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LIS Professionals Attitude Towards the Use and Implementation of Institutional Repositories in India: A Survey

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ABSTRACT

An institutional repository for all types of users and professionals to the rate of awareness of IR's among the peoples. It also walks around the interest of LIS Professionals in creation and implementation of IR's in their respective Organizations with this it also elucidates on problems behind the development of IR's. This paper lightens all areas of IR's of India. Which; present valuable information about activities and awareness of IR's among the LIS professionals in India.

Keywords : LIS Professionals, Attitude, Institutional repositories, India.

INTRODUCTION

Today institutions are deploying increasingly complex educational storage and delivery systems ranging from course management systems, personalized portals, student portfolio systems, streaming media services, and Web content management systems. Substantial investments in integrated library systems have already been made, using the underlying IT infrastructure to manage these services. These institutional systems are integrated to various degrees but do not yet provide the type of seamless integration that can leverage new approaches to teaching, research, and administration. Furthermore, the ability to capture and creatively use rich media objects in the present environment lags behind our ability to capture and use data & still images. Finally, there is a lacking in using a structured approach both technological and procedural to capture and preserve the intellectual output of the campus community for future access.

Development of Institutional Repositories has largely taken place in Universities. Some referred articles describe the activities of Universities and Institutional Repositories adopting institutions; any organization can adopt the concept. Repositories provide services to faculty, researchers, and administrators who want to archive research, historic and creative materials. The open access and open archive movement. The need changes in scholarly communication to remove libraries to access and the increasing dearness that universities and Research Institutions are losing valuable digital and Print materials have begun driving the establishment of Institutional Repositories.

CONCEPTUAL FRAMEWORK OF INDIAN IR'S

Institutional repositories provide organizations with an opportunity to create a central location that collects and preserves their digital output. The opportunity to share and distribute this output is hugely significant and would serve to benefit the repository's contributing authors and the institution itself. If part of the purpose of an institutional repository is to make its contents freely available, then the global community also has something to be gained. When an institution collects

and shares its output, the members of the institution benefit while also making the world academically richer by allowing scholarly communication to flow more freely. But saddest part of this is that various Institutes have creating these digital repositories for testing or trial purpose only and could not maintain the pace streamline those many of them are closed and not being updated regularly Dspace at INLIBNET, on IR of the center, which was responsible for the creating the vibration in the use of open source software for digital library and for the many other important issues, is also not able to host its own Institutional Repository on regular basis.

The concept of IR in India is ePrints@IISc (*http:// eprints.iisc.ernet.in*) India's first interoperable, open-access institutional repository to have been setup. The Director of the Institute, Prof. Govardhan Mehta, had officially launched ePrints@IISc service in Sept 2002. Since its launch, the repository has been growing steadily in terms of a number of records it holds. Till today, the repository holds more than 7000 research publications of the institute (Francis Jayakanth and et.al, 2013).

OBJECTIVES

- The study for find out the use of institutional repositories by faculties, research scholars, and students.
- To identify the need and purpose of Institutional Repositories in academic libraries.
- To explore the real challenges and problems have faced by LIS professionals in develop and implementation of institutional repositories.
- To know awareness and usage of digital repositories resources, e-databases and scholarly information of national and international academic organizations by the library users of in their region.
- To discover the experiences that Universities, Academic, Public, Special institutions challenges face during Institutional repositories planning and implementation and
- To identify and suggest the appropriate Institutional repositories tools and techniques which are applicable for

effective and future perspectives of Institutional repositories in India.

SCOPE AND LIMITATION

The study consists of awareness and attitude of LIS professionals in India especially in academic sector. To measures the effective use and implementation of institutional repositories in their respective institution/organization.

METHODOLOGY

This study is mainly based on the primary data collected through survey method an online questionnaire was employed to collect the required data among the LIS professional across the India. A detailed questionnaire was prepared for this purpose and in order to enhance the validity and reliability of the questionnaire, expertise in the field of library science.

LITERATURE REVIEW

A review literature is essential to identify the work in a subject selected for investigation. A comprehensive literature of study is made here, collecting data from the recent research intellectual output of the related to our study investigation.

Anuradha, K T (2005) found that creating and defining metadata for acquired different types of documents, standardization of metadata values and removal of duplicate records while compiling database is one of the major challenge for the LIS professionals in design and development of institutional repositories.

