

## Coverage and overlap of primary journals indexed by Library, Information Science and Technology Abstracts and Library and Information Science Abstracts

K.C. Garg<sup>a</sup>, Suresh Kumar<sup>b</sup> and Rahul Kumar Singh<sup>c</sup>

<sup>a</sup>Former Chief Scientist, CSIR-National Institute of Science Technology and Development Studies (CSIR-NISTADS),  
Dr. K.S. Krishnan Marg, New Delhi 110012, Email: gargkc022@gmail.com

<sup>b</sup>Head, Knowledge Resource Centre, CSIR-National Institute of Science Technology and Development Studies (CSIR-NISTADS),  
Dr. K.S. Krishnan Marg, New Delhi 110012, Email: sureshkr@nistads.res.in

<sup>c</sup>Junior Library and Information Assistant, Nehru Memorial Museum and Library, Teen Murti House, New Delhi 110011,  
Email: rahulnmml@gmail.com

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An analysis of primary documentary sources indexed by Library, Information Science and Technology Abstracts (LISTA) and Library and Information Science Abstracts (LISA) indicates that LISTA indexed 519 and LISA indexed 327 primary documentary sources. These sources mainly are scholarly or academic journals, magazines and trade journals. As proportion of total documentary sources, the share of scholarly journals indexed by LISA was more than LISTA. However, in absolute terms the journals indexed by LISTA were more than LISA. LISTA indexed scholarly journals from 37 countries and LISA indexed scholarly journals from 38 countries. LISA mainly emphasized indexing of scholarly periodicals as compared to LISTA, which also emphasized to index magazines. Of the total 646 scholarly titles indexed by LISTA and LISA, 131 titles were common to both databases. Maximum titles indexed by both the databases were published from USA and UK. Most of these journals were published by commercial publishers. Taylor and Francis Ltd contributed highest number of journals to both the databases.

**Keywords:** LIS journals; LISA; LISTA

### Introduction

Primary journals play an important role in disseminating new knowledge and current developments in a specific discipline or sub discipline. These journals contain scholarly articles written either by academicians, researchers, or experts in a field of knowledge. Journal articles are written for experts or students of that particular field who understands field-specific vocabulary and knowledge. These are formal in writing style and format which aims at specialized academic audience. The last few decades have seen a tremendous growth in published literature resulting in knowledge explosion and a spurt in the publication of new journals. With the rapid growth in the number of journals in different fields, it has become difficult for scholars to keep a tab on latest developments in their field of research. This has resulted in the evolution of abstracting and indexing (A&I) publications and services. These services provide intellectual access to the content of published

literature and other materials. These tools are indispensable to the researchers and students alike. These services arrange the published items in a helpful order for identification and location of individual items, which in turn help the readers to quickly access the original papers in their field of knowledge. Most of these services are currently available in electronic form in an online mode. Important A&I services available in the field of Library and Information Science (LIS) are Information Science and Technology Abstracts (ISTA), Library and Information Science Abstract (LISA), Library, Information Science and Technology Abstracts (LISTA) and Library Literature and Information Science (LLIS).

### Library, Information Science Technology Abstracts (LISTA)

*EBSCO Information Services, a division of EBSCO Industries Inc, started publishing LISTA in the mid of*

1960. It is an international open-access A&I database designed for library and information professionals. It abstracts and indexes topics that include librarianship, classification, cataloguing, bibliometrics, online information retrieval, and information management, among others. LISTA indexes journals, magazines, news papers, trade publications and reports. According to coverage policy these have been divided into three categories. These are "Core", "Priority" and "Selective". "Core" coverage refers to sources which are indexed and abstracted in their entirety means cover to cover; "Priority" coverage refers to sources with a substantial volume of materials relevant to the field of LIS, and "Selective" coverage refers to sources with an occasional volume of material relevant to the field of LIS. The audience of LISTA includes researchers, students, library staff, and information professionals. At present it indexed 517 titles published from 37 different countries scattered all over the globe. The distribution of these by type of documents has been provided in Table 1.

