

# A Statistical analysis of NDL India Sources: special reference to West Bengal Sources

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**Abstract:** Now a day's State government, Central government, Universities, Colleges, and others institutions taken many initiative for creation of digital repository system in India. NDL India is one of them and it run by MHRD, Govt. of India. In this paper we try to highlighted the Indian document uploaded and beside the contribution from West Bengal in respect of all over Indian documents as well as institution cover in NDL project and its ranking in respect of West Bengal.

**Key Words:** NDL India, Learning Resource, Indian Repository Systems.

## 1. INTRODUCTION:

Ministry of Human Resource Development under its National Mission on Education through Information and Communication Technology has initiated the National Digital Library of India (NDL India) pilot project to develop a framework of virtual repository of learning resources with a single-window search facility. Filtered and federated searching is employed to facilitate focused searching so that learners can find out the right resource with least effort and in minimum time. NDL India is designed to hold content of any language and provides interface support for leading Indian languages (currently Hindi and Bengali). It is being arranged to provide support for all academic levels including researchers and life-long learners, all disciplines, all popular form of access devices and differently-abled learners. It is being developed to help students to prepare for entrance and competitive examination, to enable people to learn and prepare from best practices from all over the world and to facilitate researchers to perform inter-linked exploration from multiple sources. The pilot project is devising a framework that is being scaled up with respect to content volume and diversity to serve all levels and disciplines of learners. It is being developed at IIT Kharagpur.

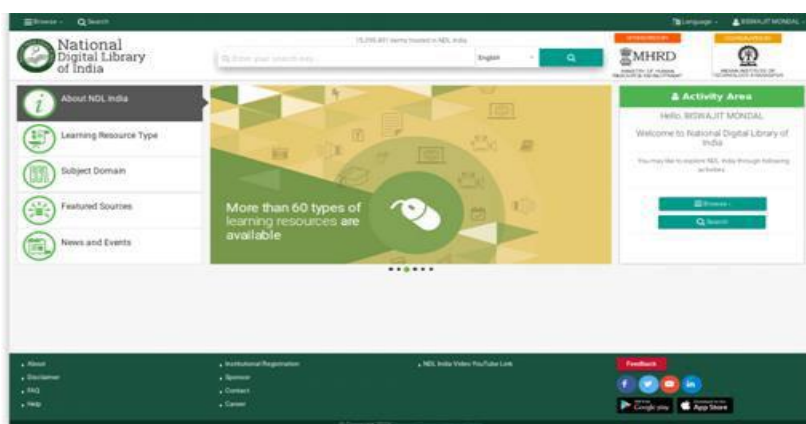


Figure 1: NDL Home Page

## 2. LITERATURE REVIEW:

**Samanta and Mondal (2017)** discusses about National Digital Library of India, specially on NDL India Mobile App through which we can access NDLI. It analyses documents prevailed in different divisions of LIS subject. The study has attempted to report a quantitative analysis of documents prevailed in LIS subject searched by NDL of India mobile apps. **Jeelani; Mir and Wani (2016)** gives a detailed list of institutional repositories in India along with their special characteristics/features that make them unique and serviceable to its user community. Indian researchers get number of barriers in their research while getting needed material like deterioration of primary source, distance factor & non availability of needed source. The only way to tap this missing research is the concerned Institutional repositories. Although a number of studies have been carried out discussing growth and development, technical and establishment

