Planning and Implementation of Institutional Repositories in University Libraries – A Study in Andhra Pradesh

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Abstract - *Institutional Repositories (IR) are developed primarily for collecting, preserving and disseminating the intellectual output of an institution. This knowledge assists in sharing and learning of an institution. For the successful set up of an Institutional Repository, strategic planning is required with a predetermined goal and scope as well. This paper is a case study of setting up a digital Institutional Repository at university libraries in Andhra Pradesh. The basic objective of this paper is to provide a roadmap for setting up an institutional repository in an university libraries. The paper also discusses the role of librarian and users (faculty and Research Scholars) in setting up a digital Institutional Repository, problems faced and major milestones to cover in the venture.*

Keywords: Institutional Repositories, University libraries, digital libraries.

Introduction

Over the past few years libraries have witnessed tremendous development in the field of information and communication technology. This resulted in the changed trends in publication of the information as well as in the storage of information. Many of the information sources such as journals, books, monographs etc., which were being published in a printed form has been shifted to electronic publishing and also the authors are preferring this new medium of publication, which has resulted in an exponential growth of scholarly literature on the web on the other.

Although it is now possible to have free access to significant amount of literature on the web, it is not available freely. This may be due to many reasons like the non-availability of all high impact journals on the web freely, at the same time the researcher preference to publish in high impact (peer reviewed) journals, the impediment of subscription price to have access to journals by individuals etc. Here comes the importance of open access or Institutional repository, where responsibility is more on the individuals and institutions which are in contrast to the earlier model of where dissemination is through final publishing channel.

Definitions of Institutional Repositories

Johnson serves: "a digital archive of the intellectual product created by the faculty, research staff, and students of an institution accessible to end users both within and outside of the institution, with few if any barriers to access".

Raym Crow: "Digital collections capturing and preserving the intellectual output of a single or Multi University. Community provides a compelling response to two strategic issues facing academic institutions".

Review of Literature

Joshi and Manjunath (2012)described the meaning and definition of open access. They reported that the increase in the access to scholarly materials without any effect on Library Budget is the major impact of Open Access on Libraries. This further helps in the increase of research output given by the parent institution and therefore the value of organization also improves. Many related studies have reflected that material available on OA journals is cited more than the research material available on non-OA journal.

Morrais&Borrell-Damian(2018)A study conducted by the European University Association (EUA), which received 338 responses from universities and higher education institutions across 39 European countries ,shows that over 50% of surveyed institutions stated that they had implemented an open access policy for research publications, and 21% reported begin in the process of developing and implementing an open access policy over the next year the study also showed that 77% of universities had their own repository and about 12% participated in a shared repository. However, the results are straightforward with respect to the procedures implemented to open up research data only 19% of the surveyed firms have an institutional research data management system, and nearly seven out of ten firms have no guidelines for open access to research

Objectives

- To know the awareness and utilization of Institutional Repositories by the users
- To know the status of capture and preservation of research and related contents in digital format in university libraries
- To study about the planning and design of Institutional Repositories in university libraries
- To examine the accessibility to Institutional research output and self-archiving
- To examine the problems involved in the implementation of Institutional repositories in university libraries.

Methodology

The present study is intended to know the status of institutional repositories and the librarians in different University Libraries in Andhra Pradesh. The study expanded to the users also. The target population is faculty members and research scholars in 8 universities. Survey method is adopted to collect data from university libraries as well as users.

Analysis and Interpretation

Table 1. Selected Universities in Andhra Pradesh

The data received from the librarians are presented in this chapter as part- 1.Sample institutions of the present study. The librarians of university libraries were asked to mention the year of establishment of their respective universities, their responses are shown in the table.