Dhanavandan, S and Tamizhchelvan, M. (2013) examine that more than 95% of the faculty members have awareness of institutional repositories and open access publishing of their work apart from this more than 22% of the respondents of their study agree to Workshop, seminar, orientation programs are more effective media to create awareness in academic environment.

Fernandez, L. (2006) conducted interviews with information professionals to examine the responsibility in creation and development of institutional repositories in India. She said that background of participants, Institutional culture, software selection, nature of funding; submission policies are

most effective factors in participation of academician in design and development of institutional repositories. Furthermore in her study she mentioned respondent awareness of types of materials covers in the institutional repositories.

Muluken W. Alemayehu (2010) Investigate researchers' attitudes and their contribution to the Institutional repository a survey was conducted by taking 43 researchers as a sample study at the University of Oslo. The findings indicated that researchers were found to have a low-level awareness of the Institutional repository but were interested in contributing their research work to the university institutional repository and have a positive attitude towards providing free access to scholarly research results of the University of Oslo.

Turid Hed Land (2008) Find out the user behavior regarding institutional archives, researchers' main concern was where to publish (in which journal) and in what type of publications (book chapters, journals) not mainly in open access format. However, the factors depending on the social environment were seen as relevant for publishing practices. Getting merits for a future career as a researcher was also important.

Manjunatha K and K. Thandavamoorthy (2011). Analyses explored that researchers' attitude towards the deposit to open access institutional repositories as a model of scholarly publishing. The respondents were selected through stratified random sampling from a population of 1966 researchers from universities in Karnataka State with a response rate of 86.82%. The study reveals that the majority of the science, technology and medicine scholars are aware of and positive towards deposit institutional repositories and arts. However, the humanities and social science researchers are found to have a low-level awareness of the institutional repository but were interested in contributing their research work to the University Institutional Repository and have a positive attitude towards providing free access to scholarly research results of their University. (Sambhu Nath Halder and Suvra Chandra) examines the user-aware of institutional repositories in Jadavpur University. The main objective of this study is to investigate the awareness of

Institutional Repository (IR) in an academic institution also describes the potential role of institutional repositories and its easiness and simplicity of use are attracting more patrons in the use of institutional repositories. Entirely this paper is based on a critical study, which measures the utility of institutional repositories in users' point of view.

DATA ANALYSIS

The data has been analyzed with the help of following parameters:

Table 1. Age and Gender wise distributions of respondents

Age	Age wise	%	Gender		
<25	32	10.0%	Male	187	60.9%
26-30	69	24.0%			
31-35	62	20.0%			
36-40	57	18.0%	Female	120	39.1%
41-50	49	16.0%			
50>	38	12.0%			
Total	307	100%	Total	307	100.0%

Table 1 is combined contents of age and gender wise responses it envisages that there are 69 (24.0%) of the respondents belongs to age group go 26-30 year, followed by 62 (20.0%) between 31-35, 57(18.0%), 49 (16.0%) between 36-40, 38 (12.0%) above 50> years and lost is 32 (10.0%) from below <25 in the context of the all 187 (61.9%) responses came from male and 120 (39.1%) female group they only have the lion share of awareness about development and implementation of IR's in India.
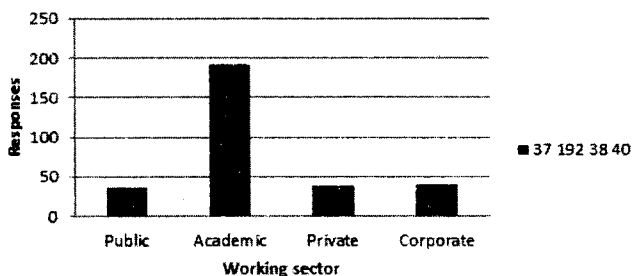
The Qualification and suitable Designation are two faces of same professionalism. The combined table 2 analyzing respondent professional profile and its background, in those 81 (26.4%) respondents are working as assistant librarian various academic, public, special and corporate sectors, followed by 67(21.8%) as librarian, 34(11.1%) as chief librarian and 42(13.7%) for others(Scientists, Associates, Technical Asst., etc.,) are working in various academic, public and private organization

and also table review that professional qualification of respondents in that highest 216 (70.4%) have Post-Graduation of MA/M.Sc/Associateship Library science, 60 (19.5%) are got Doctoral degrees.

