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A Study on the Implementation of Institutional Repositories in the College Libraries of Assam

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Abstract

The present study attempts to identify the present scenario of institutional repositories in the college libraries of Assam. For the purpose of collecting the primary data, a structured questionnaire was prepared for the respondents. The questionnaires were distributed to the targeted populations by personally or by e-mail and the same were received by personally or e-mail. The results of the study have showed that fifty-four colleges out of one hundred twenty-six surveyed college libraries have developed functional institutional repositories while twenty-three college libraries have started the process and forty-nine colleges don't have an institutional repositories. The successful implementation of institutional repositories depends on several factors. In the present study, it is found that lack of technical support and lack of high-speed internet facilities are the main barriers to implement institutional repositories in the college libraries of Assam.

Keywords: Institutional Repositories, Digital Libraries, College Libraries, Assam

1. Introduction

An institutional repository might include digital assets generated by academics, such as journals, magazine, conference proceedings, theses, photo, datasets, administrative documents, course notes, learning objects, etc. An institutional repository makes the intellectual output freely and openly available to an organization or many institutes or just one section. It includes the documents published or unpublished by the institution, faculty, research scholars, and students of an institution¹.

Raym Crow (2002) define the institutional repository as a digital archive of the intellectual product created by faculty, research staff and students of an institution and accessible to end users both within and outside of the institution. In other words, content stored in institutions is defined by institutions; scholar; cumulative and perpetual; and open and interoperable².

The creating and building institutional repositories are mainly based on hardware, software and staff requirements. Hardware and software are interconnected with each other and it is essential to set up any kind of system. There are several types of institutional repository software, but most commonly used software is Dspace, Greenstone, E-pints and Fedora. ShodhGanga: A reservoir of Indian Theses developed by INFLIBNET Centre, Gujarat is one of functional institutional repository in India.

The most important task of building institutional repository is to manage, preserve and maintain the digital assets, intellectual outputs and histories of academic institutions. According to Pickton and Barwick (2006) the main benefits of building institutional archives are: institutional repository increase visibility and prestige, helps to centralize and storage of all types of institutional output, support learning and teaching activities, assists in standardization of institutional records, enables to keep track of research performance and breaks down publisher's cost and permission barriers³.

Most of the institutional repository softwares are freely available on the internet, but there must be adequate computer infrastructure in order to implement institutional repository in the institutions. Major challenges to implement institutional repository in the institutions are financial problems, lack of support from authority, lack of it infrastructure, lack of technical support, lack of proper guidance, lack of high speed internet facility, lack of library building and preservation problems.

College education is an important part of higher education and is often associated with college, university, technical and adult education and is a high level of knowledge about its complexity and understanding. College libraries play a key role in developing the knowledge and skills of academic students in rural and urban communities. It meets the needs of students, teachers and researchers by providing a variety of printed or digital resources⁴.

Benefits of Institutional Repository

a) Individual benefits as author or creator⁵

- Increases the visibility of the intellectual output and acts as a marketing tool to reflect the research results of the researcher along with the department and the institution.
- The contents of the institutional repository are openly available on the web. As a result, the users can use the scholarly works without any fees which will raise the impact factor of the cited works. Therefore, it helps to identify the use of matrices of the particular papers.

- Provides specific links to navigate access to content in other archives by following the citation analysis mentioned in the contents.
- Stores and preserves the institution's original research works for the long term. Thus, gives assurance for the greater security of work with some specific URL links.
- Serves as an archiving centre for institutional research work.
- Institutional repositories provide comments and feedback options where authors are able to give their opinions with the readers. This option facilitates communication between the author and the user which gives pathways to improve the knowledge and the quality of work on the concerned subject.
- Maintains the researcher's profile, compiling a comprehensive list of institutional research results conducted over the years.
- Institutional repositories gives benefits to the researchers by providing prestige, status, and prizes to them for their rewarding research work and attract the different funding agencies for the support of acquiring funds for their research projects.

b) Benefits to the Institution⁵

- The repository can enhance the visibility and reputation of the institution through its scholarly research works. The Institutional repository can also be useful in commercial activities to attract highly qualified students, teachers or staff to join with the institution and generate grants from funding agencies.
- It collects stores and preserves all institutions research output including both published and unpublished works.
- In identifying the research assessment and quality assessment of the institutional intellectual output, institutional repositories are considered to be an important consideration.
- The contents of the institutional repository are easily searchable not even locally but globally. This open access facility of the research outcomes provides collaborative sharing of experiences between institutions.
- Maintains certain ratings of institutional records by compiling an Institutional CV and provides navigation links to access the full text of the articles.
- As a result of the establishment of the institutional repository the institutional libraries are free from the monopoly power of the publishers cost and access restrictions.
- No need of maintaining server or back up. Thus, cost effective for the libraries for giving a value added service without hampering on the limited budget.

