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CONTENT ANALYSIS-BASED ASSESSMENT OF INDIGENOUS OER REPOSITORY WITH SPECIAL REFERENCE TO LIBRARY AND INFORMATION SCIENCE

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Abstract

The advent of the internet has led to a significant rise in the popularity of open access within scholarly societies. This includes open access books, journals, theses, and repositories. In this era of technology, a new concept has emerged known as Open Educational Resources (OER). These resources are easily accessible through the internet, allowing anybody to produce, post, search, and retrieve digital content at their convenience. This research specifically examines the current state of Open Educational Resources (OERs) in different learning repositories within the field of Library and Information Science (LIS). The researchers have examined the availability of Open Educational Resources in LIS discipline in these OERR and evaluated OERR through eight criteria having 3 points each. After evaluation it is found that OERR eGyankosh stood first securing 23 points and SWAYAM and ePGPathshala stood 2nd position securing 22 points. In short it may be said that OERR passed the criteria successfully but the availability of OERs in LIS discipline is not at all satisfactory.

Keywords: Open educational resources repository (OERR), Learning Repositories, Evaluation, Library and Information Science (LIS), Assessment, content Analysis

Introduction:

Currently, we are familiar with the concept of an open world, where anyone can freely access digital resources from any location over the internet. Another interpretation of "open" is that everything accessible on the digital platform must be offered free of charge. Within the realm of digital platforms, certain Open Educational Resources (OERs) can be found in the public domain, while others are openly licenced instructional materials. These instructional materials are commonly referred to as Open Educational Resources (OERs), which can be accessed at any time and from any location, provided that internet access is accessible. There is currently no universally accepted definition for Open Educational Resources. It encompasses any publicly accessible internet resources that possess instructional worth and are openly licenced. A multitude of Open

Educational Resources (OERs) can be found globally across many digital platforms, such as digital libraries and institutional digital repositories. Several open educational resources repositories exist globally, but in India, notable ones include eGyankosh, ePG Pathshala, SWAYAM, Vidyamitra and Swayam Prabha. These repositories offer Open Educational Resources (OERs) specifically in different subjects.

Related Studies:

Based on an extensive review of both international and Indian literature, experts have identified the following noteworthy studies---

Micunovic, Rako and Feldvari map the practices regarding Open Educational Resources' (OERs) development and implementation at European higher education institutions (HEIs) in the Field of library and information science (LIS) during the COVID-19 pandemic and to identify the Challenges and obstacles to their full and optimal utilization, both during crisis situations and beyond. The results have shown that the COVID-19 pandemic served as an impetus for the adoption of OERs, particularly in the context of digital education (DE) and remote learning. However, there is still a lack of awareness of the many benefits and opportunities they provide to higher education, as evidenced by the fact than less than half LIS schools/departments used OERs. Certain issues were identified, such as the lack of institutional policies regarding OERs, inadequate peer-review of OERs, and, in most cases, the absence of monitoring and evaluation practices for OERs. The results and insights from this study can be used to improve all aspects of OERs' implementation and thus accelerate their adoption, both with regard to LIS schools/departments and other fields. Further research into the topic through interviews and focus groups should provide a deeper understanding of opportunities, challenges and practices surrounding the adoption of OERs in the field of LIS education. (Micunovic et al., 2023). Bhattacharyya examined the availability of open educational resources in the field of education in online repositories managed by the Ministry of Human Resource Development. The analysis focused on factors such as the kind, quantity, topic, and language of the resources. (Bhattacharyya, 2022). Mishra articulated his perspective on the necessity of incorporating electronic learning in library and information science (LIS) education, emphasizing the significance of an electronic learning framework for the LIS field globally. The researcher recommended implementing a blended learning approach for LIS study, rather than relying solely on electronic assistance. This is because the traditional method of instruction is more effective than the electronic mode (Mishra, 2019). In 2017, Thomas stated that the education system had been improved by many Open Educational Resources (OERs) due to significant improvements in Information and Communication Technologies (ICTs). The optimal utilisation of opportunities provided by technological breakthroughs poses a big challenge for education institutions and has substantial implications, including cost, accessibility, equity, pedagogy, and quality. The author also discussed several opportunities and challenges presented by the implementation of Open Educational Resources (OERs) in the contemporary education system. Various notable initiatives in India have been undertaken to promote the proper utilization of ICTs (Thomas, 2017). Dutta stated that India is one of the nations that has made significant progress in recent years by improving its position, collecting data, and undertaking a huge initiative

to preserve human knowledge in a repository. The Government of India has initiated several innovative programmes and initiatives such as SHAKSHAT, NMEICT, NPTEL, OSCAR, E-network, and others, aimed at developing and disseminating educational resources. The author primarily addressed the opportunities and challenges related to the implementation of Open Educational Resources in the Indian higher education system (Dutta, 2016). Thakran and Sharma conducted an analysis of the role of competent personnel in Open Educational Resources (OER) within the challenges faced by higher education in India. The writers also examined and explored a few Open Educational Resources (OER) initiatives that are now driving India's efforts. The authors also analysed initiatives aimed at increasing access to education through Open Educational Resources (OER), as well as initiatives aimed at developing OER-related skills for teachers (Thakran & Sharma, 2016). According to Upadhyay and Upadhyay (2015), academic libraries are adapting to the emergence of Open Educational Resources (OERs) and are gaining recognition across different academic disciplines. Library professionals can provide guidance and collaborate with institutions, faculty, and students as they engage with OERs. In their study, Chakraborty and Ghosh discussed the advantages of Open Access Repositories (OAR), specifically in developed countries. The study emphasized the diverse problems and difficulties faced by Indian LIS specialists in organizing sophisticated educational resources. The authors also discussed the availability of open educational resources in the higher education system and research foundations of India. They examined the declaration made by the UGC, India, which promotes the use of electronic resources for theses and dissertations, enabling easier access to comprehensive information at the higher education level. (Chakraborty and Ghosh, 2011).

