

# Information Literacy: A Scientometric Study

Mukhyadal B G

Sonwane S S

Vaishnav A A

## Abstract

*The information society calls for all people to become information literate which means that they should not only be able to recognize when information is needed but also be able to identify, locate, evaluate and use effectively information needed for decision making or fulfilling different goals. Information literacy (IL) is increasingly important in the present context of the information explosion and related uncertainties about its authenticity, validity, and reliability.*

**Keywords:** Information, Literacy, Information Literacy, Scientometric Study, LISA

## 1. Introduction

In the twenty first century, information literacy has become a crucial issue for the political, economic, social and cultural development in all countries. Information literacy is a global phenomenon today. It is information gap that divides the nations and the citizens of a nation into rich and poor. It is information literacy that helps in closing this gap. American Library Association Presidential Committee on Information Literacy (1989) not only recognized the importance of information literacy to a democratic society, but also provided a definition in terms of requisite skills: "to be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information".

## 2. Definition of the Terms

### 2.1 Information

Information can be defined as "the meaning that a human assigns to data by means of conventions used in their presentation". In other words, information is data that has given shape. It may be considered as processed data. Thus, information is data plus the meaning, which has to be a result of human action.

### 2.2 Literacy

Literacy means ability to read, write and understand native language and expressing a simple thought in writing. Literacy is reading, writing and calculating ability and making use of that ability for his/her and community's development.

### 2.3 Information Literacy

Information literacy is a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.

### **3. Scope of The Study**

The present study is based on LISA for the years of 2005-2010. i. e. for 5 years. While the volume for the year 2007 was not available.

The limitation of the study is five year volumes of LISA, i. e. year 2005 to 2010 excluding the year 2007. The subject coverage is limited to articles on Information Literacy. In those five years 362 articles on Information literacy are indexed in LISA. Hence, article only the present study covers o 362 documents.

### **4. Objectives of the Study**

The objectives of the present study are:

1. To test growth of literature;
2. To survey the subjects covered;
3. To apply Bibliometric laws to the data collected;
4. To identify carriers of information;
5. To trace country of origin & language of literature.

### **5. Methodology of the Study**

Scientometric method has been used in the present study. At very initial stage researcher has started to search the articles from the LISA on Information literacy. The time period 2005 to 2006 and 2008 to 2010 was taken into consideration. For each article one card was prepared with bibliographical details like Name of Authors, Title, Name of Journals, Year of Publication, Vol. no., Issue no., Keywords etc.

### **6. Data Analysis**

#### **6.1 Growth of Literature**

The literature covered by LISA on Information Literacy during 2005 to 2006 and 2008 to 2010 is shown in Table No. 1

**Table 1: Year wise Distribution of Publications**

<b>Year</b>	<b>No. of Article</b>	<b>Percentage</b>
2005	40	11.04
2006	54	14.92
2008	85	23.48
2009	90	24.87
2010	93	25.69
<b>Total</b>	<b>362</b>	<b>100.00</b>

It can be observed from table 1 that the initial growth in the subject was very slow up to 2006. From 2008, while from 2009 onwards a period of linear growth started. More than 74 % literature on this subject is published during last three years i.e.2008-2010.

## 6.2 Authorship Trend

Collaborative research is one of the characteristics of modern science. Since this is the era of team research, attempts were made to see the extent to which the works in the present study are the result of collaboration. The analyzed data is presented in Table No.2

**Table 2: Authorship Trend: Chronological distribution of Literature**

Authors	Years					Total No. of Authors	% of Authors	Total No. of Articles	% of Articles
	2005	2006	2008	2009	2010				
1	31	38	52	59	56	236	44.28	236	65.19
2	6	11	27	24	26	188	35.27	94	25.97
3	2	1	4	4	8	57	10.69	19	5.25
4	1	4	2	3	3	52	9.76	13	3.59
Total	40	54	85	90	93	533	100.00	362	100.00

It is evident from table 2 that single authored papers were 236 (65.19%), followed by two authored papers 94 (25.97), It can also be observed that single authored papers dominate (65.19%) multi authored papers (34.81).

## 6.3 Author's Publishing Outlets

About the outlet in which author's prefer to publish their articles; if we consider an author or group of authors as representing a particular subject interest and examine authors choice of publication, we can determine whether the scope of these subject interests are matched by individual publications.

Attempts were made to divide the literature under study according to different carriers of information as shown in table number 3.

**Table 3: Form wise Distribution**

Types	No. of Articles	Percentage
Journals	332	91.72%
Newsletter	30	8.28%
<b>Total</b>	<b>362</b>	<b>100%</b>

It is observed from table 3 that total articles published in LISA during the study period analyzed according to carriers of literature. It is found that 332 (91.72%) articles published in various journals while Newsletters are only 8.28%, which means that authors prefer to publish in journals.