c) Benefits to the User⁵

- Users can easily access the information content in the institutional repository by using a search engine.
- Users are not required to pay any fees for using digital content of an institutional repository and there is no subscription fees for the materials available in the repository.
- The information material on grey literature are not easily found through conventional means that includes pre-prints, patents, white papers, technical reports, project reports, documentations, manuals, working papers and discussion papers etc. But with the establishment of institutional repositories users can access these valuable resources anywhere.

d) Benefits to the society⁵

- Provides open access to institutional intellectual output at global context. Thus, gives access facility of world's research on different subject topics.

- An institutional repository can accommodate the research outputs without hampering the volume of research like no page limits, large- scale data-sets etc.
- Institutional repositories improve institutional content to reach the world's population at no cost.

2. Literature Review

Mupulanga (2013)⁶ carried out a study on digitising library resources and building digital repositories in the university of malawi libraries. The results indicated that the UNIMA Libraries are digitising library resources and building digital repositories though the pace is very slow. It is also found that the majority of the projects lack technical skills, especially running the systems in secure operating Linux-based system environments. Three of the five colleges were recognized as Greenstone, two were adopted DSpace and one adopted Procite depending on the training received and the source of funding.

Njagi and Namande (2018)⁷ have studied on the status of the implementation of institutional repositories in selected newly established universities in Kenya. It is found that all the university libraries investigated had functional institutional repositories. According to them, the librarians have faced many challenges in implementing IR and these were lack of resources, under staffing, reluctant of faculties submitting their research for upload, and low user awareness of existence and importance of institutional repository.

Kuri and Maranna O (2018)⁸ carried out a study on institutional repositories and its consequences for government college libraries which describes the challenges and remedies of building institutional repositories in the college libraries. Mahanta and Das (2019)¹⁰ studied on “Application of ICT in the college libraries of Assam.” The findings of the study have found that more than half of the libraries are partially automated while nearly half of the libraries are fully automated. Again, nearly half of the libraries are developing institutional repositories for the management of library resources. The study also tried to identify the problems associated with the implementation of ICT. Lack of IT skilled manpower to perform ICT related activities in the libraries is the main problem faced by the college libraries.

Mahanta (2020)⁹ carried out a study on usage of Information and Communication Technology in the Degree College Libraries of Assam. It is found that shows that the fifty-one of the college libraries have developed institutional repositories while twenty-six of the libraries are still in process and forty-nine of the libraries do not have institutional repository.

Mahanta (2020)¹⁰ carried out a study on Application and Utilization of ICT in the Degree College Libraries of Assam. The study identifies the availability of ICT infrastructure facilities, status of library automation, status of institutional repository and the barriers associated with the implementation of ICTs in the college libraries. It is found that 40.5% libraries have availed institutional repositories while 20.6% libraries are still in process and 38.9% libraries do not have institutional repository.

3. Objectives

The main aim of the study is to identify the present scenario of the institutional repositories in the college libraries of Assam. Therefore the following objectives are adopted by the investigator to fulfil the aim of the present study:

- To know the current status of institutional repositories in the college libraries of Assam;
- To find out the types of documents digitized by the college libraries in Assam;

- To know the record exist in institutional repositories in the college libraries of Assam; and
- To find out the challenges to develop institutional repositories in the college libraries of Assam.

4. Scope of the Study

The study covers the degree college libraries which are functioning in Assam. There are 298¹¹ degree colleges in Assam that offer basic education in arts, science and commerce at the graduate level. A total 189¹² colleges, out of 298 are provincialised before 2012. The present study covers the 189 general degree colleges which are provincialised before 2012. The colleges which are imparting other than general education are excluded from the present study.

5. Research Methodology

The present study is exclusively based on extensive field work undertaken by the author during January 2019 to September 2019. For solving the objectives, a structured questionnaire has prepared for collecting the primary data. Survey and interview method have used to collect the raw data from the respondents. The questionnaires were distributed to 189 colleges by personally or by e-mail, out of which 126 colleges have responded. The percentage of response rate is 66.7%. The data obtained from the filled up questionnaires is classified, analyzed, tabulated and logically interpreted. Well known statistical package SPSS has been used to find out the frequency, mean and standard deviation of the research objectives.