Table 2. Designation and Qualification distributions respondents

Designation of Respondents	Responses	%	Qualification		
Professor	2	0.7%	Doctoral	60	19.5%
Associate Professor	6	2.0%			
Assistant Professor	8	2.6%			
Chief Librarian	34	11.1%	Post-Graduation	216	70.4%
Librarian	67	21.8%			
Deputy Librarian	8	2.6%			
Assistant Librarian	81	26.4%	Graduation	20	6.5%
Research Scholar	18	5.9%			
Library Assistant	32	10.4%			
Professional Assistant	9	2.9%	Diploma	11	3.6%
Other	42	13.7%			
Total	**307**	**100.0%**	**Total**	**307**	**100%**

Fig.1: Distribution of working sector of respondents

A hustle sector of work environment also may be creating when management /organizations act in a good manner

Table 3. Distribution of respondent awareness and use of IR

Respondent awareness of IR	Responses	%	Need of IR	Responses	%
IR is a library Services	93	25.0%	To setup effective library services	155	43.3%
IR is an Open access database	82	21.0%	To utilizing library source	96	26.8%
IR is an Institutional database	144	37.0%	To show personal identity	34	9.5%
IR is an Open Archive	68	17.0%	To utilizing innovative tools	73	20.4%
Total	387	100%	Total	358	100%

designed to make a professional friendly environment. Other than they tried to quit by imposing unwarranted discipline, reducing hours, cutting wages or transferring the complaining professionals to distant work sectors. Table-3 discloses the working environment of LIS Professional, there are more than 192 (62.5%) of professional are working in academic sectors such as School, colleges and university libraries, followed by number of 40 (13.0%), in working corporate sector like MNC companies, in Public sector 38 (12.4%) and 37 (12.1%) professionals are working public sector. But the compilation of professional groups the academic environment working people have more awareness IR's and its use.

The table 3 analyze the difference of professional thoughts IR's and its use. The 144 (37.0%) of professional believes that IR's is an institutional database, 93 (25%) thinking IR's is one of the library services and followed by 82 (21.0%) and 68 (17.0) professionals to know IR is Open access database and it is an Open Archive to access electronic sources and also we ask to professionals why need institutional repositories for present time, they given different options about that, 155 (43.3%) professionals are feels the application of IR's is one of the best tools for set-up effective library services, 96 (26.8%) for utilizing source of library and also interesting results comes here 34 (9.5%) professionals feel, IR's is one the way to getting personals identity.

Table 4. Distribution of respondent awareness of IR Software's and Platform

IR Software's	Responses	%	IR Platform	Freq	%
DSpce	178	58.0%	Windows	124	40.0%
ePrints	72	23.5%			
Greenstone	29	9.4%			
ETD-lib	19	6.2%	Linux	183	60.0%
Archivematica	9	2.9%			
Total	**307**	**100%**	**Total**	**307**	**100%**

The father of 'free software movement' 'Richard Stallman' (1970) define "free software" is a matter of liberty, not price to understand the concept, you should think of "free" as in "free

speech," not as in ``free beer." The table-5 find out professional awareness of IR's software's and its applications such as system software's, applications software's, operating systems and mainly suitable platform installation of available well know and user friendly open software's like DSpace, ePrints, Greenstone (GSDL), ETD-lib (for theses and dissertations) and Archivematica. The review that 178 (58.0%) professionals feel DSpace is good software for implementation of IR in their working intuition or organizations than followed by 72 (23.5%) are like ePrints, Greenstone 29 (9.4%) and ETD-lib 19 (6.2%). With also 183 (60.0%) professional prefer Linux is the best Platform for IR and also 124 (40.0%) is for Windows Platform.

