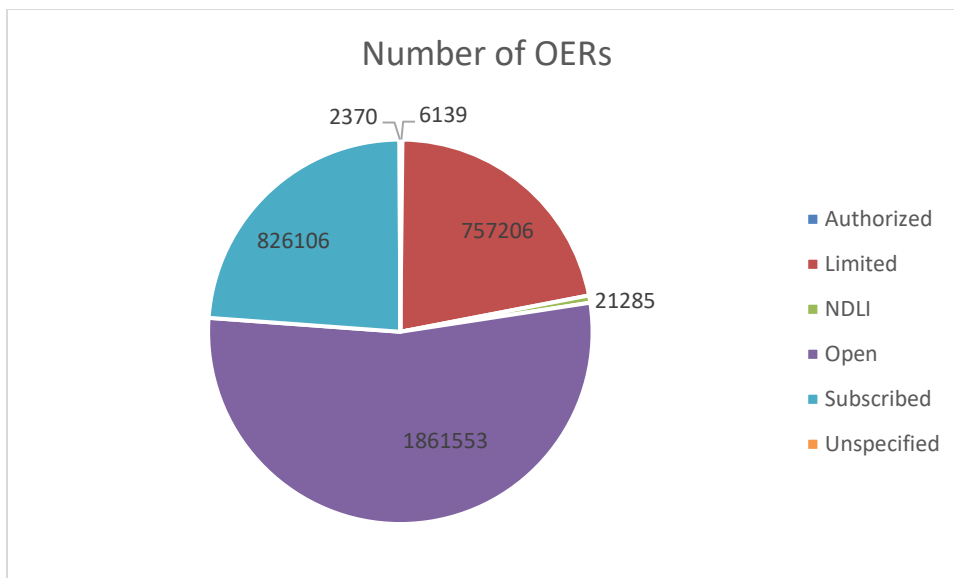


Figure 5: Access Restriction of OERs in Education discipline in NDLI
(Source: <https://ndl.iitkgp.ac.in/>)

The above table 5 shows that more than half number of OERs in Education discipline are open (53.58%) i.e. full text available to all and it is easy to access. But 826106 OERs (23.78%) in Education discipline are subscribed i.e. full-text available for those organizations/institutions which have subscribed to that Source and 757206 OERs (21.79%) are limited i.e. part of the text is freely available but full text access needs authorization from Source authority. There are other two types of records available –1. NDLI i.e. OERs may be accessed in full text mode by logging into NDLI and 2. Authorized i.e. full-text access needs authorization by Source authority by using separate login to the Source. It may be noted that authorized and limited OERs are not likely to be treated as OERs because of their nature of access.

Table 6: OERs in Education discipline according to Educational Level in NDLI

Educational Level	Number of OERs
UG and PG	1845531
Technical study	697882
Adult Education	102609
XI TO XII	32835
IX TO X	29725
V TO VIII	29143
I TO IV	13406
Up to Class I	1566
Not Specified	721962
Total	3474659

(Source: <https://ndl.iitkgp.ac.in/>)

As per data available in NDLI, 1845531 OERs in Education discipline belong to UG and PG level i.e. huge number of documents. Other 697882 OERs belong to Technical study followed by 102609 OERs available in NDLI. It is also said that in NDLI, various OERs are available for School Education such as Primary to Higher Secondary. It has also been observed that 721962 OERs are not specified.

Table 7: Contributors of more than 1000 OERs in Education discipline in NDLI

Name of the Contributors	Number of OERs
Arvind Gupta	1737
B R Gupta	1209
Bernard C Beins	49158
Frances Benjamin Johnston	2969

Gottsocho Schleisner	1548
J J Nagrath	1073
J B Gupta	1441
R Mehta	1158
R S Khurmi	1212
S. Sharma	1563
U A Bakshi	1260
V K Mehta	1234

(Source: <https://ndl.iitkgp.ac.in/>)

The above table presents the author's contribution in NDLI more than 1000 OERs. It shows that highest number of contribution goes to Bernard C Beins (49158 OERs) followed by Frances Benjamin Johnston (2969 OERs). There are other contributors like Arvind Gupta, Gottsocho Schleisner, S. Sharma and J B Gupta whose contribution is more than 1400 OERs. Besides above cited contributors, V K Mehta, U A Bakshi, R S Khurmi, R Mehta J J Nagrath may be mentioned for their contribution in Education discipline in NDLI.

