

Utilization of Dspace for Repositories in India and Sri Lanka: A Study

Asoka Siriwardena¹, R. Balasubramani², Abu K.S³

¹Rajarata University of Sri Lanka

Mihintale

Srilanka

^{2,3} Department of Library & Information Science

Bharathidasan University

Trichy, India

ABSTRACT: *This paper examines the usage of Dspace software in Indian and Sri Lankan Institutions. The data for the study has been collected from the website of respective institutions. A total of 100031 collections were contributed by the Indian institutions and 37317 collections were contributed by the Sri Lankan Institutions. The study also further analyzed the Communities and Sub Communities, Contribution of authors etc.*

Keywords: D Space, Digital Repository, Digital Archives, Articles Storage

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1. Introduction

DSpace is an open source software package used for creating open access repositories for scholarly and published digital content. DSpace was designed and developed by Massachusetts Institute of Technology (MIT) Libraries and Hewlett-Packard (HP). DSpace repository software serves to fulfill the specific function as a digital archives system, focusing on the long-term storage, access and preservation of digital content. It preserves and enables easy and open access to all types of digital content including text, images, moving images, mpegs and data sets. The main role of Dspace is to store the intellectual output of an organization. Many institutions in India use Dspace such as IIT's, NIT's, IIM's, IISc, Universities, CSIR Labs, Engineering Colleges and other Research Institutions. This study concentrates on the usage of Dspace in Indian and Sri lankan institutions.

2. Aim of the work

This study is aimed to understand and estimate the usage with respect to numbers for Dspace software in India and Sri Lanka. It also tries to measure and analyse the collections holding and its ability to handle the volume. We intend to find and understand the number of Communities and Sub Communities available. Besides in this work we will find out and make known the authorship of the collection processed using DSpace. We feel that such a study can really helpful to the users to gain a comprehensive undrestanding of the deployment and the extent of the usability.

3. Methodology

The data for the study has been collected from the website of respective institutions. The study analysed the number of institutions using Dspace , their collections, number of Communities and Sub Communities available, number of authors etc.,. All these data were subsequently analyzed and tabulated for making observations.

4. Analysis

4.1. Collections

S.no	Institutions	Collections (Mar 2015)	Percentage (%)
1	Osmania University	24506	24.50
2	University of Delhi	14386	14.38
3	Indraprastha Institute of information Technology	158	0.16
4	Guru Gobind Singh Indraprastha University	135	0.13
5	National Institute of Oceanography (NIO)	4684	4.68
6	M.S University of Baroda	480	0.48
7	Indian Institute of Astrophysics	6483	6.48
8	Cochin University of Science and Technology	4048	4.04
9	Indian Institute of Management , Kozhikode	563	0.56
10	North-Eastern Hill University	8932	8.93
11	National Institute of Technology, Rourkela	2117	2.12
12	Pondicherry University	572	0.57
13	Thapar University	3138	3.13
14	Institute of Mathematical Sciences	310	0.31
15	Jadavpur University	29519	29.53
	TOTAL	100031	100

Table 1. Dspace collections in Indian Institutions

Table 1 presents the Dspace collections in Indian Institutions. The table reveals that a total of 100031 items, followed by Osmania University with 24506 documents.

4.2 Community and Sub Community

S.no	Institutions	Community	Sub Community
1	Osmania University Digital Library	2	3
2	University of Delhi	1	1
3	Indraprastha Institute of Information Technology	2	5
4	Guru Gobind Singh Indraprastha University	5	25
5	National Institute of Oceanography (NIO)	9	9
6	M.S University of Baroda	17	73
7	Indian Institute of Astrophysics	15	27
8	Cochin University of Science and Technology	10	47
9	Indian Institute of Management , Kozhikode	26	77
10	North-Eastern Hill University	44	253
11	National Institute of Technology, Rourkela	1	4
12	Pondicherry University	15	42
13	Thapar University	4	19
14	Institute of Mathematical Sciences	2	3
15	Jadavpur University	8	60
	TOTAL	161	648

Table 2. Communities and Sub communities of Indian Institutions

Table 2 shows the Communities and Sub communities of Indian Institutions. The table reveals that, a total of 161 communities and 648 Sub communities were contributed by the fifteen Indian Institutions. The observation is that among the usage institutions, the North-Eastern Hill University has the highest of 44 communities and 253 sub communities, followed by Indian Institute of Management, Kozhikode with 26 communities and 77 sub communities.

4.3. Contribution of Authors

S.no	Institutions	Authors
1	Osmania University	16923
2	University of Delhi	12194
3	Indraprastha Institute of information Technology	218
4	Guru Gobind Singh Indraprastha University	233
5	National Institute of Oceanography (NIO)	4264
6	M.S University of Baroda	439
7	Indian Institute of Astrophysics	5560
8	Cochin University of Science and Technology	3866
9	Indian Institute of Management , Kozhikode	566
10	North-Eastern Hill University	4671
11	National Institute of Technology, Rourkela	1574
12	Pondicherry University	1632
13	Thapar University	3710
14	Institute of Mathematical Sciences	279
15	Jadavpur University	2607
	TOTAL	58736

Table 3. Contribution of authors to Dspace Collection in Indian Institutions

Table 3 depicts the Contribution of authors to Dspace Collection in Indian Institutions. The table reveals that totally 58736 authors contributed to the Dspace Collection by the fifteen Indian institutions. It is clearly seen from the table that 16923 authors have contributed to Osmania University's Collection, followed by University of Delhi with 12194 authors.

