IMPACT OF OPEN ACCESS EDUCATIONAL RESOURCES IN LIBRARY AND INFORMATION SCIENCE DOMAIN: A STUDY

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Abstract: *As we are now more conversant about "Open Access". It means free to use. The recent developments of Information Communication Technologies (ICT) and rapid growth of the Internet influenced the field of education. Open Access Resource generally is teaching, learning, and research materials in any format which might be audio, video, texts, and images etc. and these are freely available under Open License domain. This paper discusses the different segments of Open Access Resources briefly and also evaluates the impact of the available Open Access Resources platforms like e-PG Pathshala, NIOS, and IGNOU etc. in the Library and Information Science domain.*

Keywords: *Open Access, Open Educational Resources, e-PG Pathshala, NIOS, and IGNOU etc.*

1. Introduction

Open Access provides number resources which are freely available to students, teacher, authors, readers, and even communities in society. ICTs are dynamically changing our society. It allows an individual to communicate with others very easily. Open Access resource, more over literature refers to academic output which is available online and it has immediate accessibility and re-use rights. Open Access Resource includes scholarly articles, conference proceedings, monographs, and learning materials etc. Open access removes the obstacles of accessing, sharing and re-using the resources. It advances innovation; improves the educational materials; builds local and global community; and links with the global experts. Now Open Educational Resources (OERs) are making impact in education system by providing course materials,

modules, ebooks, Audio-Video lectures, and software etc. Emphatically, OER is evolved with the concept of Open and Distance Learning where study materials are made online available. Here in this paper, the aids of e-PG Pathshala, IGNOU and NIOS are brought out to show how these three gateways play key roles in LIS culture.

2. Review of Related Literature

Several works were done on open access and open access resources, for this particular literature study some of relevant articles have been discussed. For enhancing the open access resources and its discovery, **Anunobi (2018)** designed a study regarding Nigerian Universities' promotional strategies on open resources. He surveyed total 50 university librarians in Nigeria through mail and social networking sites. **Dimitar (2018)** discussed in his paper about the openness of scholarly communication in the higher education and new models of OA and OER should be sued at national level by Information Literacy Initiatives. Free Open Access Medical Education covers a wide range of free online resources and **Thurtle and others' (2017)** outset of their paper was to describe knowledge of the Emergency Medicine trainees on Free Open Access Medical Education and resources and how they use the different platforms of open resources. **Kumar (2016)** conducted a study on research scholars regarding the usage of e-journals and open access resources in the Guru Angad Dev Veterinary and Animal Sciences University Central Library. The findings of the study were assessed by the frequency of the usage, time spent in using the resources, problems they faced in accessing, and search techniques of accessing etc. In the context of Open Access Resources (OAR), **Velmurugan (2011)** investigated the importance and usefulness of OAR that users can solve their problems by using it.

3. Objective of the study

The prime objectives of the study are;

- To find out the different types of Open Access Resources (OAR).

- To find out the various Open Access Initiatives.

- To investigate the available course and educational study materials in online gateways.

- To find out the different features of the OAR platforms.

- To analyze the importance and how the online study materials can be effective for LIS.

- To find out the general and core modules of the platforms.

4. Scope and Methodology of the study

There are various types of open access resources like e-journals, e-contents, and e-study materials etc. for LIS. Open Access is highly effective in educational point view and research activities. It generally provides a rich literature by those academicians can access the resource spontaneously. This study is limited and covers three platforms that provide the open access resources (e-Study materials) for LIS. These are e-PG Pathshala (Initiative of INFLIBNET), e-Gyankosh (Initiative of Indira Gandhi National Open University), and National School of Open Schooling (NIOS). This paper also discusses how the above mentioned open access educational

resource platforms can help users. The data and other useful information was gathered from their respective websites and the outcomes of the study were carefully assessed.

5. Open Access

Open Access generally means giving permission to use anything freely and without cost. It was the early 21st century when the term "open access" was devised by the *Budapest Open Access*, the *Bethesda Statement on Open Access Publishing*, and the *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities*. These are the initiatives that accelerated the open access movement. ICT made a rapid expansion of Open Access. The main purpose of open access is to maximize the authors' works that can be accessed freely. In the early 1990s, the first ever free access journal appeared. Further, the huge number of open access journal is increased till now. Open Access Books, Open Access Journals, Open Study Materials are the main elements of Open Access Resources.

