

IDENTIFYING THE POSSIBLE CONTENTS FOR UNIVERSITY REPOSITORIES OF BANGLADESH

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Abstract

Selection of contents is the greatest challenge for running institutional repositories. To develop a guideline for establishing institutional repositories, a survey was conducted among the selected university libraries in Bangladesh. To understand the attitude of the library users and the heads of those libraries, some issues related to contents were raised through questionnaires. Journal article, doctoral/master theses, research reports, teaching-materials, conference papers, annual reports and preprints were found to be the most prospective items for institutional repositories of university libraries of Bangladesh.

Introduction

Institutional repositories (IRs) have been recognized as an important service in the libraries for around the last two decades. It has been evolving as an important means to disseminate scholarly works easily and quickly (Mamtora, Yang and Singh, 2015). IRs make available the electronic version of scholars' works (Harnad, 2005). With the advent of the internet, these electronic documents can be made available immediately to the researchers of the world. Remarkable improvement of storage media, electronic devices, and information technology attracted libraries to move towards digital preservation of their institutional scholarly works. Many universities and research institutions are taking benefit of this opportunity by establishing IRs (Mamtora, Yang and Singh, 2015). Gradually, it is becoming an important service of the libraries of universities and research organizations. The growth of IRs in

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Bangladesh is slow. Compare to other countries even in Asia, the development of IRs in Bangladesh is low (Elahi and Mezbah-ul-Islam, 2018). In this paper, an initiative was taken to develop a guideline for establishing IRs in Bangladesh through understanding the existing practices in university libraries of Bangladesh. Choosing contents was found to be an important issue for establishing IRs. This paper provides an overview of the current content preservation attitude of the content collectors, creators, and their users.

Objective

The main objective of this paper is to identify the local contents or materials suitable for collection for the institutional repositories of Bangladesh.

Literature Review

The literature of IRs usually covers the content issue. Because it is an important factor for the success of IRs. Many researchers opined for developing guidelines to determine the contents types. Genoni (2004) discussed the standard collection management practices. He mentioned that there had been suggestions to control and regulate the content as no standards was available for this purpose. He also mentioned that standardization of content of institutional repositories was not desirable being institutional repositories were established to meet the local needs and accordingly their own content should be developed. However, it is a, as mentioned by the Genoni (2004), responsibility of the library staff members to ensure “best practice” in selecting the contents for institutional repositories. Additionally, Genoni (2004) stated that the Scholarly Publishing and Academic Research Coalition (SPARC), recommended a broad view of contents for the institutional repositories. SPARC suggested collecting unpublished items and gray literature in addition to published materials. However, some specific materials they recommended were: preprints, working papers, theses and dissertations, research and technical reports, conference proceedings, departmental and research center newsletters and bulletins, papers in support of grant applications, status reports to funding agencies, committee reports and memoranda, statistical reports, technical documentation, and surveys (Genoni, 2004). Genoni (2004) also found that there were efforts for controlling and regulating contents for institutional repositories. Several Australian reports suggested to control contents (Genoni, 2004).

Lynch (2003), one of the leading proponents of institutional repositories suggested to keep an open mind on the content recruitment for the institutional repositories. However, he proposed the libraries to collect digital documents of events like symposia, performances, lectures, etc. (Lynch, 2003).

An academic survey of UK higher education institutions, done by a team of researchers at Loughborough University, collected the views on the deposit of teaching and learning materials in the institutional repository (Bates, Loddington, Manuel and Oppenheim, 2006). The survey found a high response rate to nine content types mentioned. The highest responses were found for 'photos, images, diagrams or movies', i.e., 84.0%. The lowest responses were to 'exemplars in methods of learner management or administration', i.e., 34.4%. The other seven categories were text-based resources lecture notes or examples (71.2%), links to external sites (subject or technology) (68.4%), case studies or papers, highlighting an exemplary teaching practice (e.g. methodologies, examples of materials, assessment methods) for several subject areas (68.1%), exemplars for a particular method of innovative teaching and learning (64.9%), collections of teaching materials in a package with specific learning outcomes stated for collection - equivalent to a unit of learning (59.8%), Computer Aided Learning (CAL) software (subject based) (53.0%), and reading lists (subject based) (55.6%).