### Library and Information Science Abstracts (LISA)

Like LISTA, Library and Information Science Abstracts (LISA) is also an international A&I service designed for library professionals and other information specialists. It started publishing in the year 1969 and provided bibliographic information about past and present developments in librarianship, information science, online retrieval, publishing, and information technology. It has an international perspective and a diverse audience. The database indexed 327 periodical titles published from 38 different countries. The distribution of these by type of documents has been provided in Table 1. For most of these journals, all articles are indexed and abstracted, but for a few titles, the editor selects only

those articles which are relevant to the information community.

### Fast facts about LISTA and LISA

Both databases provide title of the sources indexed, dates from which abstracts are available, ISSN number of the documents indexed, types of publication *i.e.* academic journal, magazine or trade journal etc, and name of the publisher. In addition to these, LISA provides Cite score, SJR ranking, SINP ranking and name of the publishing country. However, these are not available in LISTA, while it provides coverage policy, which is not provided by LISA. In selecting a journal for inclusion in its database both LISTA and LISA takes into consideration a wide range of criterion like publishing standards, timeliness, editorial content, peer review process followed by the journal and international diversity of authorship, and citation data.

### Review of literature

In the past a few studies have been reported in literature which compared journal and article overlap in different abstracting and indexing services. Most of these studies compared overlap among different abstracting services in the field of science and technology and only one dealt with overlap in abstracting and indexing services in library and information science. For instance, Spencer<sup>1</sup> prepared a bibliography on drug thalidomide using *Chemical Abstracts (CA)*, *Index Medicus (IM)*, and *Science Citation Index (SCI)* 1961 and 1964. The author found that CA-IM gave a superior coverage of chemical papers and patents, while SCI gave a better coverage of pharmacological aspects.

In another study, Luthra<sup>2</sup> compared the overlap between *Chemical Abstracts* and *Index Chemicus*

Table 1—Distribution of titles by type of documents

Document type	LISTA (%)	*LISA (%)	Total (%)
Scholarly journals	365 (70.3)	281(85.9)	644 (76.3)
Trade journals	22 (4.3)	32 (9.8)	54 (6.4)
Magazines	122 (23.5)	13 (4.0)	135 (16.0)
Report + News paper + Others	10 (1.9)	1 (0.3)	11 (1.3)
Total	519 (100)	327 (100)	846 (100)

\*LISA listed 444 journals titles in its database. Of the 389 listed scholarly journals, 108 titles were duplicates. In 40 trade journals, 8 were duplicates and in 15 magazines 2 were duplicates. Thus, in all 444 titles 117 titles were duplicates.

with regard to their coverage, bibliographic data, indexes, time-lag, cost and use. He found that neither of the two can be a substitute for the other. Wood, Flanagan and Kennedy<sup>3</sup> examined 14,592 different journals monitored by *Biological Abstracts* of the Biosciences Information Service (BIOSIS), *Chemical Abstracts* of the Chemical Abstracts Services (CAS) and *Engineering Index* (EI) of Engineering Index Inc as on May 1, 1970. Authors found that 1% titles were monitored by all the three services, while 27% were monitored by two of the three services and 72% were monitored by only one of the three services. Subsequent phases of the study<sup>4</sup> determined the extent to which the services covered the same articles within the journals.

Jerome<sup>5</sup> examined the coverage of physics journals by SPIN (*Searchable and Physics Information Notes*) and CAC (*Chemical Abstracts Condensates*). The study found that the average overlap of the two bases for the 70 Physics journals was 76% between contents of SPIN and CAC for January 1971. Smelly<sup>6</sup> compared overlap between *Psychological Abstracts* (PA) and *Index Medicus* (IM) for psychology-operant conditioning. The study found a considerable overlap between the two services. However, considerable difference was observed between PA and IM in their recency of coverage of the literature.

Poyer<sup>7</sup> examined journal article overlap among *Index Medicus*, *Science Citation Index*, *Biological Abstracts*, and *Chemical Abstracts* using journal references from 70 dissertations in the preclinical sciences. The study found that of the 7,969 journal references cited, 92% were indexed by at least two of these services; 591 articles were covered by only one of the services, and 55 articles were not indexed by any of these services.