S.No	Universities Name	Year of Establishment
1.	Sri Venkateswara University, Tirupati.	1954
2.	Acharya N. G. Ranga Agricultural University, Tirupati.	1964
3.	AcharyaNagarjuna University, Guntur.	1976
4.	Sri Padmavathi Women's University, Tirupati.	1983
5.	NTR Heath University, Vijayawada.	1986
6.	Sri Venkateswara Institute of Medical Sciences, Tirupati.	1993
7.	Dravidian University, Kuppam.	1997
8.	Sri Venkateswara Veterinary University, Tirupati.	2005

Sri Venkateswara University is the oldest university compared to other universities in Andhra Pradesh which was established in 1954. Sri Venkateswara Veterinary University was established in 2005.

Table-2 Gender wise distribution

It indicates the gender wise distribution of data. Table-2 shows the distribution of users according to gender. Composition of populations for a study is crucial to determine or identify an issue or solution. The perception of the male and female may not be widely correlated or widely differ cited. But, co-relational acceptance leads universal agreement in sample study. Hence, representations of equals of all genders in research study in more valid.

S.No.	Gender	Frequency	Percentage
a. 1	Male	647	64.31
2	Female	359	35.69
	Total	**1006**	**100.00**

It is evident from table-2 that 647 (64.31%) are male respondents and the reaming 359(35.69%) are female. Hence It can be concluded that majority of the respondents that 647 (64.31%) are male respondents.

Table-3 Gender wise visit the library

S.No.	Visit the library	Male	Female	Total
1	Yes	621(61.73%)	341(33.89%)	962(95.63)
2	No	26(2.58%)	18(1.78%),	44(4.37)
	Total	**647(64.31)**	**359(35.69)**	**1006(100%)**

Table-3 reveals that majority 962(95.63%) of the respondents using library 621(61.73%) are male and 341(33.89%), the remaining 44(4.37%) of the respondents 26(2.58%) male and 18(1.78%), are not using the library. It may be concluded that majority of 962(95.63%) of the respondents are using library.

Table-4 Frequency of library visit

A question has been put to the respondents to know the frequency of library visit. The responses given by them are shown in table-4.

S.No.	Response	Frequency	Percentage
1	Everyday	342	33.99
2	once a week	234	23.26
3	approximately every 2 weeks	298	29.62
4	once a month	132	13.12
	Total	**1006**	**100**

It is clear from the table-4 shows that majority of the respondents 342(33.99%) replied that they visit library everyday followed by once in a week 234(23.26%) of the respondents visiting the library, 298(29.62%) of them approximately every 2 weeks and the remaining respondents 132(13.12%) once in a month. Hence It can be concluded that majority of the respondents 342(33.99%) replied that they visit library everyday followed by once in a week 234(23.26%) of the respondents visiting the library.
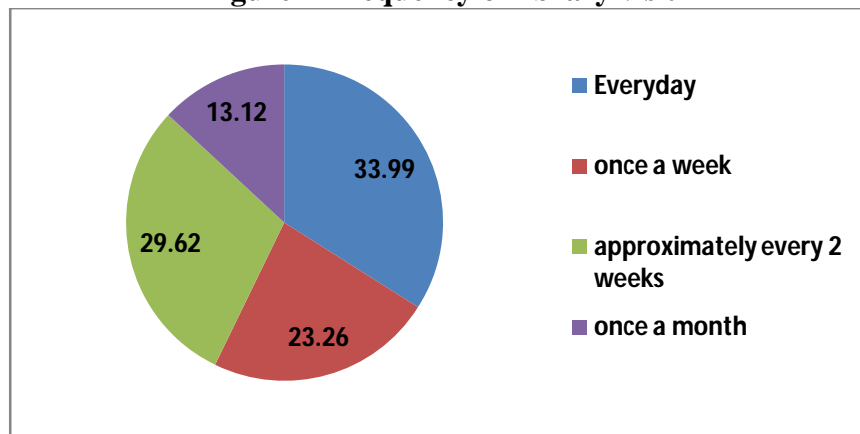
Figure-1 Frequency of library visit

Table-5 Purpose of using digital library

A digital library is a distributed electronic collection that covers virtually all fields of human Endeavour to serve a defined community. The basic idea of digital library is to provide universal access to digitized information throughout the world. Digital libraries play a significant role in engineering libraries as they are mostly tuned for the promotion of academic excellence and research. Therefore e-information is a key element for any research and development work. Digital resources usually consist of e-books, online journals, online databases, institutional repository, OPAC and Web OPAC, websites, e-images, e-news, e-thesis and e-dissertation, CD-ROMs, DVD etc. Therefore, the resources which are available online in digital formats are called digital resources. The digital resources can be used by users through online access.