Table 8: Languages of OERs in Education Discipline in NDLI

Languages	Number of OERs
Assamese	1543
Bengali	1171
English	3036224
Gujrati	2319
Hindi	22214
Maratha	1380
Nepali	116
Odia	167
Punjabi	403
Sanskrit	2041
Santali	15
Tamil	3031
Telegu	2227
Urdu	4150

(Source: <https://ndl.iitkgp.ac.in/>)

From the above table, it is observed that OERs in Education discipline in NDLI have been found in almost all Indian languages. It is obvious that most of the OERs are found in English (3036224 OERs) followed by Hindi (22214 OERs). It is also observed that OERs have been found in Bengali, Odia, Gujrati, Santali, Urdu, Tamil, Telegu, etc. The same result has been observed by Chakrabarti and Maharana in 2019 in his paper related with Library and Information science. They observed that 95 Open Access Repositories in OpenDOAR are available in English. So English is the main source of OERs not in education discipline but also in other subject (Chakrabarti & Maharana, 2019). In NDLI, OERs are also available in different foreign languages like Chinese, Arabic, Tibetan, Czech, German, French, Japanese, etc.

Table 9: Sources of OERs in Education discipline in NDLI

Name of the Sources	Number of OERs
CiteSeerX	193883
DOAJ	179729
ERIC	772811
FOSSEE	105032
IEEE Xplore Digital Library	185918
Paperity	160621
Semantic Scholar	297859
World e book library	194525
Other Different Sources	1384281
Total	3474659

(Source: <https://ndl.iitkgp.ac.in/>)

The table 9 indicates that there are many open learning repositories in and around the world from where NDLI collects their metadata and/or full text. Among them ERIC database (772811 OERs) are the main sources in Education discipline followed by Semantic scholar (297859 OERs) and then followed by World e book library (194525 OERs) . There are other sources like DOAJ, FOSSEE, Paperity, IEEE Xplore Digital Library from where NDLI collects educational resources.

5.4 NPTEL

NPTEL is an abbreviated form of National Programme on Technology Enhanced Learning. It is an online learning platform of 600 web and video courses in various branches of engineering and technology both UG and PG level. A student can register himself for participating the courses available online and can get a valid certificate after successful completion of the courses. It is also an initiative of MHRD, Govt. of India (NPTEL,2021).

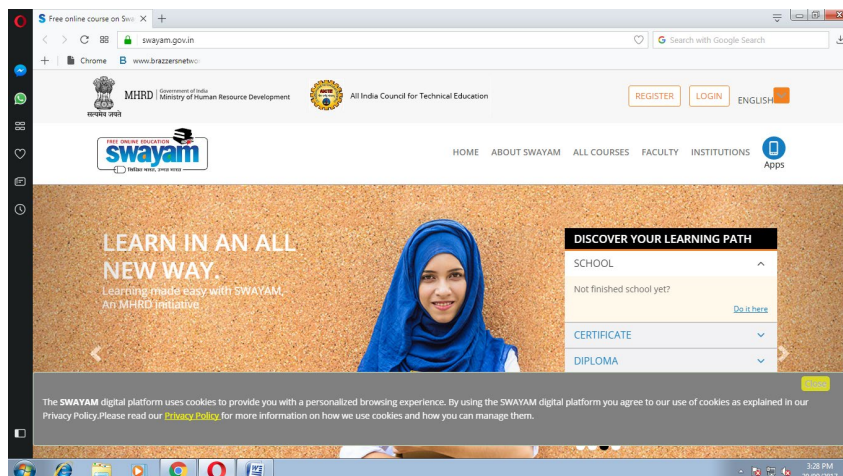


(Figure 6: Homepage of NPTEL)
(Source: <http://nptel.ac.in/>)

After browsing through NPTEL, only 01 course 8week duration on Educational Leadership is available and ongoing course designed from IIT Kharagpur. The course materials i.e. audio, video and text are important sources of OERs in Education discipline. Das in 2011 in his paper discussed different national knowledge portals of NPTEL containing OER, subject-wise distribution of NPTEL contents, distribution of NPTEL contents according to content creators and opined that LIS professionals in India were employed to maintain OER at many institutions of national importance (Das,2011).