Longo and Machado<sup>8</sup> compared AGRICOLA, AGRIS, and CAB databases in the agricultural sciences for periodical titles indexed by each of these services. Authors found that the duplication rates of periodical titles among the three databases were 10%. Authors also concluded that the logical sequence for acquisition of the databases one at a time is CAB, AGRICOLA, and AGRIS, in this order.

Ernest and Lange<sup>9</sup> compared online versions of LISA, Education Resources Information Centre (ERIC) and *Library Literature*, with an emphasis on

time lag and duplication. Six searches of each database were executed over a period of fifteen months. One search was qualified by publication year; the other five searches were unqualified. Study found that *Library Literature* had the least time lag and LISA the most. ERIC ranked between the two. Duplication among the three was low. Gluck<sup>10</sup> provides an excellent review of literature dealing with studies of journal and article overlap with their limitations and advantages of each study that have been published in the past.

### Objectives of the study

The present paper examines number of primary scholarly journals indexed by LISTA and LISA, and measures the quantum of overlap between the two databases. Journal coverage overlap has been defined as the ratio of the number of either journal titles in the intersection of two secondary sources to the number in their union. This analysis will help in understanding about the status of journals published by different countries and indexed by these two services. The objectives of the study are to examine the following aspects of overlap in two databases for scholarly journals only:

- To analyze the coverage by type of sources i.e. academic journal, magazine or trade journal and distribution of documents based on coverage policy;
- To examine the distribution of primary journals by continents and country of publication and to identify the countries that has the highest number of journals indexed by the two databases;
- To examine the distribution of journals by type of publishers i.e. commercial or society/association or academic institution, and documentation centre;
- To develop a frequency distribution of titles indexed by prolific publishers for the two databases; and
- To examine the extent of overlap between the two databases.

### Methodology

The list of journals indexed by LISTA was downloaded from the website <https://www.ebscohost.com/title-lists> on June 10,

2018. The list of journals is available in PDF and MS-Excel formats. Authors of this paper downloaded the data in MS-Excel format and the downloaded data was enriched with the name of the publishing country as identified from the name of the publisher. ProQuest, the publisher of LISA made us available the list of journals indexed by LISA on June 12, 2018. Data was enriched by type of publishers *i.e.* commercial, association or society or academic institution or documentation centre for both the databases.

## Results and analysis

### Distribution of titles abstracted by type of documents and coverage policy

An analysis of data by type of documents indicates that LISTA and LISA indexed 519 and 327 primary sources respectively. The two together indexed 846 titles. Of these, 646 (76.3%) titles were scholarly or academic journals. These include 131 scholarly journals, which were common to the two databases, and the rest 23.7% were trade journals and magazines etc. Data presented in Table 1 indicates that the number of academic journals indexed by the two databases differed significantly. As percentage of total indexed journals, LISA indexed more scholarly and trade journals. However, the number of magazines indexed by LISTA was considerably high than indexed by LISA. Further analysis of data on the distribution of titles based on coverage policy of the journals, it is observed that more than two third of the 519 titles indexed by LISTA were core titles followed by selective titles and only few were priority titles. Most of the selective titles and priority titles were published from USA, UK and The Netherlands. LISA

did not provide information about the coverage policy; hence the same has not been discussed here.

### Distribution of indexed scholarly journals by continent

The distribution of journals indexed by different continents has been depicted in Table 2. It indicates that LISTA indexed 365 scholarly journals from 37 different countries from the seven continents. In case of LISA, 281 journals were indexed from 38 different countries scattered in five continents. It did not index any journal from Oceania and Central America. In both the databases, number of journals indexed was highest from Europe followed by North America. In LISTA, more than half (54.8%) of the journals indexed were from Europe followed by North America. Similar trends were observed for LISA. However, as proportion of total journals indexed by the two databases from North America and Europe differed considerably. LISTA indexed more titles from Europe, while LISA indexed more titles from North America.