issues of Indian Institutional Repositories, no effort has been made to explore various kinds of documents available in these repositories. The present study is an endeavor in this direction. **Rathinasabapathy; Veeranjanyulu and Kumar (2016)** attempted to report a qualitative analysis of KrishiKosh revealed that top ten libraries have contributed 50,198 documents (76.99%) in which 5 are SAU libraries (41.95%) and 5 are ICAR Institute libraries (35.04%). The study also found that 28 SAUs listed in the IACR web site have not taken part in the KrishiKosh which is the national level initiative. It is suggested that the 28 SAU libraries should be included in KrishiKosh. **Das and Chatterjee (2015)** focus on the requirements, functions and use of digital preservation in an institutional repository context. The paper highlights on various feature and importance of both Institutional Digital Repository and Open Source Digital Library Software that is DSpace. The Central Library IIT, Kharagpur uses open sources digital library software namely DSpace. The IDR of Indian Institute of Technology Kharagpur (IITKGP) collects preserves and makes available in digital format of the scholarly output of IIT Kharagpur community. **Dhanavandan and Tamizhchelvan (2014)** paper discussed about the recent trends and growth of Institutional Repository (IR) in south Asian countries. An institutional repository is an online locus for collecting, preserving, and disseminating - in digital form - the intellectual output of an institution, particularly a research institution. And it further deals about the name of the repositories, size, type, content and languages and various software. South Asian countries like India, Pakistan, Nepal, Bangladesh and Sri Lanka have institutional repositories in their respective libraries but Bhutan and Maldives are not having any repositories. **Waghmode (2014)** selected the INFLIBNET's Institutional Repository. Researcher found that all available collections are freely available to the researcher. Total collection of records is 1328 in IR@INFLIBNET. Maximum collections are from proceedings collection (1245). Researcher found in the study there are 1598 contributors are contributed in the collection. Maximum contributions are from INFLIBNET Centre as institutional authority and individual contribution from Dr. T. A. V. Murthy. There are 2714 subjects covered in this IR collection. Current trend is displayed in the subject wise collection analysis. In this IR collections are available from 1995-2014 during the period of publication. Maximum papers on digital library study. 133 no. of papers are available in the digital library subject. Maximum records are increased from 2001. This growth of collection is related to starting of Planner and Caliber.

### 3. OBJECTIVES OF THE STUDY:

Main objectives of these studies are as follows:

- To find out the percentage of Indian document and West Bengal Document in NDL India.
- To find out subject wise collection from West Bengal Document.
- To find out the top twenty contributors of Indian Institutions as well as West Bengal Institutions.

### 4. METHODOLOGY:

Here we selected only Indian institutions which are listed in the National Digital Library of India Repository for this analytical study. For this study we collect all related data from National Digital Library of India's website upto 31/03/2018.

### 5. DATA ANALYSIS:

After collecting all related data we analyzed them simple frequency method. Figure. 2 shows that Indian Institute and West Bengal institute number those who are contribute documents in National Digital Library of India repository. 90 Indian Institutions are contributing their documents and 12 West Bengal Institutions are contributing their documents. All graphical data are presentation in below the bar-diagram.

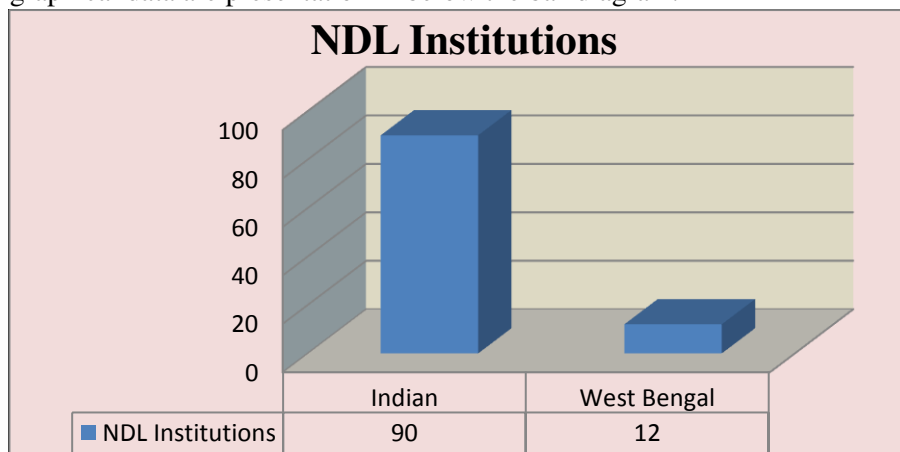


Figure 2: NDL Institutions

<b>Document Percentage</b>		
Total NDL	Other Than Indian	98.64
	Indian	1.36
India	Other than West Bengal	1.2951
	West Bengal	0.0649

Table 1 shows that 1.36% percentages of documents contribute by the Indian Institution and 98.64% contribute by Other than Indian Institutions. The above table also represents that 0.0649% percentages of documents contribute by the West Bengal Institutions and 1.2951% represent that other than West Bengal Institutions.