5.5 SWAYAM

The full form of SWAYAM is Study Webs of Active-Learning for Young Aspiring Minds. It is an online interactive course on all branches of knowledge except Technology based courses. It is one of the forms of Massive Open Online Courses. Any faculties of Colleges and universities can provide any innovative course idea and from that idea he or she can develop credit based course module. The courses are available free of cost to any learner. The SWAYAM platform is presently developed by MHRD and NPTEL, IIT Madras with the help of Google Inc. and Persistent Systems Ltd (SWAYAM,2021).



(Figure 7: Homepage of SWAYAM)
(Source: <https://swayam.gov.in/>)

Table 10: Coordinator wise Courses of SWAYAM in Education Discipline

Name of the Coordinating Organization	Number of Courses
IGNOU	01
NIOS	02
AICTE	09
NITTR	09
CEC	14
Total	35

From the table 10, it is found that 14 courses in Education discipline have been coordinated by CEC (Consortium for Educational Communication) for under-graduate education, the highest course coordination through SWAYAM platform in Education discipline followed by AICTE (All India Council for Technical Education) (9 courses for self-paced and international courses) and 9 courses of NITTR (National Institute of Technical Teachers Training and Research) for Teacher Training programme. Besides these above mentioned courses, 1 course for IGNOU for out-of-school students and 2 courses for NIOS for school education are also available in SWAYAM platform. These courses have been developed in 4 quadrants – (1) video lecture, (2) Study Material (3) Self-assessment tests by providing tests and quizzes and (4) Discussion forum available online for clearing the doubts.

Table 11: Duration wise Courses of SWAYAM in Education Discipline

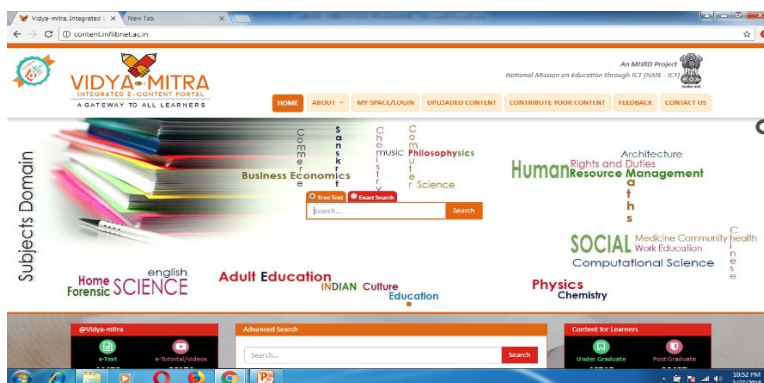
Duration of Courses	Number of Courses
4 Weeks	02
6 Weeks	03
8 Weeks	09
12 Weeks	08
15 Weeks	07
16 Weeks	05
24 Weeks	01
Total	35

The above figure 7, table 10 and table 11 state that total 35 courses on various topics of Educational discipline is available on SWAYAM platform. CEC is the main organization arranging 14 courses in Education discipline followed by AICTE (9 courses) and NITTR (9 courses). It is also observed that most of the courses have 8 weeks' duration (9 courses) followed by 12 weeks courses (8 courses) and then followed by 15 weeks courses (7 courses). In these courses, course materials or more precisely called as OERs are very enriched for teaching learning purpose. There are many courses like Educational Leadership, Educational Technologies, Mind Education, Technical education,

educational Architecture, Open educational resources, Teacher Education, Higher Education, Curriculum, Sociology, etc. are available in SWAYAM platform

6.6 VidyaMitra

It is a learning portal having OERs of different type like audio/video, text, multimedia etc. It is a project of MHRD NME-ICT, GOI. It is basically a subject wise integrated e content portal. 3948 total number of documents have been found as OERs in education discipline (Vidyamitra,2021).



(Figure 8: Homepage of Vidyamitra)
(Source: <http://vidyamitra.inflibnet.ac.in/>)

Table 12: Topic wise number of OERs in Education discipline in Vidyamitra

Topic	Number of OERs
Adult education	199
Distance Education	276
Education	1993
Elementary Education	05
Special Education	03
Women education	01
Youth Development and Education	144
Other Topics	1327
Total	3948

(Source: <http://vidyamitra.inflibnet.ac.in/>)

The above table shows that in Vidyamitra, there are many OERs in Education discipline available like adult education, distance education, elementary education, youth education, etc. Among these OERs, OERs on distance education (276 OERs) are available in large number after general education (1993 OERs). The availability of OERs on Adult education (199 OERs) and OERs on Youth Development and Education (144 OERs) is noteworthy.