6. Different Open Access Resources

Open Access (OA) has become a global phenomenon and number of initiatives is taking this concept to the next level. Few scholarly subject guide websites provide e-resources freely, like DOAB (Directory of Open Access Books), Internet Archive, Project Gutenberg, Open Library, Free e-Books.net, and National Digital Library India, etc are one of the most important e-Book platforms where users can get resources easily. The recent development of Information Communication Technologies is making an impact on the educational field and with the help of it, the e-book is eying on various scopes of e-reading in upcoming years. Beyond other disciplines, LIS resources are also available in e-book form. The majority open access resources belong to e-journals. There is huge number of e-journals available on the web. DOAJ (Directory of Open Access Journals) plays a key role in providing e-journal, other open access journals like, Annals of Library and Information Science(ALIS), DESIDOC Journal of Library and Information Technology, Ariadne, International Journal of Information Dissemination and Technology, Webology, Sprouts: Working Papers on Information Systems and Journal of Digital Information etc. play significant role as well. Open Access ETDs (Electronic Thesis and Dissertations) are the digital scholarly or research works which are available freely. ShodhGanga (Inflibnet), Open Thesis, Open Access Thesis and Dissertations (OATD) are such examples of thesis or dissertation related resources. Publishers enormously increased their price tag on resource access and the above mentioned open access gateways give a rich number of online resources freely to fulfil the requirements of academicians. Some major open access initiatives are;

6.1 IFLA (International Federation of Library Associations and Institutions)

IFLA made the statement on freedom of access to information which is very important for the societal, cultural, educational, and moreover a nation. IFLA figured access issues and stated some facts on the control over scholarly communication with scientific quality, preservation and conservation of the research materials for long term use, prevention regarding censorship, user-friendly services, and flow of knowledge. IFLA also joined the open access movement by that they can provide free resources like DOAJ, COAR (Confederation of Open Access Repositories), and OASPA (Open Access Scholarly Publishing Association) etc.

6.2 SPARC

SPARC (Scholarly Publishing and Academic Resources Coalition) promotes the open research and educational resources. More than 200 members are associated with SPARC and they are using their resources for research and learning purposes. SPARC generally promotes policies that can be implemented for enhancing Open Access, Open Data, and Open Education at national as well as international level.

6.3 ACRL (The Association of College & Research Libraries, 1940)

It is basically for academic libraries and library workers. ACRL provides scholarly communication tool kits for creation, publication, dissemination and discovery of research works. Open scholarship, open access publication like journals, research works and open data repositories are one of the important contributions of ACRL. It promotes academic librarians to publish articles in open access journals. It is about the publishers that they implement their publishing agenda to make fast and free access of the resources.

7. Selected Open Access Educational Resource Gateways for LIS in India

Here are the three institutions that provide e-resources

7.1 e-PG Pathshala

Information and Library Network (INFLIBNET,1991) is taking major open access initiatives such as Shodhganga, Shodhgangotri, OJAS@INFLIBNET, and InfoPort etc. ePG Pathshala is a project by Ministry of Human Resource Development Education on e-contents for post graduate level. It covers almost 70 subjects across all disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences, linguistics and languages. It also avails the collaborative content creating where authors can contribute their writings.

7.2 e-Gyankosh

Indira Gandhi National Open University (IGNOU) has made a significant gesture in Higher Education (HE) system. IGNOU runs Open Distance Learning (ODL) since more than 2 decades successfully for the development of higher education in India. IGNOU initiated eGyanKosh for learning materials in 2005. It is one of the world's largest repositories containing more than 40,000 text materials and 2,000 video lectures. It covers well known universities' course curriculums. The study materials can now easily be accessed and downloaded without any cost by the registration in their respective web portal. The collection contains print and video-based contents.