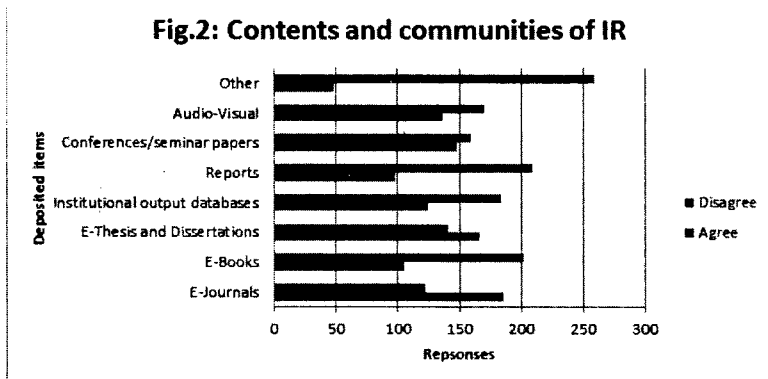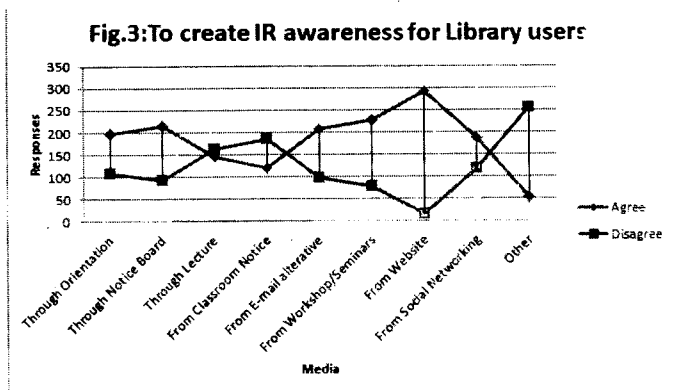### Fig.2: Contents and communities of IR

Figure 2 analysis that requirement contents and communities for creation of IR's, in this regards 185 (60.3%) professionals agree with e-journals is suitable source item to dispute to IR's, followed by 166 (54.1%) is for E-Thesis and Dissertations, 148 (48.2%) is for Conferences/ seminar papers and 124 (40.4%) is to helpfully for to create their own institution database from with use institutional out of professional and scholars. But most of academic IR's focusing to collect all type resources such as journals, books, conferences, seminar proceedings, Thesis and Dissertations, students project reports, PPT, etc., available resources disputing in their IR's database and host for use.

Fig.3:To create IR awareness for Library users

Now information available in various forms in free of cost, for that some Government, research institutes are giving a lot of financial support to the preservation of rare collection as recent science innovation. But due some professional as well as organizational remedies still also most of users and professionals also not aware about the availabilities of resources, in this regards a question rise how do overcome this problem of users for researching their required information from the available database or channels. The table 7 reviews that how the LIS professionals.

Create aware of their user to the utilization of available resources. In that 292 (95.1%) professionals. creating user awareness through from website, blogs, with using innovative applications, followed by 228(74.3%) are thought Workshop/ Seminars, 215(70.0%) through notice board, 208(67.8%) are using E-mail facilities for share recent happenings of the library and198 (64.5%) professional are busy with create user awareness with help of through orientation for the users.

The forms document formats such as PDF, Word, Image, HTML/XML, and Doc are most usable and suitable for formats preservation and dissemination of information. The table-8findsprofessionalcompatibility with documents formats, 300(97.7%) professionals feels electronic or documents to be coveted to PDF, then only better to upload records to IR's database, because of FDFis user-friendly and covenant format for all type of user and appearance of the source and followed

Table 5. Distribution of channels and document formats

Search channels	Responses		Document formats	Responses		Total
	Agree	Disagree		Agree	Disagree	
Library OPAC	172(56.0%)	135(44.4)	PDF	300(97.7%)	7(2.3%)	307(100%)
Library websites	118(38.4%)	189(61.6%)	Image	172(56.0%)	135(44.0%)	307(100%)
Institutional repository	158(51.5%)	149(48.5%)	HTML/XML	94(30.6%)	213(69.4%)	307(100%)
Subject portal/Gateways/Blogs	124(40.4%)	183(59.6%)	Word/Doc	169(55.1%)	138(45.0%)	307(100%)
Online database/ Directories	180(58.6%)	127(41.4%)	Audio-Visual	184(59.9%)	123(40.1%)	307(100%)
Other	00(00.0%)	307(100.0%)	Other	18(5.9%)	289(94.1%)	307(100%)
Total	752(244.9%)	1090(355.1%)	Total	937(156.2%)	905(150.8%)	1842(100%)

by 184(59.93%)Audio-Visual, 172(56.0%) Image and 169(55.1%) Word/Doc is suitable formats to upload records to IR's. Also table 8, is highlights to user attitudes to prefer search strategies to getting required information, observation this study found more than 172(56.0%) users are search information with help Library OPAC, followed by 180(58.6%) are Online database/ Directories, 158(51.5%) Institutional repository, 124(40.4%) Subject portal/ Getaways/blogs and118 (38.4%) user are aware of viewing library websites.