From the above discussion, it is clear that most of the related studies have been conducted on Indian Online Learning Repositories or open educational resources repositories but no such study has been found on the evaluation of that learning repository especially in Library and Information Science. So, the researchers have chosen the topic for study.

Aim and Objective of the study:

The main aim of the study is to assess the Indian open educational resources repositories based on the content analysis----

To fulfill the aim of the study the following objectives have been enumerated--

i. to find out the current Open Educational Resources Repository endorsed by UGC/MHRD (now Ministry of Education) that provide OER in the field of Library and Information Science (LIS);

ii. to assess the repositories following standard 8 rubric points.

Research questions:

This study will be based on the the answer of the specific questions—

i. Can all the Open Educational Resources Repositories meet up all rubric?

ii. How far these open educational resources available in the repositories meet up the requirements of students?

To answer the questions stated above, researchers go through the content of Indian OERR for assessment in a proper way.

Methodology:

Researchers gather data and information from the webpages of Indian OERR of MHRD (Now Ministry of Education) in accordance with the study's objectives. All the collected data from the relevant Indian OERR of MHRD (Now Ministry of Education) are then summarized, tabulated, and analysed to present a clear picture. Quantitative examination of the data included calculating the percentage, while qualitative analysis was performed by referring to the Indian OERR of MHRD (Now Ministry of Education). This study employed the Case study approach and content analysis to assess the Indian OERR under the purview of the Ministry of Human Resource Development (now Ministry of Education). The study was conducted by exploring the OERs indexed in Indian OERR during the month of August,2023. Subsequently, the data were retrieved from the repository and condensed into a predetermined MS Excel format. Subsequently, the data were evaluated in accordance with the study's purpose for evaluation. The data was subjected to quantitative analysis, with the percentage also being reported. For qualitative analysis, researchers examined the OER (Open Educational Resources) found in certain Indian OERR. Additionally, they referred to secondary materials such as journal papers and book chapters. Subsequently, the researchers examined a criterion specifically developed by the British Columbian OER Librarians' Working Group to assess the Open Educational Resources Repository (OERR). This rubric consists of many categories, each of which is assigned a score of three for excellent quality, two for medium quality, and one for low quality. The evaluation of an OERR can be determined by multiplying 8 rubric points by 3 levels, resulting in a total of 24 points. (OERR Rubric, n.d.).

Scope of the Study:

The researchers identified several Indian online learning repositories, but specifically chose the following repositories of MHRD (now Ministry of Education) - eGyankosh, ePG Pathshala, SWAYAM, Vidyamitra and Swayam Prabha due to their inclusion of Open Educational Resources (OERs) in the discipline of Library and Information Science (LIS).

Data interpretation and analysis:

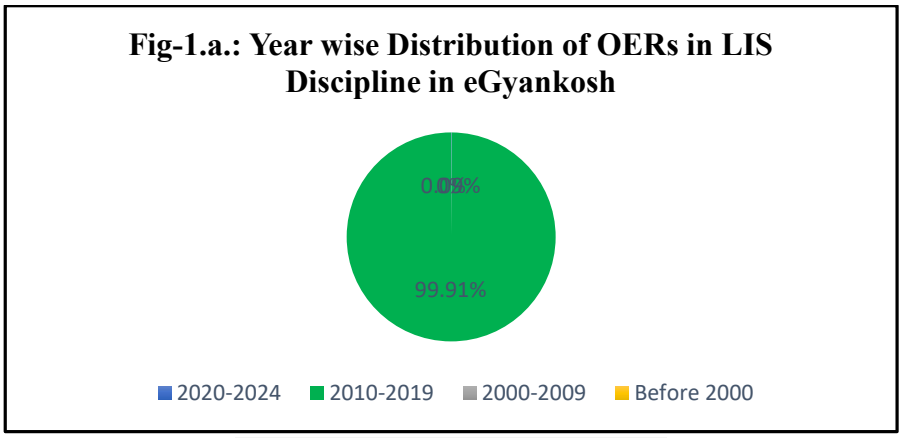
To conduct a thorough analysis and interpretation of the data obtained from the specified URL of Indian Online Learning Repositories, the subsequent tables and figures have been created in accordance with the aforementioned objectives---**eGyankosh**:

It is an online platform. The National Digital Repository is a centralized platform designed to store, catalogue, protect, transmit, and distribute the computerized educational materials created by Open and Distance Education Institutions across the country. IGNOU, New Delhi, founded it in 2005. The contents in eGyanKosh are subject to copyright protection, primarily owned by IGNOU, unless otherwise indicated (e-Gyankosh, n.d.). After perusing the

webpages of eGyankosh, the subsequent tables and data have been compiled for meticulous examination ----

Table-1: Year wise Distribution of OERs in LIS Discipline in eGyankosh		
Year	**Number of OERs in LIS Discipline**	**Percentage**
2020-2023	1	0.0908%
2010-2019	1100 (2017: 1099 and 2018: 1)	99.092%
2000-2009	0	0%
Before 2000	0	0%
Total	**1101**	**100%**

(Source: https://egyankosh.ac.in/)



(Source: https://egyankosh.ac.in/)

The above chart and fig (Chart-1 & Fig-1. a.) shows that from 2020 to 2023, only 01 (one) resource in the LIS discipline was uploaded on eGyankosh. In contrast, from 2010 to 2019, a total of 1100 resources were submitted, with the majority being uploaded in 2017. It is noteworthy that no Open Educational Resources (OERs) were available before to 2017 (eGyankosh, n.d.).

e-PG Pathshala:

It is an initiative by the Ministry of Human Resource Development, implemented by the University Grants Commission, as part of the National Mission on Education using Information Communication Technology (NME-ICT). INFLIBNET, Gujarat, founded it in 2012. The core component of the education system is the substance and its standard. It consists of superior quality educational materials in 70 disciplines of social sciences, arts, humanities, natural and mathematical sciences, history, and languages. These materials have been developed by subject experts from Indian academic institutions and other research and development organisations in the country (e-PGPathshala, n.d.). Tables have been provided below for detailed analysis after reviewing the webpages of e-PG Pathshala----

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

Title of the Paper	Number of Modules/ OERs	Percentage
P-01: Knowledge society	17	4.32%
P-02: Knowledge organization and Processing: Classification	26	6.62%
P-03: Knowledge organization and Processing: Cataloguing	34	8.65%
P-04: Information Sources, Systems and Services	35	8.90%
P-05: Information Communication Technology for Libraries	39	9.92%
P-06: Management of Libraries and Information Centres and Knowledge Centres	31	7.88%
P-07: Information Storage and Retrieval	15	3.81%
P- 08: Digital libraries	30	7.63%
P-09: Social Science Information System	15	3.81%
P- 10: Informatics and Scientometrics	19	4.83%
P-11: Academic libraries	23	5.85%
P-12: Special and research libraries	28	7.12%
P-13: Public libraries	36	9.16%
P-15: Library Use and User Studies	31	7.89%
P-20: Media and Information Literacy	14	3.57%
Total	**393**	**100%**

(Source: https://epgp.inflibnet.ac.in/)

The data in table-2 reveals that the e-PG Pathshala has the highest percentage of OERs related to Information Communication Technology for Libraries, with a value of 9.92%. The second highest percentage is observed in the category of public libraries, which is 9.16%. The third highest percentage is found in the category of Information Sources, Systems and Services, with a value of 8.90%. The fourth highest percentage is seen in the category of Knowledge organisation and Processing: Cataloguing, which is 8.65%. Lastly, the fifth highest percentage is observed in the category of Library Use and User Studies, with a value of 7.89%. The study additionally reveals the presence of Open Educational Resources (OERs) pertaining to various topics such as the Management of Library and Information Centres and Knowledge Centres, Knowledge organisation and Processing: Classification, academic libraries, Informatics and Scientometric Knowledge society, Information Storage and Retrieval, Social Science Information System, and Media and Information Literacy.

SWAYAM:

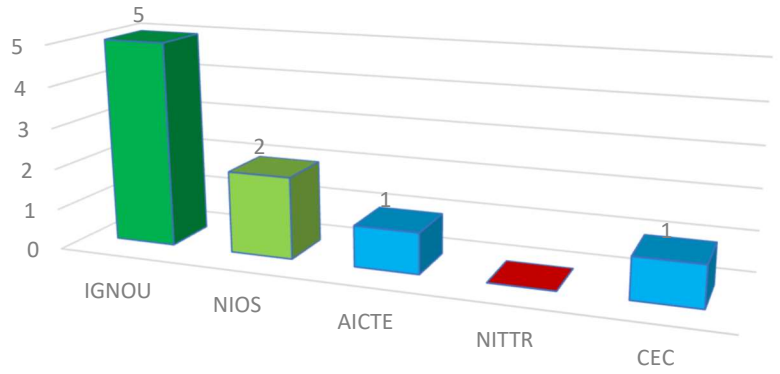
It was created in 2017 through a collaboration between the Ministry of Education, NPTEL at IIT Madras, Google Inc., and Persistent Systems Ltd. The platform is an Indian MOOCs initiative developed by the Government of India with the explicit goal of achieving three basic aspects of the Education Policy: access, value, and quality. The aim of this effort is to select the

most optimal Open Educational Resources (OERs) that cater to the needs of all individuals, especially those facing the most challenging circumstances. SWAYAM aims to provide an opportunity for students who have been unaffected by technological advancements and have not been able to participate in the digital era (SWAYAM, n.d.).

Table 3: Coordinator wise Courses of SWAYAM in LIS Discipline		
Name of the Coordinating Organization	**Number of Courses (Open)**	**Percentage (%)**
IGNOU	5	55.55%
NIOS	2	22.23%
AICTE	1	11.11%
CEC	1	11.11%
Total	**9**	**100%**

(Source: https://swayam.gov.in/)

Fig.-3.a.: Coordinator wise Courses of SWAYAM in LIS Discipline



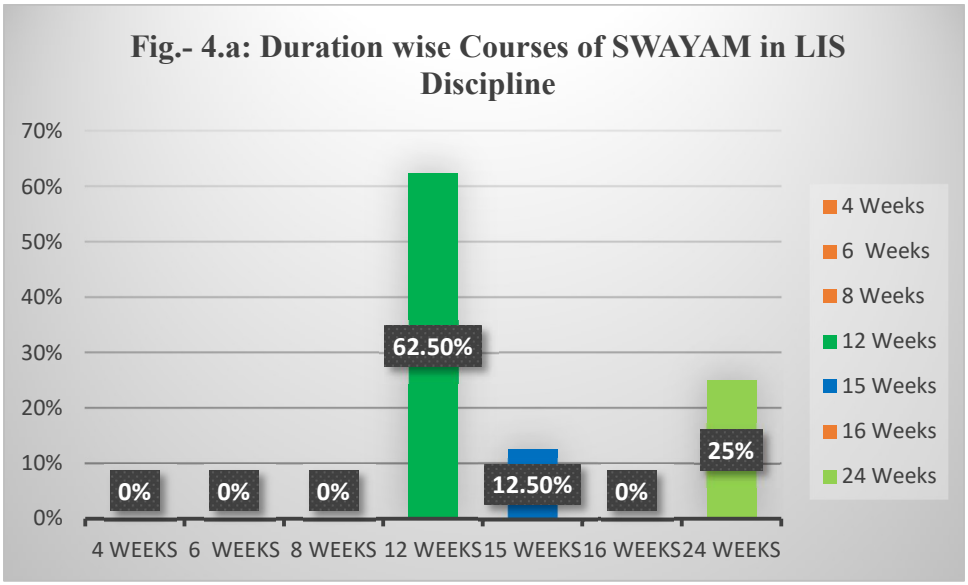
(Source: https://swayam.gov.in/)

The above table 3 and fig 3.a. shows that IGNOU conducted 55.55% of total courses in LIS discipline in SWAYAM platform; 22.22% course conducted by NIOS and AICTE & CEC conducted 11.11% of the total courses in LIS discipline. From the above table, total eight courses on SWAYAM platform have been observed.