7.3 NIOS

The National Institute of Open Schooling (NIOS) is an autonomous organisation, established under the National Policy on Education 1986 by the Ministry of Human Resource Development (MHRD), Government of India. NIOS provides different courses regarding Vocational; Life Enrichment; Secondary and Senior Secondary education, and Elementary Education. NIOS implemented the Open Educational Resources (OER) specifically for its courses. The

educational resources not only help the learners of Open and Distance Learning (ODL), but also help the LIS academicians for the development of their skills in various portions.

8. General information of the selected Open Access Resource Platforms

Table No. 1: General Information

Name	Parent Body	Website	Level	Schools	Rights Under
e-PG Pathshala	INFLIBNET	https://epgp.inflibnet.ac.in/	Post Graduate	7	CC-BY SA ©INFLIBNET
e-Gyankosh	IGNOU	http://egyankosh.ac.in/	Graduate/Post Graduate	22	©IGNOU
NIOS	MHRD	https://www.nios.ac.in/	Secondary/Senior Secondary/ Elementray	6	©NIOS

Table 1 shows the basic features and information of the three platforms. e-PG Pathshala is basically for postgraduate level, but the modules cover the whole subject area. It has 7 schools which include different courses. The reading materials are being distributed under Creative Commons Attribution- Share Alike. e-Gyankosh is national digital repository dealing with total 22 schools across the country. From storing and indexing to sharing; and rights all are maintained by IGNOU. The learning resources can also be accessed through IGNOU help. As mentioned above that NIOS is maintained by MHRD and it basically provides the course materials for the Secondary/Senior Secondary/Elementary level. It has 6 schools which are further divided into different lessons. It also provides its resources in two languages i.e. Hindi and English.

10. Information Resources in LIS Domain

As mentioned earlier, this particular paper focuses on the three Open Access Resource platforms that provide e-study materials for educational purposes. The major areas are discussed below.

10.1   Total no. of Papers, Modules and Coverage

Table No. 2: Total Papers, Modules and Coverage

Name	Total Papers	Total Modules/Blocks	Covers	Language
e-PG Pathshala	15	393	Graduate/Post Graduate	English
e-Gyankosh	9	353	Graduate/Post Graduate	English
NIOS	6	22	Senior Secondary	English/Hindi

As both e-PG Pathshala and e-Gyankosh covers the massive number of modules or blocks for bachelors and masters, while NIOS provide senior-level course materials that are organized in a systematic way and easy to understand. This study shows that most numbers of individual papers belong to e-PG Pathshala and followed by e-Gyankosh and NIOS. NIOS provide the materials in two mediums (English and Hindi). There is a quality in each and every module and can be used in any exam preparation, research works, and learning process.

10.2 Types of Resources and Learning

Table 3: Resources and Features

Name	E-Texts	Videos	Self-Assessment/Exercise		
			Availability	Mode	Types of Questions
e-PG Pathshala	Yes	Yes	Yes	Online	Multiple
e-Gyankosh	Yes	Yes	Yes	Offline	Short
NIOS	Yes	No	Yes	Offline	Short

The present learning system is not only based on traditional format but also it enlarged to the advanced level with Learning Management Systems (LMS). Resources are available on the web and gettable. As web 2.0 uplifted the access point of resources, as e-texts (pdf), audio, videos are available in the resource platforms. From the above table, it is clear that E-texts are available in all three organizations. One of the most important parts is self-assessment which is availed by all, learners can evaluate themselves better. Only online and multiple question assessment separates e-PG Pathshala from the others which have traditional exercise portions based on short question-answers available frequently at the end of learning part.

10.3 Core Papers

Table 4: Core Subject Area

Name of the Paper	No. of Units		
	e-PG Pathshala	e-Gyankosh	NIOS
Information and Knowledge Society	17	33	4
Knowledge Organisation: Classification and Cataloguing	52	34	3
Information Sources and Services	35	55	7
ICT in Libraries	38	31	NA
Management in Libraries and Information Centre	31	37	4

Information Storage and Retrieval	15	19	4
Informetrics and Scientometrics	19	11	NA
Different types of Libraries: Academic, Public, and Special Library	118	33	NA
Library use and users	31	4	4
Media and Information Literacy	27	4	NA
Research Methods	1	18	NA
Total	384	279	26

This table consists only the details about the core papers that are segmented into twelve subject categories. NIOS resources provide the basics of Library and Information Science and have mixed sections like ICT, Different types of Libraries in its different modules, though some of the core papers are not given as because of Senior level course materials. Simultaneously, e-PG Pathshala and e-Gyankosh represents rich number of modules regarding core papers. Knowledge Organization is fetched by the modules of Classification and Cataloguing papers. "Different Types of Libraries" draws the highest peak of modules than the others that have almost same number of modules approximately.