Ezema (2013) examined the management of local content materials for open access institutional repositories in Nigeria. It was observed that all the 72 respondents had irresistible agreement (100 percent) that theses and dissertations were relevant to local content materials that should be published in institutional repositories. This was followed by staff publications with 98.6 percent and faculty/departmental journals with 97.2%. Other local contents materials which had high acceptance rates from the respondents were conference proceedings (95.8%), inaugural lectures (91.7%), conference/seminar papers (90.2%), institutional newsletters (84.7%), senate publications (81.9%), public lectures (81.9%) and vice chancellors' addresses with 80.5%. It was also observable that faculty/departmental reports, ceremonial reports, students' news magazines and course contents scored above 50 percent each and therefore, these were good candidates for publication in institutional repositories. Materials that scored below 50 percent and therefore, seem not to be relevant for publication in institutional repositories were local newspapers (48.6 percent), lecture notes (34.7 percent), students' term papers (33.3 percent), examination question papers (29.2 percent) and lastly students' industrial attachment reports with 26.4 percent.

Sawant (2012) surveyed 14 institutional repositories of India. She found that the highest number of contents was journal articles which were 10,467. Over 3,900 master's theses and doctoral theses were available in these repositories. She did not find the documents like audiovisual material, teaching material such as files, images,

videos, PowerPoint presentations prepared by faculty/lecturers, assignments, papers or projects prepared by students, maps, research papers and journals. However, many users responded that they were willing to deposit symposium/conference/seminar papers (61.08%, i.e., 113 respondents), scholarly books (17.84%), reading lists (16.22%), audio/video materials such as speeches (15.68%) and book chapters (15.14%), and PhD dissertation (1 respondent only). Two more respondents gave different opinions. One mentioned that patents granted, trade information, annual reports, specialized information, and news clippings, etc. whereas another mentioned program source code as an item to be incorporated in institutional repositories.

Shoeb (2010) suggested 12 categories of contents for a private university library serving in Bangladesh. In his view, the possible contents for the university would be: pre-prints/post-prints publications; bibliographic references; books and book chapters; conference and workshop papers; theses and dissertations; unpublished reports and working papers; datasets; learning objects; multimedia and audio-visual materials; software; patents; and special items (depends on collection policy and technical ability).

Elahi and Mezbah-ul Islam (2018) found six specific content types in 12 repositories in Bangladesh. Journal articles and theses and dissertations were found to be equally available in those repositories. Both of those were 23% of the total documents of the institutional repositories. Next position was taken by unpublished reports and working papers which was 20%. Conference papers were only 11%, book chapters or sections were 8%, multimedia and audio-visual materials 7%. Documents of other categories were 8%.

Data Collection

A survey was conducted to understand the views of two main stockholders on institutional repositories in mid-2016. Selected university librarians or library heads and some of their users were asked about the prospective contents for their own university repositories. Twelve, six public and six private, universities were selected for the survey. Twelve universities received 20 to 30 questionnaires for distributing to their own users. A total of 310 questionnaire sets were distributed among the users of those universities. Each of the library head received one more separate questionnaire to provide their own opinion. Finally, eleven university libraries participated. One private university did not return the questionnaires. Hence, eleven library heads provided their own opinions on contents and a total of 251 users lastly responded, i.e., the response rate from users is around 84%. Collected data are presented here through the tables. Large tables are divided for the convenience of readers' understanding.

Findings

The opinions of the library heads and the library users were taken about the contents of IRs. They were asked what types of contents they prefer to preserve in IRs. Twenty-three types of resources were mentioned to choose and additionally, they were requested to suggest any other resources. Respondents were free to choose as many as they liked.

It was observed that there were similarities in some extent between the library heads' and library users' choices of contents for the institutional repositories. Table-1 and Table-2 presents the positions of library heads regarding IR contents.