S.No.	Purpose	Male	Female	Total
1	Communication	261(25.94%)	81(8.05%)	342(33.99%)
2	support teaching/learning activities	136(13.52%)	98(9.74%)	234(23.26%)
3	research activities	176(17.49%)	122(12.13%)	298(29.62%)
4	career development	74(7.36%)	58(5.76%)	132(13.12%)
	Total	**647(64.31)**	**359(35.69)**	**1006**(100%)

The following table shows that purpose of using digital library gender wise in university libraries. The replies are given below table.

While comparing the male and female 261(25.94%) male and 81(8.05%) female using digital library for communication purpose, followed by 176(17.49%) male and 122(13.13%) female research activities, 136(13.52%) male and 98(9.74%) female support teaching / learning activities and remaining male 74(7.36%) and female 58(5.76%) using digital library for career development.

The analysis shows that majority of male respondents using digital library for communication purpose compared to female respondents.

Chi-square distribution

The significance difference in opinion of the frequently/male/female library users was analyzed using the Pearson chi-square test and the results were presented in the following table.

Table-5.1a: x^2 test on opinion on Purpose of using digital library gender wise

Chi-square	Df	Chi-square table value
32.877	3	3.417

From the above table, it is evident that the calculated value 32.877 is higher than the table value 3.417at 0.05 level of significance for 3degree of freedom. Hence, it can be conclude that there is significant difference among the samples in their responses on frequency of using Purpose of using digital library gender wise.

Table-6 Awareness of the Institutional Repositories

The responses according to their awareness of the Institutional Repositories are shown in table-6

S.No.	Response	Frequency	Percentage
1	Yes	876	86.87
2	No	130	13.13
	Total	**1006**	**100**

Table-6 indicated that most of the respondents (86.87%) are aware of Institutional Repositories, the remaining (13.13%) of the respondents are not aware of Institutional Repositories. It may be concluded that most of the respondents are aware of Institutional Repositories.

Table-7 Knowledge about the Institutional Repositories

A question has been put to the users how to know about Institutional Repositories.   The replies given by them are shown in the table-7

S.No.	Response	Faculty Members	Research scholar	Total
1	From library professionals	96(9.54%)	206(20.48%)	302(30.02%)
2	From seminars & symposiums	104(10.34%)	92(9.14%)	196(19.48%)
3	From friends / colleagues	80(7.95%)	207(20.57%)	287(28.53%)
4	From journals	58(5.76%)	163(16.20%)	221(21.96%)
	Total	**338(33.59%)**	**668(66.41%)**	**1006(100%)**

The following table shows to know the knowledge about the institutional repositories. The replies are given in the table-7.

The majority research scholars to know the institutional repositories from library professionals and friends and colleagues, faculty members know from seminars and symposiums. The analysis shows that majority of research scholars and faculty members to know about institutional repositories from library professionals.

Chi-square distribution

The significance difference in opinion of the frequently/faculty members/research scholars library users was analyzed using the Pearson chi-square test and the results were presented in the following table.

Table-4.2.8.1a: x^2 test on opinion on Knowledge about the Institutional Repositories

CHI-SQUARE	DF	CHI-SQUARE TABLE VALUE
43.294	3	2.13

From the above table, it is evident that the calculated value 56.465 is higher than the table value 3.342at 0.05 level of significance for 3degree of freedom. Hence, it can be conclude that there is significant difference among the samples in their responses on frequency of using Knowledge about the Institutional Repositories status wise.

Table-8 Access point to use of Institutional Repositories.