<b>Rank</b>	<b>Institute</b>	<b>Documents</b>
1	Legal Information Institute of India (LII of India)	86607
2	The Indian Law Institute, New Delhi	27979
3	IIT Roorkee-Thesis	15104
4	NPTEL	9091
5	Institute for Social and Economic Change	8899
6	Sanjay Gandhi Postgraduate Institute of Medical Science	7142
7	NCERT	4702
8	Archaeological Survey of India	4512
9	UGC-National Eligibility Test (NET) Examination	4359
10	Bombay High Court Judges' Library	3121
11	CSIR-Institute of Microbial Technology	2932
12	ICAR-Central Institute of Fisheries Technology	2313
13	Gujarat Secondary and Higher Secondary Education Board	2249
14	MoES-Indian National Centre for Ocean Information Services	2231
15	CSIR National Physics Laboratory	2135
16	Sree Chitra Tirunal Institute for Medical Sciences & Technology	2098
17	CSIR-Indian Institute of Chemical Biology	1938
18	Birbal Sahni Institute of Paleobotany	1777
19	NIT Kurukshetra	1767
20	SCERT Andhra Pradesh	1444
21	CSIR-National Chemical Laboratory	1431
22	Karnataka Secondary Education Examination Board	1171
23	IIT Gandhinagar	1160
24	ICMR-National Institute of Research in Tuberculosis (NIRT)	1122
25	Saurashtra University	1095
26	Tamil Nadu Agricultural University	1059
27	Kerala University of Health Sciences (KUHS)	1053
28	CSIR-Central Building Research Institute, Roorkee	1044
29	IIT Hyderabad	1035
30	University of Kashmir	1009
31	IISER Bhopal	945
32	Vidyasagar University	933
33	Swami Vivekananda Yoga Anusandhana Samsthana	914
34	Madras Diabetes Research Foundation	899
35	School of Cultural Texts and Records (SCTR), Jadavpur University	889
36	UPSC-Civil Services Examination	789
37	Presidency University, Kolkata	774
38	Central Board of Secondary Education	719
39	The Tamil Nadu Dr. M.G.R. Medical University	671