Table 1: Library Heads' Opinion on Contents for IRs (over 45%)

Contents	Library Heads	
	Count	Total N %
Doctoral/Master theses	11	100.00%
Annual report	8	72.70%
Conference papers/proceedings/reports	8	72.70%
News clippings	7	63.60%
Journal articles	6	54.50%
Research reports	6	54.50%
Preprints	5	45.50%
Teaching materials	5	45.50%
Total	11	100.00%

Library heads had hundred percent support for one item and that was 'Doctoral/Master theses'. The second highest support (72.7%) was given by the library heads to two items, i.e., 'Annual Reports' and 'Conference Proceedings'. Slightly over fifty percent of the library heads supported 'Journal Articles' as IR content. The position of News clippings was found in a higher position than the journal articles, research reports, and preprints. News clippings had a fourth position and the journal articles placed the fifth position. Then the position of research report was found. Preprints and Teaching materials both placed seventh. All other materials received support lower than 45% from the library heads which are shown in Table-2.

Table 2: Library Heads' Opinion on Contents for IRs (45% or less)

Contents	Library Heads	
	Count	Total N %
Assignments, papers, and projects prepared by students	4	36.40%
Convocation address	4	36.40%
Course catalogs	4	36.40%
Books and its chapters	3	27.30%
Proposals	3	27.30%
Course outlines	2	18.20%
Data sets	2	18.20%
Manuscripts	2	18.20%
Photographs	2	18.20%
Profiles of faculty members/administrative staff/scientists, etc	2	18.20%
Committee meeting documents	1	9.10%
Interview transcripts	1	9.10%
Maps	1	9.10%
Models	1	9.10%
Others	1	9.10%
Simulations	0	0.00%
Total	11	100.00%

Table-3 and Table-4 show the opinions of library users on IR contents. Table-3 shows the items which received over 45% opinion from the library users and other items, i.e., opinions not exceeded 45%, are shown in Table-4. Users had the highest support for journal articles (81%). Library users also have high support (78.9%) for theses and dissertations which is second in users' opinion ranking. Library users' third most support went to 'Books and their chapters' (72.9%), fourth-most support to 'Research reports' (72.5%), fifth to 'Assignments, papers, and projects prepared by students' (63.6%), sixth to 'Teaching materials' (58.7%), seventh to Conference proceedings/reports (57.9%), eighth to Annual reports (50.2%). Support for all other materials by the library users was under forty percent, i.e., Table-4 items.

Table 3: Library Users' Opinion on Contents for IRs (over 45%)

Contents	Library Users	
	Count	Total N %
Journal articles	200	81.00%
Doctoral/Master theses	195	78.90%
Books and its chapters	180	72.90%
Research reports	179	72.50%
Assignments, papers, and projects prepared by students	157	63.60%
Teaching materials	145	58.70%
Conference papers/proceedings/reports	143	57.90%
Annual report	124	50.20%
Total	247	100.00%

Table 4: Library Users' Opinion on Contents for IRs (45% or less)

Contents	Library Users	
	Count	Total N %
Course outlines	86	34.80%
News clippings	81	32.80%
Photographs	71	28.70%
Convocation address	68	27.50%
Course catalogs	68	27.50%
Profiles of faculty members/administrative staff/scientists, etc	68	27.50%
Preprints	66	26.70%
Proposals	62	25.10%
Data sets	61	24.70%
Manuscripts	58	23.50%
Maps	42	17.00%
Interview transcripts	40	16.20%
Simulations	28	11.30%
Committee meeting documents	26	10.50%
Models	19	7.70%
Others	1	0.40%
Total	247	100.00%

Table-5 and Table-6 present the opinions of library heads and the library users respectively on ‘collection/submission of contents due to institutional bindings’ which termed here as ‘mandatory submission of documents’. Librarians were asked about collection (Question 2.a of Appendix-I) of their users’ works and users were asked about their contribution or submission of their creations (Question 2.b of Appendix-I) due to institutional request. All eleven library heads responded to this question and only 54.5% of them strongly agreed and 27.3% agreed (moderately) to make submission mandatory by the institutions. Only two library heads either disagreed or keep him/her in a neutral position.