6. Result and Discussions

6.1 Present Status of Institutional Repositories in the College Libraries

a) Views on Institutional Repositories: Table 1 depicts that out of 126 colleges, 54 (42.8%) libraries have developed institutional repositories while 23 (18.3%) libraries are still in process and 49 (38.9%) of libraries do not have an institutional repository.

S.No	Institutional Repositories	Responses (N=126)	Percentage
1	Available	54	42.8
2	Still in process	23	18.3
3	Not available	49	38.9
Total		126	100.0

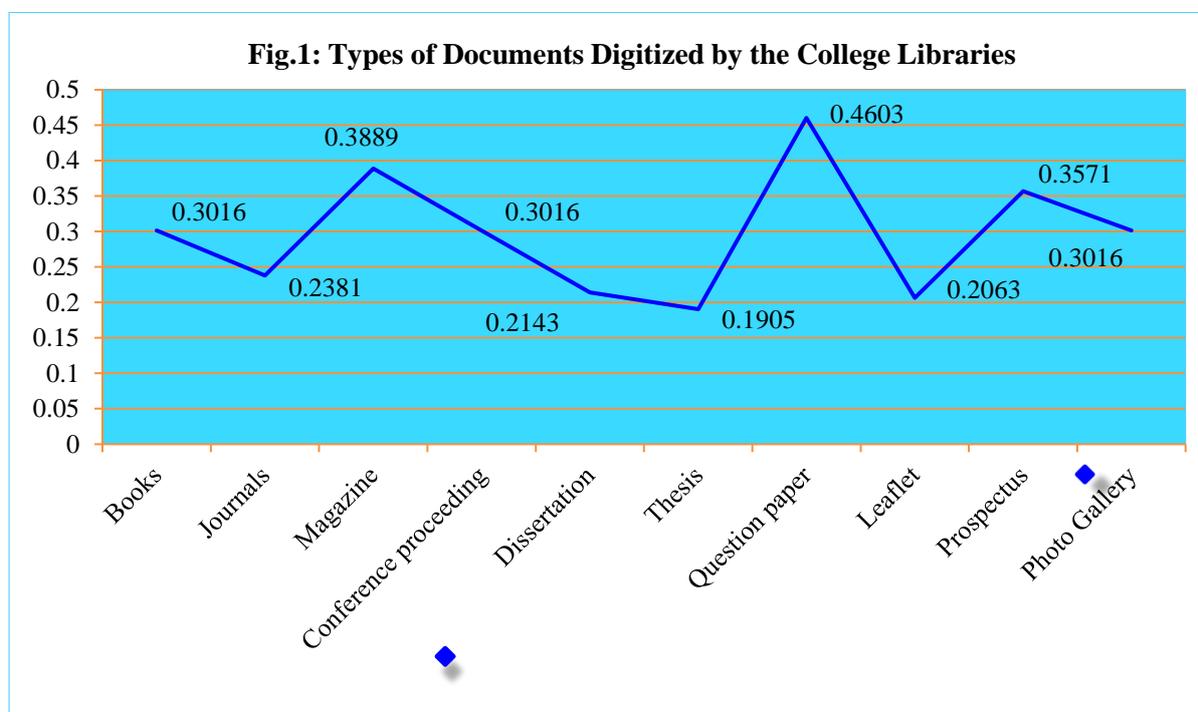
b) Repository Software Used by the Library: Table 2 depicts that among the 126 surveyed libraries, the highest 62 (49.2%) libraries have been using Dspace digital library software while 7 (5.6%) libraries have been using other local made digital library software and the least 2 (1.6%) libraries have been using Greenstone digital library software.

S.No	Description	Yes	%	No	%	Rank	Mean
1	Dspace	62	49.2	64	50.8	1	.4920
2	Greenstone	2	1.6	124	98.4	3	.0158
3	Other	7	5.6	119	94.4	2	.0555

6.2 Types of Documents Digitized by the College Libraries

Table 3 shows the types of documents digitized by the college libraries in Assam. It depicts that among the 126 surveyed libraries, the maximum 58 (46.0%) libraries have digitized question paper followed by 49 (38.9%) libraries have digitized magazine. Subsequently, 45 (35.7%) libraries have digitized prospectus; 38 (30.2%) of each college libraries have digitized books, conference proceeding and photo gallery; 30 (23.8%) libraries have digitized journals; 27 (21.4%) libraries have digitized dissertation; 26 (20.6%) libraries have digitized leaflet and least 24 (19.0%) libraries have digitized thesis. The document digitized by the libraries graphically presents in Figure 1.