### Distribution of indexed journals by publishing country

Table 3 list 15 countries from where five or more number of journal titles indexed by LISTA and LISA together originated. Of these highest (206) titles indexed were from the USA followed by titles from the UK (197), The Netherlands (43), Germany (39), Canada (18) and Spain (16). Of the total, 646 titles indexed by the two database more than two-third (80.3%) originated from these six countries. Remaining indexed journals originated from 22 other countries for LISTA and 23 countries for LISA. However, the number of titles indexed by the two databases differed for each country. For instance,

Table 2—Distribution of indexed journals by continents

Sl. no.	Continent	LISTA		LISA	
		Number of countries	Journals indexed (%)	Number of countries	Journals indexed (%)
1	Europe	17	200 (54.8)	18	134 (47.7)
2	North America	2	124 (33.9)	3	101 (35.9)
3	Asia	10	27 (7.4)	11	32 (11.4)
4	South America	3	4 (1.1)	4	8 (2.8)
5	Africa	2	5 (1.4)	2	6 (2.2)
6	Oceania	2	4 (1.1)	-	-
7	Central America	1	1 (0.3)	-	-
	Total	37	365 (100)	38	281 (100)

titles published from USA and UK were almost equal in LISTA, while titles indexed from USA were more for LISA as compared to UK.

#### Distribution of titles indexed by type of publishers

Journals published from different countries were classified into four types of publishers. These were commercial publishers (C), associations or societies (AS), academic institutions (AI) and Documentation centres (DC). Journals which could not be classified into these four types of publisher were designated under others and have been clubbed with documentation centres. Analysis of data indicates that 178 and 129 different publishers published titles indexed in LISTA and LISA respectively. Data presented in Table 4 indicates that in both the databases, highest number of periodicals indexed was published by commercial publishers followed by associations or societies and academic institutions. Analysis of data presented in Table 4 indicates that of the 365 titles indexed by LISTA, half were published by commercial publishers and 25% were published by associations or societies. The remaining 25% were

published by academic institutions and documentation centres including others. Similarly for LISA, commercial publishers followed by associations or societies, which published 20% of the journals, published about 54% titles. Table 5 lists publishers who published five or more journal titles. Data presented in Table 4 indicates that almost half of the periodicals indexed by the two databases were published by these 13 publishers. Remaining titles were published by 165 and 116 publishers respectively for LISTA and LISA. Among these, 151 and 107 publishers contributed only one title each for LISTA and LISA respectively.

#### Overlap of journals in LISTA and LISA

Of the 646 scholarly titles indexed by LISTA and LISA only 131 (20.3%) were common titles in the two databases. Of these, about 37.4% were published from UK followed by USA, which contributed 33.6% titles. We calculated percent overlap for total number of journals and journals published from countries listed in Table 5 using the following formula:

Table 3—Distribution of journal titles by publishing country and type of publishers

Sl. no.	Country	Type of publisher (LISTA)					Type of publisher (LISA)					Total(1+2)
		C	AS	AI	DC	Total (1)	C	AS	AI	DC	Total (2)	
1	USA	38	48	21	8	115 (31.5)	57	24	10	-	91 (32.4)	206
2	UK	89	10	13	4	116 (31.8)	70	8	2	1	81 (28.8)	197
3	Netherlands	26	2	-	1	29 (7.9)	12	2	-	-	14 (5.0)	43
4	Germany	25	2	1	1	29 (7.9)	8	1	-	1	10 (3.6)	39
5	Canada		5	4	-	9 (2.5)	-	5	4	-	9 (3.2)	18
6	Spain	-	1	2	4	7 (1.9)	1	-	4	4	9 (3.2)	16
7	India	1	2	-	3	6 (1.7)	-	1	-	5	6 (2.1)	12
8	Japan	-	1	1	-	2 (0.5)	-	5	1	2	8 (2.8)	10
9	South Africa	2	1	1	-	4 (1.1)	1	2	1	1	5 (1.8)	9
10	China	-	3	-	1	4 (1.1)	-	2	1		3 (1.1)	7
11	Brazil	-	-	1	1	2 (0.5)	-	-	4	1	5 (1.8)	7
12	Singapore	2	2	-	-	4 (1.1)	1	1	-		2 (0.7)	6
13	Italy		1	1	-	2 (0.5)	2	-	1		3 (1.1)	5
14	Croatia	-	2	-	-	2 (0.5)	-	1	1	1	3 (1.1)	5
15	Iran	-	1	-	2	3 (0.8)	-	-	1	1	2 (0.7)	5
	Sub total	183	81	45	25	337 (92.3)	152	52	30	17	251(89.3)	588
	Other countries	2	11	8	10	28 (7.7)	-	3	15	12	30 (10.7)	58
	Grand total	185	92	53	35*	365	152	55	45	29§	281	646