4.4. Collections

Table 4 presents the Dspace collections in Sri Lankan Institutions. The table reveals that a total of 37317 collections were contained in these fourteen institutions. We observed that the National Science Foundation of Sri Lanka has the maximum of 10149 collections, followed by University of Kelaniya with 4688 collections.

S.NO	INSTITUTIONS	COLLECTIONS (MAR 2015)	PERCENTAGE (%)
1	University of Colombo	3877	10.39
2	University of Peradeniya	4492	12.04
3	University of Moratuwa	4531	12.14
4	University of Sri Jayawardenapura	1242	3.33
5	University of Kelaniya	4688	12.56
6	Open University of Sri Lanka	82	0.22
7	University of Jaffna	874	2.34
8	Sri Lanka Institute of Information Technology	172	0.46
9	Rajarata University of Sri Lanka	1241	3.33
10	Industrial Technological Institute	934	2.50
11	National Science Foundation of Sri Lanka	10149	27.20
12	Rubber Research Institute of Sri Lanka	1327	3.56
13	Coconut Research Institute of Sri Lanka	2057	5.51
14	Hector Kobbekaduwa Agrarian Research and Training Institute	1651	4.42
	TOTAL	37317	100

Table 4. Dspace collections in Sri Lankan Institutions

4.5. Community and Sub Community

Table 2 shows the Communities and Sub communities of Sri Lankan Institutions. The table reveals that, a total of 81 communities and 431 Sub communities were contributed by the fourteen Sri Lankan Institutions. It is clearly noticed from the table that University of Colombo has the highest of 13 communities and 71 sub communities, followed by University of Sri Jayawardenapura with 9 communities and 67 sub communities.

4.6. Contribution of Authors

Table 6 depicts the Contribution of authors to Dspace Collection in Sri Lankan Institutions. The table reveals that totally 37476 authors contributed to the Dspace Collection by the fourteen Sri Lankan institutions. Among the contributing institutions as given by the table that 8951 authors have contributed to National Science Foundation of Sri Lanka's Collection, followed by University of Moratuwa with 6225 authors.

S.NO	INSTITUTIONS	COMMUNITY	SUBCOMMUNITY
1	University of Colombo	13	71
2	University of Peradeniya	5	35
3	University of Moratuwa	3	21
4	University of Sri Jayawardenapura	9	67
5	University of Kelaniya	9	59
6	Open University of Sri Lanka	1	4
7	University of Jaffna	7	29
8	Sri Lanka Institute of Information Technology	6	17
9	Rajarata University of Sri Lanka	9	47
10	Industrial Technological Institute	5	17
11	National Science Foundation of Sri Lanka	6	37
12	Rubber Research Institute of Sri Lanka	4	11
13	Coconut Research Institute of Sri Lanka	3	10
14	Hector Kobbekaduwa Agrarian Research and Training Institute	1	6
	TOTAL	81	431

Table 5. Communities and Sub communities of Sri Lankan Institutions

5. Summary and Conclusion

This study analyzed the utilization of Dspace software in Indian and Sri Lankan institutions. The findings revealed that Jadavpur University has the maximum number of collections in India and National Science Foundation of Sri Lanka has the maximum number of collections in Sri Lanka. In assessing the Communities and Sub Communities, North-Eastern Hill University has the highest of 44 communities and 253 sub communities in India and that University of Colombo has the highest of 13 communities and 71 sub communities in Sri Lanka. In the contribution of authors, In India, 16923 authors have contributed to Osmania University's Collection and in Sri Lanka, 8951 authors have contributed to National Science Foundation of Sri Lanka's Collection. Hence it is concluded that more training programmes should be initiated to create awareness for using Institutional Repositories.

References

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S.NO	INSTITUTIONS	AUTHORS
1	University of Colombo	4035
2	University of Peradeniya	5614
3	University of Moratuwa	6225
4	University of Sri Jayawardenapura	1098
5	University of Kelaniya	5477
6	Open University of Sri Lanka	
7	University of Jaffna	428
8	Sri Lanka Institute of Information Technology	590
9	Rajarata University of Sri Lanka	1781
10	Industrial Technological Institute	834
11	National Science Foundation of Sri Lanka	8951
12	Rubber Research Institute of Sri Lanka	773
13	Coconut Research Institute of Sri Lanka	803
14	Hector Kobbekaduwa Agrarian Research and Training Institute	867
	TOTAL	37476

Table 6. Contribution of authors to Dspace Collection in Sri Lankan Institutions

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