S.No	Description	Yes	%	No	%	Rank	Mean
1	Books	38	30.2	88	69.8	4	.3016
2	Journals	30	23.8	96	76.2	5	.2381
3	Magazine	49	38.9	77	61.1	2	.3889
4	Conference Proceeding	38	30.2	88	69.8	4	.3016
5	Dissertation	27	21.4	99	78.6	6	.2143
6	Theses	24	19.0	102	81.0	8	.1905
7	Question Paper	58	46.0	68	54.0	1	.4603
8	Leaflet	26	20.6	100	79.4	7	.2063
9	Prospectus	45	35.7	81	64.3	3	.3571
10	Photo Gallery	38	30.2	88	69.8	4	.3016

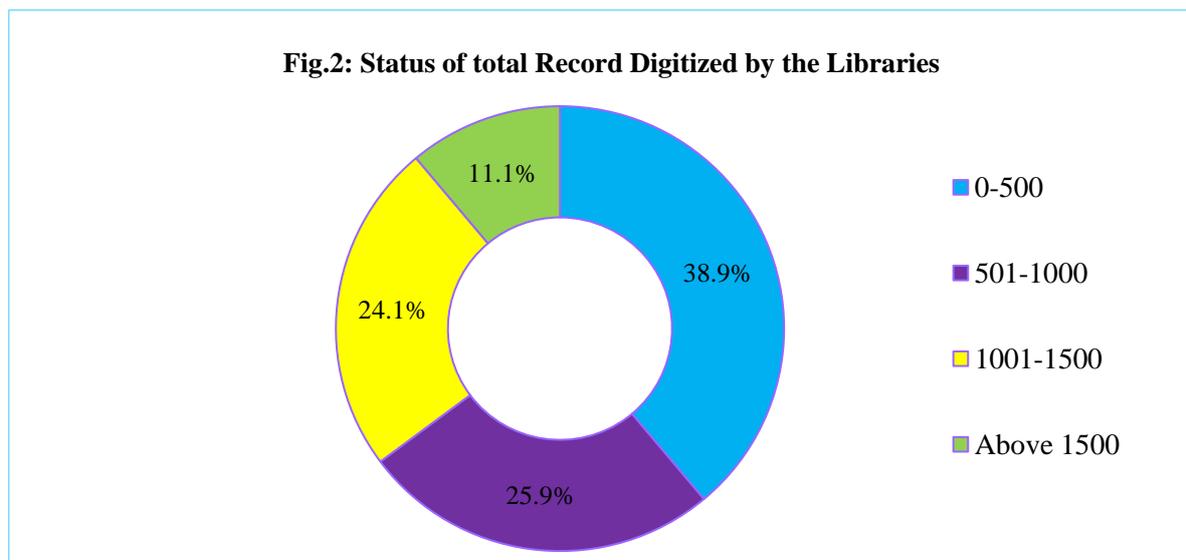


6.3 Status of Record Digitized by the College Libraries

Table 4 shows that the highest 21 (38.9%) of the college libraries have availed records ranges from 0-500 followed by 14 (25.9%) of the college libraries availed records ranges from 501-

1000 while 13 (24.1%) of the college libraries availed records ranges from 1001-1500 and the least 6 (11.1%) college libraries availed records ranges above 1500. The status of record digitized by the college libraries have been graphically presented in the Figure2.