40	SCERT Kerala	639
41	Bose Institute	628
42	Dhirubhai Ambani Institute of Information and Communication Technology	602
43	Indian National Science Academy	563
44	IIM Kozhikode	551
45	MoES-National Centre for Antarctic and Ocean Research	504
46	IISER Kolkata	494
47	SDM College of Medical Sciences & Hospital, Dharwad	484
48	CSIR-Indian Institute of Petroleum, Dehradun	475
49	India Code Legislative Department	454
50	IT Roorkee-Institutional Repository	451
51	CSIR-Central Scientific Instruments Organisation	423
52	Maharashtra State Board of Secondary and Higher Secondary Education	338
53	IISER Mohali	307
54	Chitkara University	296
55	Indraprastha Institute of Information Technology, Delhi	264
56	UPSC-Indian Forest Services (Main) Examination	240
57	Graduate Aptitude Test in Engineering	185
58	West Bengal State Council of Vocational Education & Training	158
59	UPSC-Engineering Services Examination	154
60	Board of Secondary Education, Odisha	136
61	Visvesvaraya National Institute of Technology, Nagpur	128
62	IIT Jodhpur	92
63	National Institute of Immunology	88
64	State Council for Technical Education and Vocational Training, Odisha	83
65	UPSC-Indian Economic Service/ Indian Statistical Service Examination	80
66	Joint Admission Test for M.Sc.	75
67	West Bengal Board Secondary Education	70
68	Odisha Primary Education Programme Authority	62
69	UPSC-Combined Defence Services Examination	54
70	IGNOU	51
71	West Bengal Board Of Primary Education	42
72	Joint Admission Board IITs	41
73	UPSC-National Defence Academy & Naval Academy Examination	40
74	Satyajit Ray Society	38
75	West Bengal Council of Higher Secondary Education	36
76	UPSC-Special Class Railway Apprentice Examination	28
77	UPSC-Combined SOs Steno's (Gr.B Gr.I) LDC Examination	21
78	UPSC-Combined Geo-Scientist & Geologists Examination	20
79	Tripura Board of Secondary Education	19
80	UPSC-Combined Medical Services Examination	18
81	UPSC-Central Armed Police Force (CAPF) AC Examination	17
82	UPSC-Central Industrial Security Force (CISF) AC Limited Departmental Examination	14
83	Council of Higher Secondary Education, Odisha	8
84	UPSC-Computer Based Recruitment Test Examination	8
85	UPSC-Central Police Force (AC) Examination	6
86	UPSC-Geologists Examination	5
87	UPSC-Indian Police Service (Limited) Competitive Examination	5
88	CSIR-Open Access Repository of Indian Thesis	4
89	UPSC-IFS \BV' Branch (Under Secretary) SLDC Examination	3
90	Inflibnet-Shodhganga	1

From the above Table 2, it is found that Legal Information Institute of India (LII of India) has 86607 documents; The Indian Law Institute, New Delhi represent 27979 documents ; IIT Roorkee-Thesis has 15104

documents ; NPTEL has 9091 documents; Institute for Social and Economic Change has 8899 documents; Sanjay Gandhi Postgraduate Institute of Medical Science has 7142 documents; NCERT has 4702 documents; Archaeological Survey of India has 4512 documents ; UGC-National Eligibility Test (NET) Examination has 4359 documents ; Bombay High Court Judges' Library has 3121 documents respectively.

**Table: 3 West Bengal Institutional Ranking by Documents**

Sl. No	Institute	Documents	Indian Rank	West Bengal Rank
1	Archaeological Survey of India	4512	8	1
2	CSIR-Indian Institute of Chemical Biology	1938	17	2
3	Vidyasagar University	933	32	3
4	School of Cultural Texts and Records (SCTR), Jadavpur University	889	35	4
5	Presidency University, Kolkata	774	37	5
6	Bose Institute	628	41	6
7	IISER Kolkata	494	46	7
8	West Bengal State Council of Vocational Education & Training	158	58	8
9	West Bengal Board Secondary Education	70	67	9
10	West Bengal Board Of Primary Education	42	71	10
11	Satyajit Ray Society	38	74	11
12	West Bengal Council of Higher Secondary Education	36	75	12

From the above Table: 3, it is found that West Bengal Institutional Ranking by Documents. Archaeological Survey of India has 4512 documents and its Indian rank 8 and West Bengal rank 1 among the Institution; CSIR-Indian Institute of Chemical Biology has 1938 documents and its Indian rank 17 and West Bengal rank 2 among the institution; Vidyasagar University has 933 documents and its Indian rank 32 and West Bengal rank 3 among the institution; School of Cultural Texts and Records (SCTR), Jadavpur University has 889 documents and its Indian rank 35 and West Bengal rank 4 among the institution; Presidency University, Kolkata has 774 documents and its Indian rank 37 and West Bengal rank 5 among the institution; Bose Institute has 628 documents and its Indian rank 41 and West Bengal rank 6 among the institution; IISER Kolkata has 494 documents and its Indian rank 46 and West Bengal rank 7 among the institution; West Bengal State Council of Vocational Education & Training has 158 documents and its Indian rank 58 and West Bengal rank 8 among the institution; West Bengal Board Secondary Education has 70 documents and its Indian rank 67 and West Bengal rank 9 among the institution; West Bengal Board Of Primary Education has 42 documents and its Indian rank 71 and West Bengal rank 10 among the institution; Satyajit Ray Society has 38 documents and its Indian rank 74 and West Bengal rank 11 among the institution; West Bengal Council of Higher Secondary Education has 36 documents and its Indian rank 75 and West Bengal rank 12 among the institution.