Table 13: Type of OERs in Education discipline in Vidyamitra

Type of OERs	Number of OERs
Web References	1384
e-Text	389
Web resources	365
Self-Assessment	106
e-Tutorial	1704
Total	3948

(Source: <http://vidyamitra.inflibnet.ac.in/>)

The above table indicates that 3948 number of OERs in Education discipline available in the Vidyamitra. Total number of OERs exceeds total number of OERs because in one item, different type of learning materials is available in Education discipline. In Vidyamitra, e-Tutorial is available in large number (1704 OERs) followed by web references (1384 OERs) then followed by e-text (389 OERs).

Table 14: OERs in Education discipline according to Educational Level in Vidyamitra

Educational Level of OERs	Number of OERs	Percentage
UG	1610	40.78
PG	1177	29.81
Not Specified	1161	29.41
Total	3948	100

The table 14 states that in Vidyamitra, 1610 OERs (40.78%) have been found in Education discipline for UG students followed by 1177 OERs (29.81%) for PG students. It is surprising to note that 1161 OERs have been found unspecified i.e. not confined to any educational level particularly out of 3948 OERs.

Table 15: Organisation wise number of OERs available in Education discipline in Vidyamitra

Name of the Organisations	Number of OERs
Aligarh Muslim University	78
Allahabad University	63
CEC, New Delhi	1162
IGNOU AND NIOS	1543
M S University, Baroda	15
Ramkrishna Misson Vivekananda University, Kolkata	34
University of Mumbai	54
College of social Work, Nirmala Niketan, Mumbai	235
Other Organisations	764
Total	3948

(Source: <http://vidyamitra.inflibnet.ac.in/>)

The above table 15 explicates organization wise number of OERs in Education discipline available in Vidyamitra. IGNOU and NIOS is the highest number of OERs provider (1543 OERs) followed by CEC (1162 OERs) then followed by College of social Work, Nirmala Niketan, Mumbai (235 OERs) in Vidyamitra. One thing is to be pointed out that Ramkrishna Misson Vivekananda University, Kolkata provides 34 OERs in Vidyamitra.

6.6 SwayamPrabha

It is free DTH channel for imparting Education for all. It is a group of 34 DTH channels which telecasts educational programmes on all days all time in a year through the GSAT-15 satellite. Actually each and every day a new content of four hours will generally be repeated 5 more times in a day so that any student can visit it in his or her convenient time. NPTEL, IITs, UGC, CEC, IGNOU, NCERT and NIOS provide content for students here. INFLIBNET Centre, Gujrat maintains this portal. After viewing this portal, only one course on Child Development and Learning (SWAYAM Prabha Course Code – G13) in which 5 faculties are involved. In this course, 6 units have been divided into 27 modules. Most of the modules have been designed with at least 2 lectures. These lectures are valuable source of OERs. 34 number of channels and 382017 number of titles are available (SwayamPrabha,2021).



(Figure 9: Homepage of SwayamPrabha)
(Source: <https://www.SwayamPrabha.gov.in/>)

Table 16: Learner wise distribution of OERs in Education discipline in SwayamPrabha

Type of Learners	Number of OERs
UG	4888
Other	85
Total	4973

(Source: <https://www.SwayamPrabha.gov.in/>)

From the table 16, it is said that total 4973 OERs have been found in Education discipline in SwayamPrabha. Among 4973 OERs, most of the OERs have been assigned for Under Graduate course. So it is opined that this OER is basically for UG courses.

Table 17: Channel wise distribution of OERs in Education discipline in SWAYAMPARBHA

Name of the Channel	Number of OERs
Channel 4	4442
Channel 20	413
Channel 16	112
Channel 2	6
Total	4973

(Source: <https://www.SwayamPrabha.gov.in/>)

From the table 17, it is said that total 4973 OERs have been found in Education discipline consisting of 4442 OERs of Channel 4 (Educational Multimedia Research Centre), 413 OERs Channel 20 (Indira Gandhi National Open University), 112 OERs of Channel 16 (Jamia Millia Islamia, New Delhi) and 6 OERs of Channel 2 (Consortium for Educational Communication and Educational Multimedia Research Centre).