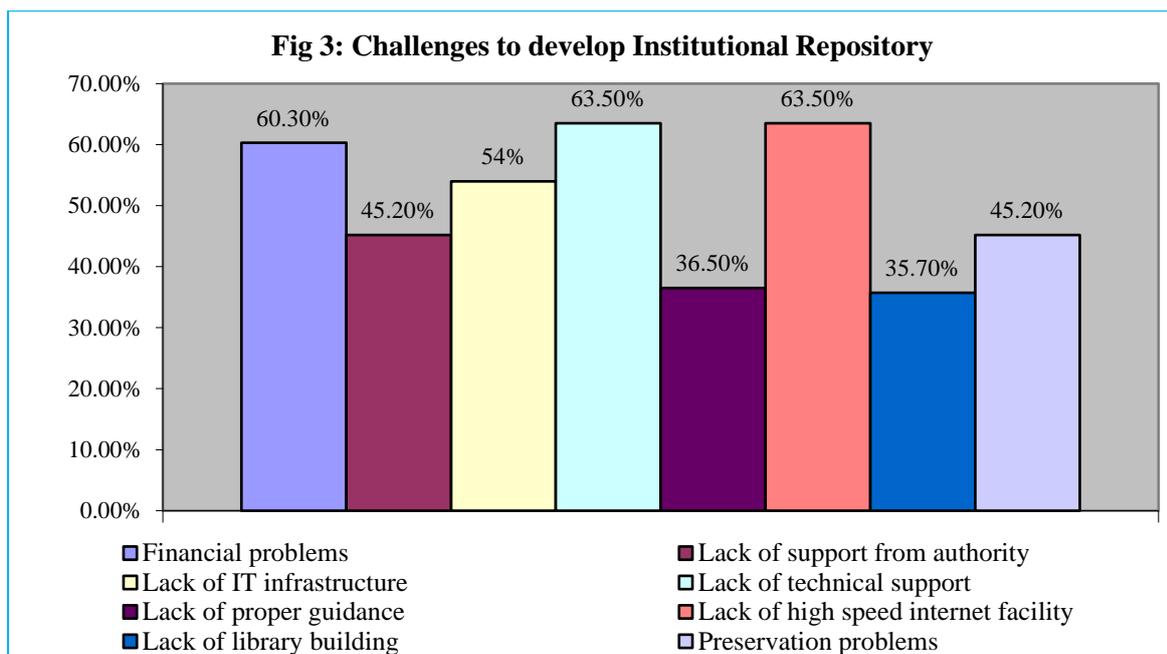
S.No	Ranges	Responses	%
1	0-500	21	38.9
2	501-1000	14	25.9
3	1001-1500	13	24.1
4	Above 1500	6	11.1



6.4 Challenges to Develop Institutional Repositories in the College Libraries

Table 5 depicts that out of 126 colleges, the highest 80 (63.5%) libraries have mentioned that they could not implement institutional repositories in their libraries due to lack of technical support and lack of high speed internet facility respectively followed by financial problems as 76 (60.3%), lack of it infrastructure as 68 (54.0%), lack of support from authority and preservation problems as 57 (45.2), lack of proper guidance as 46 (36.5%) and least response have arrived at lack of library building as 45 (35.7%) responded.

S.No	Description	Yes	%	No	%	Mean	Rank	Std. Dv
1	Financial problems	76	60.3	50	39.7	.6032	2	.49119
2	Lack of support from authority	57	45.2	69	54.8	.4524	4	.49971
3	Lack of IT infrastructure	68	54.0	58	46.0	.5397	3	.50041
4	Lack of technical support	80	63.5	46	36.5	.6349	1	.48337
5	Lack of proper guidance	46	36.5	80	63.5	.3651	5	.48337
6	Lack of high speed internet facility	80	63.5	46	36.5	.6349	1	.48337
7	Lack of library building	45	35.7	81	64.3	.3571	6	.48107
8	Preservation problems	57	45.2	69	54.8	.4524	4	.49971



6. Suggesions and Reccomendations

The suggestions and recommendations based on the findings of the study are put forwarded-

- The college authority should give emphasise on development of proper ICT infrastructure in their college libraries.
- The hardware and software facility in the library should be regularly upgraded.
- The library authority should prepare a separate budget for procurement of online e-resources like databases, books, journals, magazine and other relevant resources.
- The annual budget of the library should be increased to overcome the financial problems to implement the institutional repository.
- The libraries should arrange awareness programme on ICT based services for the users.

8. Conclusion

The growth of computer technology, digital technology and telecommunication has changed the scenario of libraries. An institutional repository is an archive for collecting, preserving and disseminating digital resources of the intellectual output of an institution. The institutional repositories have tremendously influenced on library users and satisfying scholarly communication needs. The findings of the study show that nearly half of the college libraries have been developed institutional repositories. Though it seems to be low, the initiative of developing institutional repositories is going on. The Government of Assam and RUSA has been providing financial assistance to the college for building institutional repositories. The study also tried to find out the challenges to implement institutional repositories in the college libraries of Assam. Successful implementation of institutional repositories depends on several factors. In the present study, major challenges to implement institutional repository in the institutions are financial problems, lack of support from authority, lack of it infrastructure, lack of technical support, lack of proper guidance, lack of high speed internet facility, lack of library building and preservation problems.

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