Table 4: Duration wise Courses of SWAYAM in LIS Discipline		
Duration of Courses	**Number of Courses**	**Percentage**
4 Weeks	0	0%
6 Weeks	0	0%
8 Weeks	0	0%
12 Weeks	5	62.5%

15 Weeks	1	12.5%
16 Weeks	0	0%
24 Weeks	2	25%
Total	**8**	**100%**

(Source: https://swayam.gov.in/)



(Source: https://swayam.gov.in/)

The above table 4 and fig 4.a. it is clear that most of the courses are 12 weeks duration e.g. 62.5% 24 weeks duration of the courses are 25%, 15 weeks courses are only 12.5% and in another point is that there are no courses in 4 Weeks, 6 Weeks, 8 Weeks and 16 Weeks. Here number of courses 8 have been found as one course run by AICTE is a self-paced course having no time duration.

Vidya Mitra:

It is a virtual learning point for all types of electronic resources maintained by NME-ICT of Ministry of Human Resources Development, Govt. of India. It was established in 2014 by INFLIBNET, Gujrat. Students, job seekers, and all types of learners can access their ideal resources and materials including audio/video learning materials without any issues in a single platform through this portal. It is basically a subject wise facilitated e-content entry (Vidya-mitra, n.d.).

Table 5: Topic wise number of OERs in LIS discipline in Vidya-mitra		
Topic	**Number of OERs**	**Percentage (%)**
Digital Library	21	52.5%
Impact of Information Technology: Library Collection Development and Services	03	7.5%

Library and Information Networking	01	2.5%
Library and Information Services	01	2.5%
National Information Policy	03	7.5%
Global Information Infrastructure and Policy	01	2.5%
Information Sources	02	5%
ICT Application in Libraries	01	2.5%
Marketing of LIS Services	01	2.5%
Library Automation	02	5%
Types of Libraries	02	5%
Document Processing and Organising	02	5%
Total	**40**	**100%**

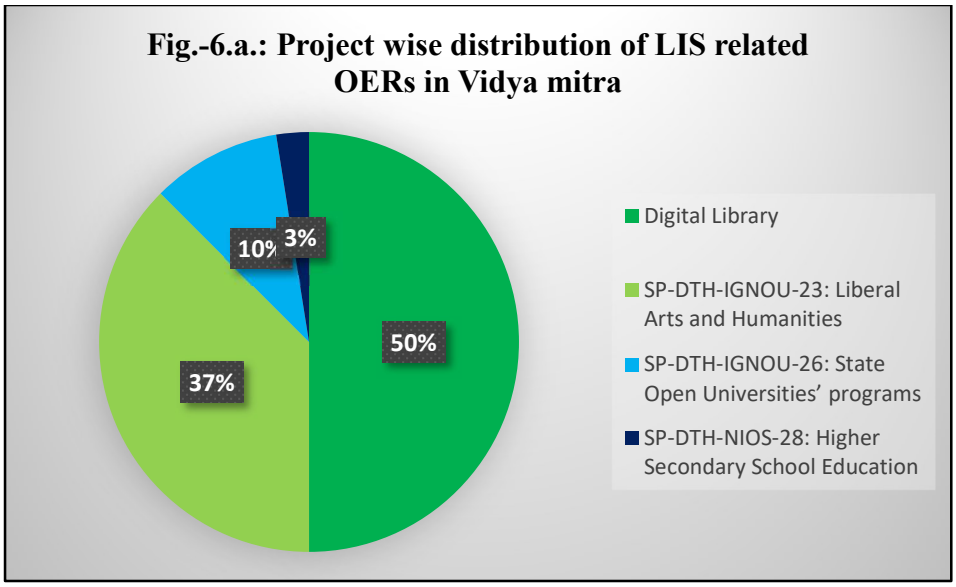
(Source:http://vidyamitra.inflibnet.ac.in/)

The table above, Table 5, displays the highest quantity of open educational resources in the LIS discipline available in Vidya-mitra i.e. Digital Library, which accounts for 52.5%. The Open Educational Resources (OERs) on the Impact of Information Technology: Library Collection Development and Services and National Information Policy account for 7.5% of the total resources. OERs related to Information Sources, Library Automation, and Types of Libraries make up 5% of the resources. Only 2.5% of the resources are dedicated to Library and Information Networking, Library and Information Services, Global Information Infrastructure and Policy, ICT Application in Libraries, and Marketing of LIS Services. There exist multiple categories of resources, such as e-Text, Web-resources, e-Tutorial, and Self-assessment.