Table 5: Library Heads’ opinion on mandatory submission

		Count	Table Total N %
Making mandatory submission of documents	Strongly Agree	6	54.5%
	Agree	3	27.3%
	Neutral	1	9.1%
	Disagree	1	9.1%
	Total	11	100.0%

Two hundred and thirty-five library users gave opinion on ‘submission of contents’ into the institutional repositories. The maximum number (38.3%) of library users kept them in the neutral position. Though the lowest number (14.0%) of users disagreed, it cannot be ignored being it is near to strongly agree (16.6%). Summing up of ‘Neutral’ and ‘Disagree’ stands 123 (52.3%) and ‘Strongly Agree’ and ‘Agree’ stands 112 (47.7%). Over 50% of library users were not agreed with the wave of mandatory submission.

Table 6: Library Users’ opinion on mandatory submission

		Count	Table Total N %
Making mandatory submission of documents	Strongly Agree	39	16.6%
	Agree	73	31.1%
	Neutral	90	38.3%
	Disagree	33	14.0%
	Total	235	100.0%

Discussion

Institutional Repositories are the reservoir of scholarly content generated in the institutions or by the people of the institution. Being, the contents are exclusively institutionally focused, it may give a conceptual position that these items can be collected easily. But it is not that much easy. Most of the IRs worldwide have been

suffering from low submission of content than the expected numbers. IRs receive students' works easily as submission of theses/dissertations into their respective institutional repositories is mandatory for the students. Most of the IRs are failing to get faculty works which possibly the most important and expected items for the institutional repositories. Possibly, this was the main reason the library heads mostly wanted mandatory submission provision. But, users' opinions cannot be ignored. Maximum users did not agree with the proposal.

Opinion taken on the content types would be useful for the IR managers of Bangladesh. Specially, the content types chosen by the library users can ease the content collection. The result can serve as a guide for IR managers. The success of IR depends on the participation of the users. Due to that their opinion should get high importance. Hence, journal article, doctoral/master theses, books, book chapters, research reports, student assignments, teaching materials, conference papers and annual reports would be the prospective contents of the university IRs of Bangladesh. However, the library heads are the implementers of the IR projects. They are the main actors for keeping the project active and responsible for the accuracy of contents. Duly, their opinions are not negligible, rather very important. They are experienced people too. The library heads of the selected libraries did not have high support to books or book chapters and student assignments for IRs. Books, book chapters and student assignments were not found in good numbers in other repositories discussed in the literature review section. Ezema (2013) put students' papers as a non-relevant item for IRs.

The library heads had moderate support (i.e., over 45%) to news clippings and preprints. Very little literature supports news clippings as an IR item. Only a few IRs were found in the literature that those were preserving news clippings. Preprints should be taken as a prospective IR item. Because many publishers allow authors to preserve their publications in their respective affiliated institutional repositories only the preprints. A good number of publishers only allow preprints to deposit into the institutional repositories.

Considering library users' view, opinions of library heads and literatures discussed in literature review section, prospective items for IRs of Bangladesh would be journal article, doctoral/master theses, research reports, teaching materials, conference papers, annual reports, and preprints.

Conclusion

Institutional repositories are emerging as a new dissemination platform to showcase scholarly contributions of organizations to world knowledge. These enable quick dissemination of contents or publications of the organizations. Moreover, IRs increase citations of those contents or works (Cho, 2019). Most of the contents are currently digitally born (Kroth, Phillips and Hannigan, 2010). Due to that, now it is relatively easy to collect those and also preserving. A successful repository needs planning (Bankier, Foster and Wiley, 2009). Content creators or collectors may hesitate on types of content. Determining content types in the planning stage would help the proper evolution of repositories. The collector or IR manager should have clear guidelines on content types and a clear understanding of content types may help the growth of repositories. The paper focused on the possible content types for the institutional repositories of Bangladesh on the basis of the opinions of collectors, creators, and users. This paper discussed only the university repositories. Research Organization repositories were not covered. Further research may be done for research organizations of Bangladesh. According to ROAR, institutions of Europe and North America share around 65% of total IRs of the world. Only one-fifth of ROAR registered repositories are from Asia. The presence of repositories in Bangladesh, as per ROAR, is very low, only twelve. Possibly, librarians of Bangladesh need guidance to develop repositories in their own institutions. This paper may guide them to determine the types of contents to be collected. The librarians and users both had consensus on some types of contents the repository managers may give emphasis on those items for collection and preservation.