Table 18: Topic wise Distribution of OERs in Education discipline in SwayamPrabha

Name of the Topic	Number of OERs	Percentage
B.Ed.	4301	86.49
Teacher Education	334	6.72
Child Development and Learning	112	2.25
Philosophical & Sociological Foundation of Education	43	0.86
Other	183	3.68
Total	4973	100

(Source: <https://www.SwayamPrabha.gov.in/>)

The above table clearly depicts that most of the OERs in Education discipline is mainly related with B.Ed. i.e. almost 86.49%. Rest of the OERs in Education discipline belong to Teacher Education (6.72%), Child Development and Learning (2.25%), Philosophical & Sociological Foundation of Education (0.86%), etc.

Table 19: Language wise Distribution of OERs in Education discipline in SwayamPrabha

Name of the languages	Number of OERs
English	4779
Hindi	191
Other	3
Total	4973

(Source: <https://www.SwayamPrabha.gov.in/>)

The above table 19 shows that OERs in Education discipline is mainly available in English language followed by Hindi. As English is the main official language in India and as India is a multilingual country, OERs in English language is helpful for everyone whose vernacular language is other than English.

6. Major Findings

From the above tables and figures, and also from above analysis, major observations are stated below:

Table 20: Summary of Indian Online Learning Repositories

Name of Learning Repositories	Year of Launch	Organization	Total number of Collections in education discipline	Type of Resources	Learners' Level of Resources	Language
eGyankosh	2005	IGNOU, NewDelhi	9489	Video, Text	UG, PG	English
ePGPathsala	2012	INFLIBNET, Gujrat	106	Video, Text	UG, PG	English
NDLI	2006	IIT Kharagpur, West Bengal	3474659	Video, Text and Other	UG, PG & School Education	English Hindi and Regional Language
NPTEL	2003	Seven Indian Institutes of Technology and Indian Institute of Science, Chennai	OERs available in 01 courses	Video, Text	UG, PG	English
SWAYAM	9.7.2017	MHRD (Ministry of Education) and AICTE	OERs available in 35 courses	Video, Text	UG, PG	English
Vidyamitra	2014	INFLIBNET, Gujrat	3948	Video, Text	UG, PG	English
SwayamPrabha	9.9.2017	INFLIBNET, Gujrat	4973	Video	UG	English Hindi

(Source: Web page of all Indian Online Learning Repositories)

- The oldest Online Learning Repository is eGyankosh (2005) and the newest one is SwayamPrabha (09.09.2017).
- Most of the learning repositories are maintained by INFLIBNET, Gujrat
- NDLI possesses a large number of OERs in Education discipline (3474659 OERs) among different digital learning sources in terms of collection. NDLI has also different types of contents in Education discipline.

- Most of the Online Learning Repositories has the combination of text and video except NDLI. PDF format is available in a large number as OERs in Education discipline and the target audience of the most of the OERs in Online Learning Repositories are mainly for UG and PG level except NDLI.
- It is also observed that eminent faculty members created this OERs available in Online Learning Repositories and these OERs have been reviewed properly.
- OERs in Education discipline are available in vernacular languages like Hindi, Bengali, Odia, and also in foreign languages like German, French, Italian etc mainly in NDLI. In other Online Learning Repositories, OERs in English are mainly available.
- It is also observed that some OERs are available in sometimes more than one repositories.

7. Suggestions and Conclusions

These above mentioned online learning repositories are available free of cost and it is accessible from anywhere in the globe any time. Anyone can access the resources from these online repositories which are full of relevant open educational resources in Education discipline. It may be opined learners and academicians both have been benefitted through these online learning repositories. It is noteworthy that OERs in Education discipline available in these online learning repositories are not in a large number though helpful and enriched. Students of regular stream as well as distance stream can be benefitted all time especially during COVID situation. It is a matter of regret that the large number of academicians, researchers are not at all aware with these OERs in Education discipline and the maintenance of these online learning repositories must be done periodically as some OERs have not properly been accessed at the time of data collection. In spite of its significance, OERs may be regarded as supplement and too some extent complement to physical resources but OERs cannot be replaced physical resources.

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