Table 6: Project wise distribution of LIS related OERs in Vidya-mitra

Name of the Project	Number of OERs	Percentage (%)
Digital Library	20	50%
SP-DTH-IGNOU-23: Liberal Arts and Humanities	15	37.5%
SP-DTH-IGNOU-26: State Open Universities' programs	4	10%
SP-DTH-NIOS-28: Higher Secondary School Education	1	2.5%
Total	**40**	**100%**

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



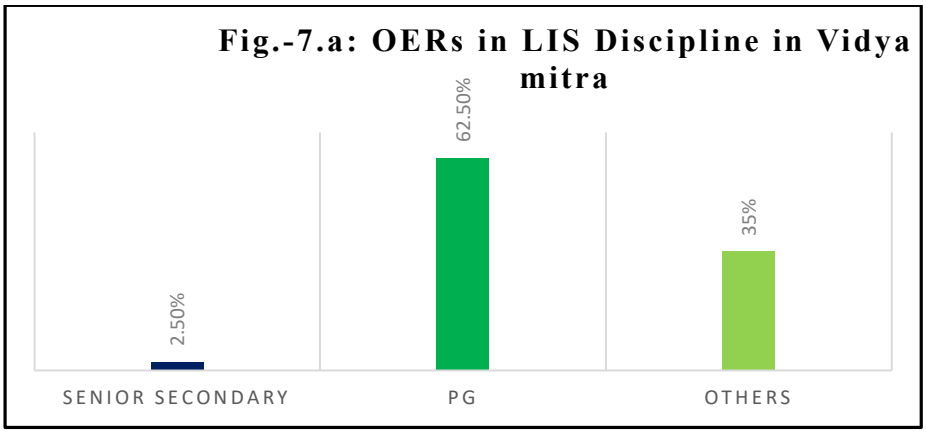
(Source:http://vidyamitra.inflibnet.ac.in/)

The above table and fig (Table 6 and Fig. 6.a) presents about project wise distribution of LIS related OERs in Vidya-mitra, most of the resources are on Digital Library that is 50%, as it is an emerging area of LIS, Others three projects under Vidya-mitra in LIS related OERs - SP-DTH-IGNOU-23: Liberal Arts and Humanities (37.5%), SP-DTH-IGNOU-26: State Open Universities' programs (10%) and SP-DTH-NIOS-28: Higher Secondary School Education (2.5%).

Table 7: OERs in LIS discipline inVidya-mitra

Level of OERs	Number of OERs	Percentage (%)
Senior Secondary	1	2.5%
PG	25	62.5%
Others	14	35%
Total	**40**	**100%**

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



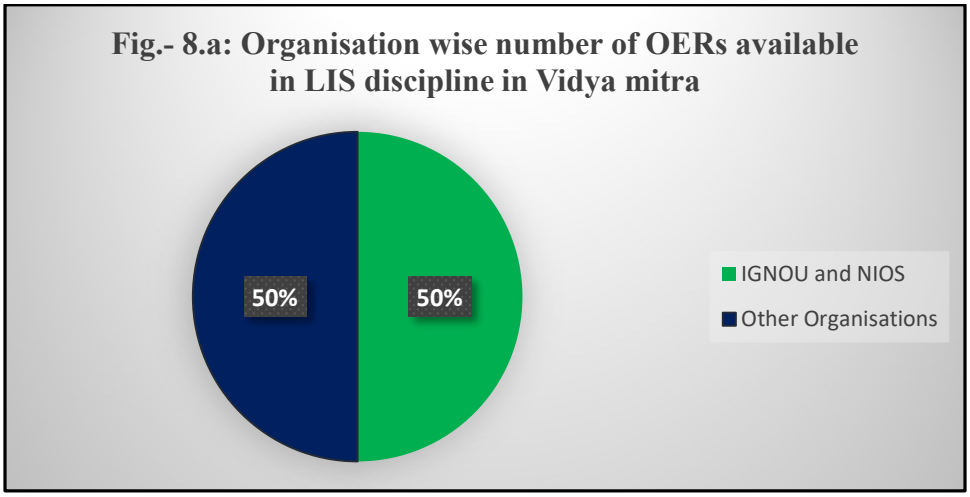
(Source:http://vidyamitra.inflibnet.ac.in/)

It is clear from the above table-7 and fig.- 7.a., that maximum number of OERs in Vidya-mitra on PG levels i.e. 62.5%; and other resources which are not specified for any level of study are 35%. It is also observed that OERs in senior secondary level is very poor in quantity e.g. only 2.5%.

Table 8: Organisation wise number of OERs available in LIS discipline in Vidya-mitra

Name of the Organisations	Number of OERs	Percentage (%)
IGNOU and NIOS	20	50%
Other Organisations	20	50%
Total	**40**	**100%**

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



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

The above table-8 and fig.-8.a. e provides a clear breakdown of the number of LIS-related OERs by organisation. It shows that IGNOU and NIOS provide 50% of the total OERs, while the remaining 50% is provided by other organisations not mentioned in the table.

Swayam Prabha:

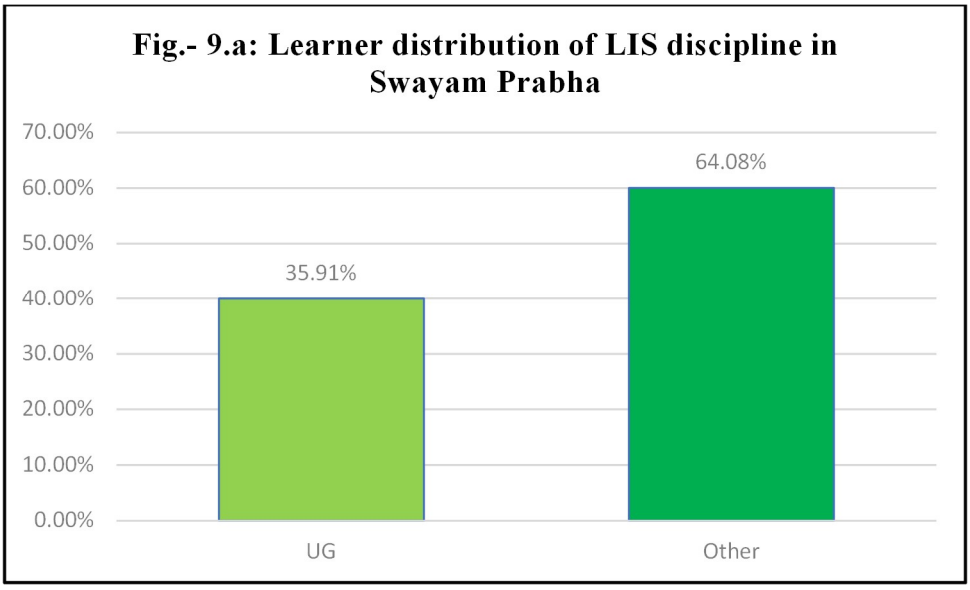
It is a platform. The system consists of 32 DTH stations that transmit educational programmes throughout the full year via the GSAT-15 satellite. The development of this was undertaken in 2017 by INFLIBNET, located in Gujrat, India. Each day, a drug lasting four hours will be repeated an extra five times, allowing individuals to access it at their convenience. The student community can access Open Educational Resources (OERs) from several reputable institutions such as NPTEL, IITs, UGC, CEC, IGNOU, NCERT, and NIOS through the Swayam Prabha INFLIBNET Centre. This programme is maintained by Gujrat. (Swayam Prabha, n.d.).

Table 9: Learner distribution of LIS discipline in Swayam Prabha

Type of Learners	Number of OERs	Percentage (%)

UG	376	35.92%
Other	671	64.08%
Total	**1047**	**100%**

(Source: https://www.swayamprabha.gov.in/)



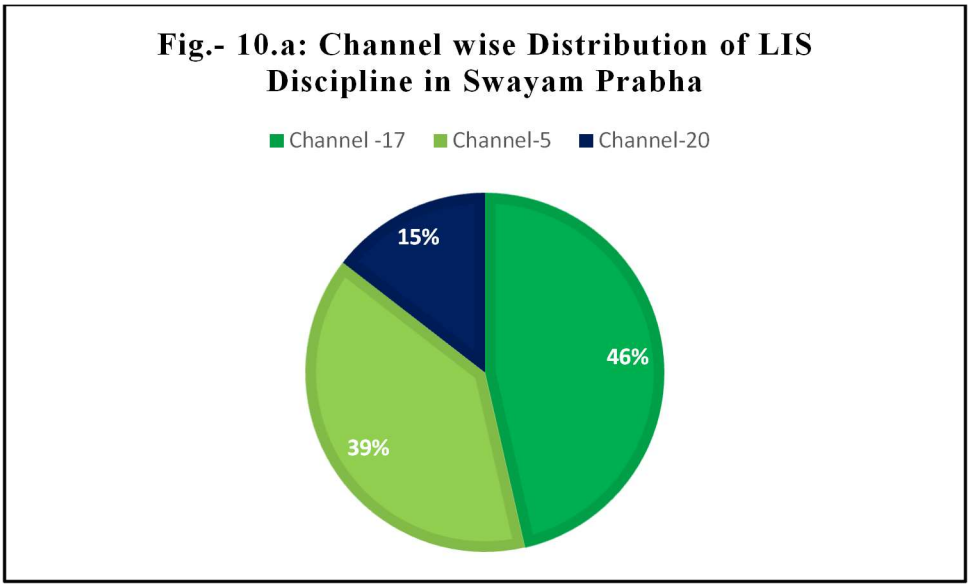
(Source: https://www.swayamprabha.gov.in/)

The above table 9 and fig 9.a. shows that OERs are available in LIS discipline in Swayam Prabha are mainly not specified for any level of learners but 376 OERs are available for Under Graduate learners i.e. 35.91% and 64.08% of total OERs are available for others.

Table 10: Channel wise distribution of LIS discipline in Swayam Prabha

Name of the Channel	Number of OERs	Percentage (%)
Channel -17	486	46.42%
Channel-5	409	39.06%
Channel-20	152	14.52%
Total	**1047**	**100%**

(Source: https://www.swayamprabha.gov.in/)



(Source: https://www.swayamprabha.gov.in/)

The above table-10 and fig.-10. a present that OERs in LIS discipline in Swayam Prabha have been telecasted through three channels. Among them, Channel-17 has 46.42% open educational resources in LIS discipline and Channel 5 has 39.06% Open Educational Resources in LIS discipline and Cahnnel-20 has 14.52%, Open Educational Resources in LIS discipline.

Table 11: Topic wise Distribution of OERs in LIS discipline in Swayam Prabha

Name of The Topic	Number of OERs	Percentage (%)
Information Sources and Services	179	17.09%
Information Sources	103	9.83%
Library Automation	102	9.74%
ICT Fundamentals	92	8.78%
Library, Information and Society	128	12.22%
Management of Library and Information Centre	72	6.87%
Organization of Knowledge: Library Classification	80	7.64%
Library and Information Centre Management	47	4.48%
Foundation of Library and Information Science	42	4.01%
Information and Communication Technology	81	7.73%
Organizing and Managing Information	50	4.78%
ICT Fundamental	35	3.34%
Document Processing and Organization	12	1.14%
Libraries: an Introduction	12	1.14%
Database and Content Organization	12	1.14%
Total	**1047**	**100%**