References

- Bankier, J.-G., Foster, C. and Wiley, G. (2009). Institutional Repositories : strategies for the present and future. *The Serials Librarian*, 56(1-4), pp. 109-115. doi: 10.1080/03615260802665423
- Bates, M., Loddington, S., Manuel, S. & Oppenheim, C. (2006). *Rights and rewards Project: academic survey-final report*. Leicestershire, UK: Loughborough University. Available at: <https://dspace.lboro.ac.uk/dspace-jspui/handle/2134/1815> [Accessed 24 October 2018].
- Bhat, M. H. (2014). Exploring research data in Indian institutional repositories. *Program: Electronic Library & Information Systems*, 48(2), pp. 206-216. doi: 10.1108/prog-07-2012-0036

- Cho, J. (2019). Exploratory analysis of the operation of institutional repositories in Asian countries. *Information Development*, 35(2), pp. 262-271. doi: <https://doi.org/10.1177/0266666917742442>
- Cullen, R. and Chawner, B. (2010). Institutional repositories : assessing their value to the academic community. *Performance Measurement and Metrics*, 11(2), pp. 131-147. doi: <http://dx.doi.org/10.1108/14678041011064052>
- Elahi, M. H. and Mezbah-ul-Islam, M. (2018). Open access repositories of Bangladesh : An analysis of the present status. *IFLA Journal*, 44(2), pp. 132-142. doi: 10.1177/0340035218763952
- Ezema, I. J. (2013). Local contents and the development of open access institutional repositories in Nigeria University libraries. *Library Hi Tech*, 31(2), pp. 323-340. doi: <http://dx.doi.org/10.1108/07378831311329086>
- Francke, H., Gamalielsson, J. and Lundell, B. (2017). Institutional repositories as infrastructures for long-term preservation. *Information Research*, [online] 22(2). Available at <http://www.informationr.net/ir/22-2/paper757.html> [Accessed 12 January 2020].
- Genoni, P. (2004). Content in institutional repositories: a collection management issue. *Library Management*, 25(6/7), pp. 300-306. Available at <http://search.proquest.com/docview/198799536?accountid=31685> [Accessed 2004 2014-05-21].
- Harnad, S. (2005). The Implementation of the Berlin Declaration on Open Access. *D-Lib Magazine*, 11(3). Available at <https://eprints.soton.ac.uk/260690/> [Accessed 27 October 2019].
- Kroth, P. J., Phillips, H. E. and Hannigan, G. G. (2010). Institutional Repository Access Patterns of Nontraditionally Published Academic Content: What Types of Content Are Accessed the Most? *Journal of Electronic Resources in Medical Libraries*, 7(3), pp. 189-195. doi: 10.1080/15424065.2010.505515
- Lynch, C. A. (2003). Institutional repositories : essential infrastructure for scholarship in the digital age. *portal: Libraries and the Academy*, 3(2), pp. 327-336. doi: 10.1353/pla.2003.0039
- Mamtora, J., Yang, T. and Singh, D. (2015). Open access repositories in the Asia–Oceania region: Experiences and guidelines from three academic institutions. *IFLA Journal*, 41(2), pp. 162-176. doi: 10.1177/0340035215582219

- Miller, A. (2017). A case study in institutional repository content curation : a collaborative partner approach to preserving and sustaining digital scholarship. *Digital Library Perspectives*, 33(1), pp. 63-76. doi: 10.1108/DLP-07-2016-0026
- Sawant, S. (2012). Indian institutional repositories : a study of user's perspective. *Program*, [online] 46(1), pp. 92-122. doi: <http://dx.doi.org/10.1108/00330331211204584>
- Shajitha, C. and Abdul Majeed, K. C. (2018). Content growth of institutional repositories in South India: a status report. *Global Knowledge, Memory and Communication*, 0(0), p. null. doi: 10.1108/GKMC-02-2018-0018
- Shoeb, Z. H. (2010). Developing an institutional repository at a private university in Bangladesh. *OCLC Systems & Services: International digital library perspectives*, 26(3), pp. 198-213. doi: 10.1108/10650751011073634