\* Of the 35 titles under the category of others, 16 were published by documentation centres.

§ Of the 29 titles under the category of others, 22 were published by documentation centres.

C: Commercial publisher, AS: Association and Society publications, AI: Academic institutions publications and DC: Documentation centres including others.

Table 4—Distribution of journals published by different publishers

Sl. no.	Publisher	Number of journals indexed	
		LISTA	LISA
1	Taylor & Francis Group	49	47
2	Emerald Group Publishing Ltd	24	30
3	Elsevier Science Ltd	22	12
4	Springer Science and Business Media	15	5
5	Routledge	13	-
6	Sage Publications Ltd	11	8
7	IGI Global	9	28
8	American Library Association	9	7
9	Oxford University Press	6	-
10	Walter De Gruyter GmbH	6	3
11	*CILIP	5	2
12	Wiley Blackwell	5	4
13	IOS Press	4	3
	Total	178 (48.7)	149 (53.0)
	Total journals indexed	365	281

\*CILIP: Chartered Institute of Library & Information Professionals

Table 5—Number of common journals indexed in LISTA and LISA database by country

Sl. no.	Country	Number of Journals	Percent overlap
1	UK	49	24.9
2	USA	44	21.4
3	The Netherlands	11	25.6
4	Germany	6	15.4
5	India	4	33.4
6	South Africa	3	33.4
7	Spain	3	18.7
7	Canada	2	11.1
8	Other 9 countries* (1 each)	9	22.9
	Total	131	20.3

\*China, Croatia, Hungary, Iran, Lithuania, Malaysia, Pakistan, Singapore, Slovenia

$\% \text{ overlap} = 100 * (\# \text{ in A intersect B} / \# \text{ in A union B})$

Using the above formula, the total overlap was 20.3%. The overlap was highest for the journals published from India and South Africa. These two countries had the highest proportion of overlap, because of the 12 journals indexed by each database for India; four are common to both databases and 9 journals in case of South Africa three are common.

Total overlap =  $100 * (131/646) = 20.3\%$

Overlap for journals published from UK =  $100 * (49)/197 = 24.9\%$

Overlap for journals published from USA =  $100 * (44)/206 = 21.4\%$

Overlap for journals published from The Netherlands =  $100 * (11)/43 = 25.6\%$

Overlap for journals published from Germany =  $100 * (6)/39 = 15.4\%$

Overlap for journals published from India =  $100 * (4)/12 = 33.4\%$

Overlap for journals published from South Africa =  $100 * (3)/9 = 33.4\%$

Overlap for journals published from Spain =  $100 * (3)/16 = 18.7\%$

Overlap for journals published from Canada =  $100 * (2)/18 = 11.1\%$

Overlap for journals published from remaining 9 countries =  $100 * (9)/40 = 22.9\%$

### Conclusion

LISTA covers more scholarly journals as compared to LISA. Both the databases have a strong preference for English language titles. Highest number of indexed scholarly periodicals is from UK and USA for both the databases. The journals published by commercial publishers are significantly high as compared to journals published by associations or societies. Only about 20% periodicals indexed by the two databases overlap. While analyzing the data in two databases it has been observed that LISA has listed 117 titles, which were duplicates. These titles should be removed from the database. LISTA lists journals which no longer are being indexed. List of such titles can be provided separately like LISA. It has also been observed that there is a variation in the name of publishers. These need to be standardized.

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