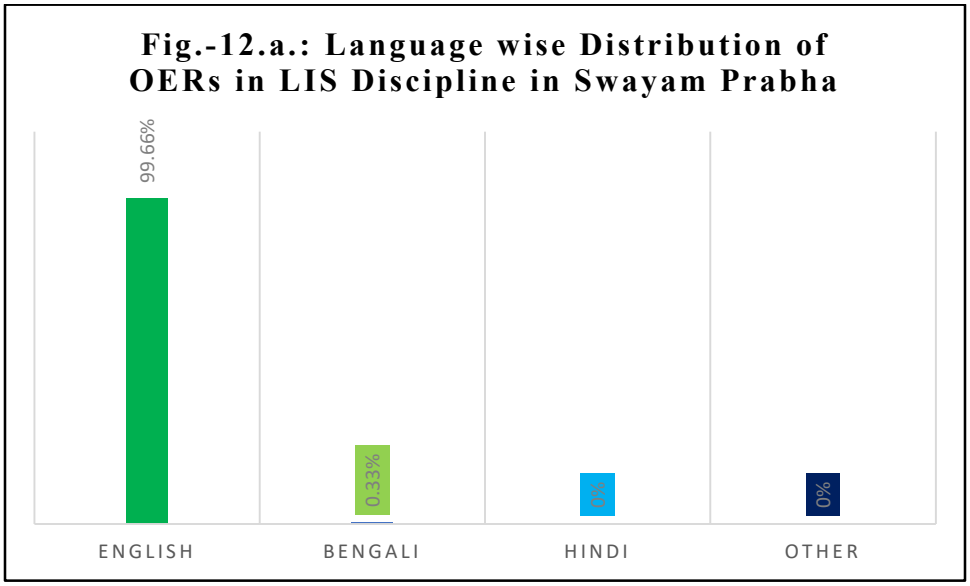
(Source: https://www.swayamprabha.gov.in/)

The above table 11 presents the distribution of OERs on various topics of LIS discipline in Swayam Prabha, where 17.09% OERs are about library sources and services; 12.22% resources are about Library, Information and Society; 9.83% resources are about Information Sources; 9.74% resources about Library Automation, 8.78% resources are about ICT fundamental; 7.73% resources about Information and Communication Technology; 7.64% resources about Organization of Knowledge: Library Classification; 6.87% resources about Library and Information Centre Management; 4.78% resources are about Organizing and Managing Information; 4.48% resources about Library and Information Centre Management; 4.01% resources are about Foundation of Library and Information Science; 3.34% resources about ICT Fundamental; and Document Processing and Organization, Libraries: an Introduction, Database and Content Organization; and other miscellaneous topic resources are less than 2%, e.g. 1.14%.

Table 12: Language wise Distribution of OERs in LIS discipline in Swayam Prabha

Name of the languages	Number of OERs	Percentage (%)
English	1045	99.66%
Bengali	2	0.34%
Hindi	0	0%
Other	0	0%
Total	**1047**	**100%**

(Source: https://www.swayamprabha.gov.in/)



(Source: https://www.swayamprabha.gov.in/)

According to the data in table-12 and fig.-12. a., the majority of open educational resources (OERs) in the LIS discipline on Swayam Prabha are in English, accounting for 99.66% of the total. OERs in Bengali make up less than 1%, while resources in other languages are not available.

Following the visualization and interpretation of the data, researchers assessed the OERR using eight criteria comprising eight factors. The results are presented in the table below—

Table-5: Criteria for assessment of Online Learning Repository

Criteria Number	Criteria for Assessment	Criteria Level	SWAYAM	Vidya- mitra	Swayam Parabha	eGyankosh	ePG Pathshala
Criteria One	Authority (the author/institution's credentials, reputation, and affiliation with the topic area addressed in the OERR)	**Level 1**	x	**x**	**x**	**x**	**x**
		Level 2	x	**x**	**x**	**x**	**x**
		Level 3	**3**	**3**	**3**	**3**	**3**
Criteria Two	Audience (demographic segmentation of individuals, categorized by their age, experience, or competence, for whom the content was created or selected)	**Level 1**	x	**x**	**x**	**x**	**x**
		Level 2	x	**x**	**2**	**x**	**x**
		Level 3	3	3	x	3	3
Criteria Three	Access & Diversity (the accessibility and delivery of educational materials to accommodate a wide range of learning preferences and abilities)	**Level 1**	**x**	x	x	x	x
		Level 2	x	**2**	**2**	**x**	**x**
		Level 3	3	**x**	**x**	**3**	**3**
Cri	User-friendliness	**Level 1**	x	**x**	**x**	**x**	**x**

	(the obstacles that hinder the ability to access and utilize the OER content.)	**Level 2**	x	**2**	**2**	**x**	**2**
		Level 3	3	**x**	**x**	**3**	**x**
Criteria Five	Subject Coverage (the extent to which a subject matter is thoroughly explored and discussed)	**Level 1**	x	**1**	**1**	**x**	**x**
		Level 2	2	**x**	**x**	**x**	**x**
		Level 3	x	**x**	**x**	**3**	**3**
Criteria Six	Search Functionality & Browsing (the search functionality (e.g. advanced, basic, truncation, etc.) of the OERR in order to assist users in efficiently locating the precise information they require, without the need for extensive browsing.)	**Level 1**	x	**x**	**x**	**x**	**x**
		Level 2	2	**2**	**2**	**2**	**2**
		Level 3	x	**x**	**x**	**x**	**x**
7 Criteria Seven	Media Type (the many forms of media, such as video, audio, text, and visual content, that are present in the OERR)	**Level 1**	x	**x**	**x**	**x**	**x**
		Level 2	x	**2**	**2**	**x**	**x**
		Level 3	3	**x**	**x**	**3**	**3**
Criteria Eight	Licensing & Permissions (Open Licensing and its condition)	**Level 1**	x	**x**	**x**	**x**	**x**
		Level 2	x	**x**	**x**	**x**	**x**
		Level 3	3	**3**	**3**	**3**	**3**
Total			**22**	**18**	**17**	**23**	**22**
Position			**2nd**	**3rd**	**4th**	**1st**	**2nd**

(Level 1=1 points, Level 2=2 points, Level 3=3 Points)