Table 6. Distributions Frequency of use and mode service IR's accessibility

Mode of IR Service	Responses	%	Frequency of Use	Responses	%
Publicly accessible	112	36.5%	Daily	36	11.7%
Restricted based	52	16.9%	Twice in week	82	26.7%
Pass word based	86	28.0%	Weekly	78	25.4%
Demand based	57	18.6%	Monthly	57	18.6%
Any other	0	0.0%	Only when we need	54	17.6%
Total	**307**	**100%**	**Total**	**307**	**100%**

The library acts as mediator to transformation of events, achievements, cultural heritages information, store and preserve and transfer one present to the future generation, in present digital era the role and style of library routine operation are getting change from traditional to digital. Table-9indicating user and professionals attitudes towards knowledge organization and usability of library resources, table views that 112(36.5%) professionals are thinking IR's resources to reach to all, so they feels IR's resources better to keep in publicly accessible, out that 86(28.0%) professional express IR's facilitate give based on password based, 57 (18.6%) are Demand based and 52 (16.9%) are told IR's database to be restricted from the others and also table review frequency of usage of library resources by the users, in this regards 82 (26.7%) users are using Twice in week, followed by 78 (25.4%) are once in a Week, 57(18.6%), 54 (17.6%) users are using IR database once in month and sometimes when they have need.

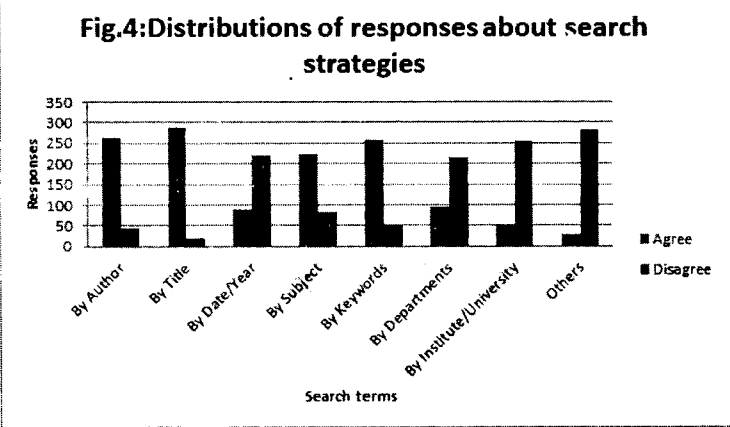Fig.4:Distributions of responses about search strategies

Fig. 4 : analysis of user attitudes to finding information from the database, in point view 288 (93.8%) library users prefer to title for searching information, 264(86.0%) are searched by author, 258(84.0%) are choose suitable keywords for searching and 224(73.0%) users would like search by Subject.

Table 7. Distribution of Metadata
standard and IR's handle number

Metadata standards	Responses	%	Handle Responses Number		%
Yes	187	60.9%	Yes	119	38.1%
No	71	23.1%	No	168	55.7%
Other	49	16.0%	Other	20	6.2%
Total	307	100%	Total	307	100%

Metadata is structured data which describes the characteristics of a resource. It shares many similar characteristics to the cataloging that takes place in libraries, museums, and archives. A metadata record consists of a number of pre-defined elements representing specific attributes of a resource, and each element can have one or more values. Below is an example of a simple metadata record. Metadata standard registries have great potential to enhance usability and reusability of metadata schemas. Application profiles are a key concept for Dublin Core and have a crucial role in promoting

reuse of metadata schemas. The table-11 review that, number 187(60.9%) of professionals are aware of metadata standards such as DDI-Data Documentation Initiative, EAD- Encoded Archival Description, CDWA-Categories for Description of Works of Arts, VRA Core-Visual Resources Association, DC-Darwin Code, ONIX-Online Information Exchange, CWM-Common Warehouse Metamodel, IEEELOM-Learn info Object metadata, CSDGM- Content Standard for Digital Geospatial Metadata, E-GMS- e-Government Metadata Standard, GILS-Global Information Locator Service, TEX-Text Encoding Initiative, NISO MIX-Z39.87 Data dictionary, INDECS-Index Content Model, MARK- Machine Readable Cataloging, MEST-Metadata Encoding and Transmission Standard, MODS- Metadata Object Description Schema, XOBIS XML- Organic Bibliographic Information Schema, PBCore-Public Broadcasters & Associated Communities, MPEG-7-Multimedia Content Description Interface, MEI-Music Encoding Initiative, DOI-Digital Object Identifier etc. But difficult follow and handle number for IR's.