**Table: 4 Document Distributions in Subject Wise**

Subject Institutions	Subject										
	Computer Science, Generalities (1,448,658)	Philosophy (346,804)	Religion (187,977)	Social Science(1,409,891)	Language (62,175)	Natural Science & Mathematics (4,214,214)	Technology (7,940,267)	The Arts, fine & decorative arts (196,621)	Literature & rhetoric (498,182)	History and Geography (446,142)	Total
Archaeological Survey of India	49	21	68	37	12	9		97	65	4154	4512
Bose Institute						628					628
CSIR-Indian Institute of Chemical Biology	3					1206	729				1938
IISER Kolkata						494					494
Presidency University, Kolkata	763			4	1		1	2	2	1	774
Satyajit Ray Society								38			38



School of Cultural Texts and Records (SCTR), Jadavpur University	63		2	384				33	200	207	889
Vidyasagar University	40	33	11	262	13	418	39		47	70	933
West Bengal Board Of Primary Education	1			5		13			23		42
West Bengal Board Secondary Education						20			37	13	70
West Bengal Council of Higher Secondary Education	4	2		4		17	1	1	4	3	36
West Bengal State Council of Vocational Education & Training	21			7		25	87	7	11		158
Total	944	56	81	703	26	2830	857	178	389	4448	10512
Percentage	8.98	0.53	0.78	6.68	0.24	26.28	8.16	1.69	3.7	42.31	100

From the above Table: 4, it is found that Document distribution by subject wise. Computer science, information & general works has 8.98% documents; Philosophy & psychology has 0.53% has documents; Religion has 0.78%; Social sciences has 6.68% documents; Language has 0.24% documents; Natural sciences & mathematics has 26.28% documents; Technology has 8.16% documents; The arts; fine & decorative arts has 1.69% documents; Literature & rhetoric has 3.7% documents; History & geography has 42.31% documents.

## 6. FINDINGS:

This study shows that Indian Institutions documents contribute percentages and other than Indian Institutions contribute percentages specially focusing on West Bengal Institutions contribute percentage. 90 Indian Institutions participated and contributed their resources where as just 12 West Bengal Institutions participated and contributed their resources. Table 1 shows that maximum documents contribute by the other than Indian Institutions whereas Indian Institutions share their resources just 1.2951. Table 2 shows that all Indian Institution documents share and his ranked among all Indian Institutions. Legal Information Institute of India (LII of India) achieved first position. Table 3 shows that West Bengal Institutional ranking as well as Indian Institutional ranking. Archaeological Survey of India achieved first position among all West Bengal participant institutions and the institution achieved 8 ranks among all Indian participant institutions, CSIR-Indian Institute of Chemical Biology achieved second position among all West Bengal participant institutions and the institution achieved 17 ranks among all Indian participant institutions. Table 4 shows that History & Geography stand first position (42.31%); Natural science & mathematics second position (26.28%) among those documents were contributed by the West Bengal Institutions. Documents on Language were contributed least number (0.24%). In Table 2 above 15000 documents were contribute each Indian Institutions those who were ranked top three and above 1000 documents were contribute each Indian Institutions those who were ranked between fourth to thirty. In Table 3 above 1000 documents contribute each West Bengal Institutions whose were ranked top two and last four ranked each institutions contribute below 100 documents.

## 7. CONCLUSION:

No doubt NDL India is a big platform for learning resources but in view of our study we found that other than Indian Institutions Contribute document much more (98.64%) where as Indian document is 1.36%. Beside we also found that in respect of West Bengal has less contribution i.e. 0.0649%. So we suggested that if Indian document contribution increases in NDL India then Indian learning as well as research system more develop in our education system as well as tech society.

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