(Level 1: Low Quality, Level 2: Medium Quality, Level 3: Excellent Quality)

Based on the provided table, it is evident that the eGyankosh achieved 23 score out of a total of 24 points, which is a percentage higher than 99 %. The functioning of this repository for open educational resources is highly satisfactory. The first criterion received a perfect score of 3 out of 3 points by all OERR due to the fact that the OER undergo peer review and are hosted by esteemed higher education institution. The second criterion received a perfect score of 3 out of 3 points by all OERR except Swayam Prabha due to the fact that the OERR's well-structured materials are specifically designed for higher education academics. The third criterion received a score of 3 out of 3 points by all OERR except Vidya-mitra and Swayam Prabha due to the availability of Open Educational Resources (OER) that cater to a diverse range of learning styles and abilities. Since the OERR does not require any registration process, OERs are readily accessible without any cost. The fourth criterion achieved a perfect score of 3 out of 3 points by two OERR—SWAYAM and eGyanagar. The breadth of discipline is extensive, encompassing various sub-disciplines within each discipline. The fifth criterion achieved a perfect score of 3 out of 3 points by eGyankosh and ePG Pathshala. However, the sixth criterion received a score of 2 out of 3 by all OERR due to the absence of advanced search and user-friendly browsing features. The seventh criterion received a score of 3 out of 3 points by SWAYAM, ePG Pathshala and eGyankosh due to the adequate diversity of media types in OERR. Since the OER stored in this repository has an open license, it received a perfect score of 3 out of 3 for the ninth criterion by all OERR as open licenses are have been mentioned.

It is evident that eGyankosh secured the first position followed by ePGPathshala and SWAYAM as the second position then followed by Vidya-mitra as the third position.

Major Findings:

After analyzing the study found that:

- Most of the resources are submitted in eGyankosh belongs from 2010 to 2019 and where 1099 resources out of 1101 are submitted in 2017. Balouva in his paper discussed the open educational resources in Indian higher education and highlights the issues in connection with eGyankosh (Balouva,2020; Das,2014). Kanjilal in her case study discussed the development of eGyankosh as an OER repository and its licensing issues. She also discussed OER policy adoption of IGNOU (Kanjilal,2013).
- In e-PG Pathshala has the highest number of OERs related to Information Communication Technology for Libraries are available. The study also found that lowest percentage of OERs are on Media and Information Literacy. Anup Das also highlighted the initiatives of OER in e-PG Pathshala emphasizing its policy and national perspectives (Das,2014).
- In SWAYAM most of the courses are coordinated by IGNOU and most of the courses belong to 12 weeks' time duration.
- In case of Vidya-mitra total 40 OERs have been found in Library and Information Science where most of the OERs on the topic of Digital Library and lowest number of resources are on Library and Information Networking; Library and Information Services; Global

Information Infrastructure and Policy; ICT Application in Libraries and Marketing of LIS Services.

- It was found that total 04 (Four) project are run by Vidya-mitra, where most of the OERs are on Digital Library and it also reveals that lowest number of resources are on the project SP-DTH-NIOS-28: Higher Secondary School Education. The notable attribute of the study is that IGNOU and NIOS provide 50% of the total OERs, while the remaining 50% is provided by other organisations.
- The study showed that OERs are available in LIS discipline in Swayam Prabha and 35.91% resources for UG level learners.
- The study also revealed that OERs in LIS discipline in Swayam Prabha have been telecasted through three channels, e.g. Channel-17, Channel-5 and Channel-20, where maximum number of OERs are provided by Channel-17.
- The study highlighted that, OERs on various topics are available of LIS discipline in Swayam Prabha, e.g. library sources and services; Library, Information and Society; Information Sources; Library Automation, ICT fundamental; Information and Communication Technology; Organization of Knowledge: Library Classification; Library and Information Centre Management etc. The study also found that majority of Open Educational Resources (OERs) in the LIS discipline in Swayam Prabha are available in English language. In this context the researchers may mention the findings of Parekh and Others (Parekh et al.,2021). They depicted the role of OER available in Vidyamira, SWAYAM and Swayam Prabha and significance of OER in the higher education in Indian sub-continent.
- After assessment it is found that only three OERR achieved more than 85% score. The three main OERR are –SWAYAM, ePGPathshala and eGyankosh. Among these three OERR eGyankosh stood first securing 23 points out of 24 and rest of the two OERR—SWAYAM and ePGPathshala stood 2nd position securing 22 points. The ranking also reminds the findings of Sumana Bhattacharyya in 2022 where she wrote that eGyankosh is the oldest Online Learning Repository and SwayamPrabha was launched on September,2017 (Bhattacharyya,2022). As the oldest repository eGyankosh secured highest points.

Conclusions

The study proved that all the Open Educational Resources Repositories did not meet up all rubric and OERs available in the repositories meet up the requirements of students partially. The study revealed that a limited availability of Open Educational Resources (OERs) in the field of Library and Information Science (LIS) for educational purposes have been observed, with just a few exceptions. The study indicated that all the records in the LIS database are accessible in the English language and are provided at no charge. However, only Open Educational Resources (OERs) accessible in SWAYAM require registration without any charge. Open Educational Resources (OERs) for all Library and Information Science (LIS) modules based on the University

Grants Commission (UGC) curriculum are currently unavailable. The aforementioned five OERR or portals of open educational resources are freely available and can be accessed from any location at any time. These open educational resources are beneficial for students, academicians, and researchers. The development of open education resources in the LIS discipline should be adopted more and created more for the benefit of all the stakeholders of OERs. These materials will enhance the speed and effectiveness of teaching and learning activities in the field of Library and Information Science (LIS) and help to conduct remote learning. In short, it may be argued that Open Educational Resources (OERs) will serve as a supplement to course curriculum and in the age of Internet the role of OERR cannot be avoided.

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