10.4 Resource Retrieval

Table 5: Retrieval of Resources

Name	Organization of Resources	Search/Browse Type				
		Paper	**Module**	**Author**	**Subject**	**Keyword**
e-PG Pathshala	Subject Wise	Yes	Yes	Yes	Yes	Yes
e-Gyankosh	Community	Yes	Yes	Yes	Yes	Yes
NIOS	Subject Wise	Yes	Yes	No	No	No

To use the e-resources as well as e-Study materials, browsing and searching techniques are very important for information retrieval. Complex search techniques cannot be a helpful aspect. This table shows how the three platforms are organized with their search criteria. NIOS and e-PG Pathshala are organized by main subjects and followed by disciplines. Whereas, e-Gyankosh is organized by Community and collection, maintained by Dspace. There are no such search criteria in NIOS for e-study materials, while e-Gyankosh and e-PG Pathshala have the all search techniques mentioned in the table and can be browsed frequently and easily. NIOS, e-PG Pathshala, and e-Gyankosh provide downloadable e-texts.

10.5 Literature Study and Glossary Terms

Here a collage of image is given, combined by five different images to only show how the resources are important for literature and further study. Resources of e-PG Pathshala and e-Gyankosh provide Bibliographical References (Monographs, Weblinks, and Scholarly articles etc) which can help learners to study in depth as well as in literature study. NIOS provides further reading aspects (Pic 2) by giving web references. Both e-PG Pathshala and e-Gyankosh give the glossary terms or keywords which can enhance the discoverability of the whole text (Pic 3 & 4). Lastly "Did you know?"(Pic 5) is featured in most of the texts provided by e-PG Pathshala and it helps users to know more about the terms that are very easily explained by the experts.

7. References   Pic 1, e-PG Pathshala

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Pic 2, NIOS

WEBSITES

http://catalog.loc.gov/help/titles.htm

http://www.ncbi.nlm.nih.gov

http://www.internettutorials.net/basic-search-techniques.asp

✓ **Glossary of technical terms in the module**   Pic 3, e-PG Pathshala

✓ **What is an API?**
✓ An API (Application Programming Interface) allows users to get a data feed directly into their own sites, providing continually updated, streaming data — text, images, video — for display.

15.8 KEYWORDS   Pic 4, IGNOU

Communication : Interpersonal communication between the management and employees as well as among the employees through various mechanisms.

E-Learning : E-Learning is learning or training that is delivered by electronic technology. It makes use of the Internet and World Wide Web, and intranet within the organisation. The aim is to enhance self-learning. It extends and supplements face-to-face learning rather than replace it."

Do you know?   Pic 5, e-PG Pathshala

✓ The term 'Web 2.0' was coined by Darcy DiNucci in 1999. But it was Tim O'Reilly and Dale Dougherty of O'Reilly Media popularized it by comparing the monotype web technologies to Web 1.0 to the interactive web technologies Web 2.0.

Illustration 1: Literature study and others

11. Conclusion

The Open Educational Resources (OER) generated from the past when a movement was emanated for distance learning. Open knowledge, open source, open sharing and collaboration, open data, open source etc. are such components of the term 'Open'. Here three institutions provide open course/ study materials which is truly helpful for distance learners, regular learners, research scholars, and teachers as well. These institutions avail 24x7 access to the resources and users are able to access from anywhere at any time. There are other benefits of

having these resources from different perspectives. As per example, academic examination preparation of academic orientation, job oriented examination and wide range of literature search for scholars etc. are the advantages of the resources which are created by subject experts from different universities and research institutes.

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