Fig.5:Distribution of Challenges of creation and maintains of IR's
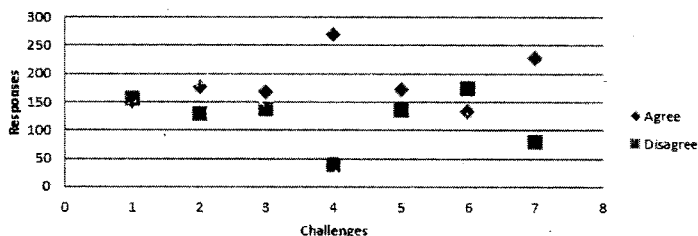
Fig. 5 describes that more than 268(87.3%) agrees with the Copyright issues is a major problem of implementation of IR's it means LIS professionals should have awareness of copyright issues regarding selection of contents for their repositories he/she has to get permission from the author of the documents. Followed by 228(74.3%) Staffing issue, 172(56.0%) Communicating with faculty, 169(55.1%) adequate financial support, 152(49.5%) professionals agree that content selection to their repositories.

FINDINGS

The survey discloses some of the major findings they are.

1. In the table 4 more than 144(37%) believes that IR's is an institutional database and 155(43.3%) professionals show their interest towards setting up an institutional repository to initiate the effective library services.

2. More than 178 (58%) professionals feels that DSpace open software is good to design and implement the institutional repositories as shown in table.5

3. The figure.2 shows that 185(60.3%) e-journals are the good resources in design the communities in institutional repositories.

4. Throughout the survey 292 (95.1%) professionals shows their agree in promoting the awareness of IR's through the websites, blogs by acquiring new innovative applications(Fig.3)

5. There are 300(97.7%) professional feels that PDF(portable document format) is suitable file format in design and implementation of an institutional repositories process(table.8)

6. More than 112(36.5%) peoples table.9 expressed that institutional repository service should be in open access.

7. The Fig.4 shows that 288(93.8%) library users search their information by title.

8. The study reveals that 187(60.9%) of professionals are aware of metadata standards and content organization (table.11)

9. In Fig. 5 268(87.3%) peoples expressed that copyright is the major issues in develop and implementation of institutional repositories in their organization followed by 228 (74.3%) says that adequate staff problems are also an important issue in the development of IR's.

SUGGESTIONS

Some of the important views came out in the form of responses at the time of the survey they are briefly discussed here. Through the creation and maintain of IR's an institute can

get good responses and appearance in society and also by promoting to develop the IR's among the academic sector we can easily find out the duplication of research. One of the important obstacle of IR's is no proper communication medium between the LIS professionals and their patrons(faculty) regarding IR's it means by having interaction with the faculties LIS professionals can create an awareness about IR's among their institutional members. Effective utilization and adoption of technology in the field and boundary of LIS education getting an important position in rapid growing society hence by giving effective training program, skill development program and policy we can enhance the capacity of LIS professionals in present society. The government as well-funded institutes like: INFLIBNET, UGC, ICSSR etc; should provide the necessary requirements in the form of financial support to develop the IR's for academic university and colleges then only the concept of IR's will get progress properly. Lastly, the most important suggestion is LIS professionals should conduct the National, international and regional level seminar, conference, workshops and so on regarding the creation and development of IR's India through this kind of activities LIS professionals will gain good knowledge in the implementation of IR's in respective their place.

CONCLUSION

Knowledge explosion in the form of print and non-print in the present society creating a lot of confusions and copyright problems in the matter of publishing the information in the context of this problem IR's playing a vital role in acquiring, preserve and dissemination of information to its end users. IR's is a wonderful concept which begins by the National Science foundation in the mid-1990's in the USA the purpose was this project to collect, preserve and disseminate the digital sources across the world. In the same way, every academic, research institutes should try to acquire the intellectual property of their active members and preserve the acquired information in a well-organized manner and disseminate the information through the proper channel then only the information will be getting right values. Future work could focus on the LIS professional interest, problems and perspectives and what are the expectations of LIS

professionals concern with the implication and maintenance of institutional repositories in their respective organizations similarly they could do the study of the faculties views on the donation of their intellectual property to IR's. This study will also helpful to know the management or institutional interest, support to create an institutional repository in their institute. It leads to explore the support and interest of the government and funded organization in the promotion of awareness about the IR's in India.

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