A question was put to the respondents to know their access point to use of IR's the responses are shown in table-8

S.No.	Access point	Frequency	Percentage
1	my personal home page links directly to the site	235	23.35
2	I follow a link to the site from another page on the web	192	19.08
3	It is bookmarked on my web browser as a favourite site	120	11.92
4	I search for it by name through a web search engine	363	36.08
5	I type in the URL to go directly to the site	96	9.53
	Total	**1006**	**100**

It is evident from the table-8 majority 636(36.08%) of the respondents search for it by name through a web search engine, followed by 235(23.35%) personal home page links directly to the site, follow a link to the site from another page on the web 12(19.08%), 120(11.92%) it is book marked on my web browser as a favorites site. The remaining 96(9.53%) are type in the URL to go directly to the site. Majority of the respondents are access IR's through a web search engine.

Table-9 Problems facing in contributing to an Institutional Repository

A question has been put to the respondents to know the problems in contributing to institutional repositories. The respondents are given to them in table-9

S.No.	Problems	Faculty Members	Research scholar	Total
1	Lack of proper management of Intellectual property Rights	140(3.91%)	343(34.09%)	483(48.01%)
2	Lack of Quality control mechanism	118(11.73%)	186(18.48%)	304(30.21%)
3	Lack of Feedback mechanism	42(4.17%)	61(6.06%)	103(10.24%)
4	Lack of Awareness among scholars	26(2.58%)	52(5.16%)	78(7.75%)
5	Fears of technology	12(1.19%)	26(2.58%)	38(3.78%)
	Total	**338(33.59%)**	**668(66.41%)**	**1006(100%)**

The following table shows that problem facing in contributing to an IR by the research scholars and faculty members.

While comparing faculty and research scholars it is noted that 343 (34.09%) research scholars and 140 (13.91%) faculty members facing lack of proper management of intellectual property rights problem and 186 (18.48%) and 118 (11.73%) lack of quality control mechanism, followed by 61 (6.06%) and 42 (4.17%) lack of feedback mechanism. The remaining 52 (5.16%) research scholars and 26 (2.85%) faculty members facing lack of awareness among scholars and 26 (2.58%) and 12 (3.55%) fears of technology. Hence may be concluded that majority research scholars and faculty members facing lack of proper management of intellectual property rights problem.

Findings

- Majority of the respondents that 647 (64.31%) are male respondents.
- Majority of the respondents 962(95.63%) are using library.
- Majority 962(95.63%) of the respondents using library 621(61.73%) are male and 341(33.89%).
- Majority of male respondents using digital library for communication purpose compared to female respondents.
- Most of the respondents (86.87%) are aware of Institutional Repositories.
- Majority 636(36.08%) of the respondents search for it by name through a web search engine.
- Majority research scholars and faculty members facing lack of proper management of intellectual property rights problem.

Conclusion

Collected data from the librarians, faculty members and research scholars as the contributors and users of IRs in university libraries in Andhra Pradesh. The respondents are male and female with composition. University libraries provide LAN facility and digital library. The majority of the respondents are satisfied with LAN. The majority university libraries providing institutional repositories and there uploading theses and dissertations post prints and preprints periodicals mainly. The librarians are having 1 to 3 year's experience in using of institutional repository. Library budget is an important factor for the libraries, state government provides finance. The first questionnaire was aimed to judge the approach of librarians to institutional repositories and preferences of content creation, awareness of institutional repositories and using of IRs. The users while retrieving information through e-resource. From the reply of maximum number of respondents it is clear that no any existence of online/digital faculty for the sharing information in selected universities. About majority respondents expressed their willing to share their publications. Thus there is need to create digital repository which will provide full text publications to the faculty and researchers. In final conclusion it is essential to create user friendly repository which will acts as milestone between information and use and it will assist to improve academic quality of organization under study.

Suggestions

The Universities are spending more money to acquire information for the research and development by paying to outside organization. Institutional repository is one which is no cost or low cost mechanism to have more insignias knowledge and information. The Institutional repository of an institution of both learning and earning organization in the present networking environment. All universities are essentially institute to their own IR for the benefit of their own students and faculty and outside. All the faculty should be contributed their research and knowledge to exabit their potentiality.

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