#### **6.4 Geographical Distribution**

Since maximum number of contributions of the subject Information literacy belonged to journal titles, it was felt necessary to determine the geographical scattering of the journals so as to decide which is the leading nation in producing Maximum literature in this emerging discipline under study.

**Table No.4: Geographical Distribution**

<b>Country</b>	<b>No. of Article</b>	<b>Percentage</b>
UK	133	36.75
USA	125	34.53
Australia	25	6.63
South Africa	13	3.59
Germany	13	3.59
France	9	2.48
Chinna	9	2.48
Taiwan	6	1.66
Japan	4	1.1
Netherland	3	0.83
Italy	3	0.83
Turkistan	2	0.55
Tanzania	2	0.55
Slovenia	2	0.55
Iceland	2	0.55
Gundan	2	0.55
Champaign	2	0.55
Georgia	2	0.55
Spain	1	0.27
India	1	0.27
New Zealand	1	0.27
Nigeria	1	0.27
Malaysia	1	0.27
<b>Total</b>	<b>362</b>	<b>100</b>

It is clear from table 4 that nearly 133 (36.75%) Journals giving maximum articles on the subject under study are published from UK and 125 (34.53 %) journals covering articles on this subject are published from USA whereas 28.72 % from rest of the world, which means that UK & USA are the main producers of journals giving maximum articles on the subject under study.

### 6.5 Language wise distribution

Attempts were made to find out language of the journals in which the articles on information literacy have been published which is presented in table 5

**Table 5: Language wise Distribution of Journals**

<b>Language</b>	<b>No. of Articles</b>	<b>Percentages</b>
English	313	86.46
Swedish	11	3.03
French	9	2.48
German	9	2.48
Danish	7	1.94
Japanese	4	1.1
Italian	3	0.83
Icelandic	2	0.55
Slovenian	2	0.55
Chinese	1	0.27
Spanish	1	0.27
<b>Total</b>	<b>362</b>	<b>100</b>

The importance of language related to a specific field of knowledge change from time to time. English (86.46%) is most important language found during the study undertaken. The other languages Swedish, French, German, etc. are found 13.54%. Attempts were made to analyse journals covering the articles on the subject under the study according to their language of publication as shown in table Since English speaking countries and maximum journals covering the articles on the subject under the study are published in English language. It means that English language dominates the others language for article publication in the journals.

### 6.6 Ranking of Journals & Bradford Laws

The law that Bradford formulated in 1948 states essentially that if a group of journals are arranged in an order of decreasing productivity, that is, the journal that yields the most relevant articles comes first and the most unproductive in last. Thus the journals be grouped into a number of relevant articles. However, the number of journals in each zone will be increasing rapidly. The relationship between the zones is 1: a: a<sup>2</sup>.

**Table No.6 Ranking of Journals**

<b>Sr. No.</b>	<b>Name of the Journal</b>	<b>No. of Articles</b>	<b>Rank</b>	<b>Log(n)</b>	<b>Cumulative no. of Articles</b>
1	Reference Services Review	34	1	0	34
2	College & Research Libraries News	18	2	0.30103	52
3	Journal of Academic Librarianship	18	2	0.477121	70
4	Library Review	18	2	0.60206	88
5	Portal: Libraries & the Academy	9	3	0.69897	97
6	Community & junior college libraries	8	4	0.778151	105
7	IATUL Proceedings	8	4	0.845098	113
8	Australian Library Journal	7	5	0.90309	120

Ranking of journal is based on 362 article covered by 120 Journals published all over the world, which have been abstracted in LISA.

Table 6 list the ranking of Journals according to the highest number of article published. The table reveals that Reference Service Review stands at first position having 34 articles, followed by College & Research Library News, Journals of Academic Librarianship, and Library Review contributes 18 articles each. There are 55 journals which had published one article only.

## **7. Conclusion**

It is necessary to have literature on methodology of imparting information literacy. Literature should be published on various aspects of information literacy like Network literacy, Visual literacy, Computer literacy, Digital literacy.

## **References**

1. Bankapur, M.B. and Kumbar, M. (1993). Bibliometrics & Scientometric tools for measurement of productivity in agriculture research. *Indian Journal of information Library & society*, 6(3-4), 169-178.
2. Eisenberg, Michael B., Lowe, Carrie A. and Spitzer, Kathleen L. (2005). *Information Literacy: Essential skills for the information Age*. Chennai: Libraries Unlimited.

**About Authors**

**Shri Mukhyadal B G**, Research Fellow, Department of Library And Information Science, Dr. Babasaheb Ambedkar Marathwada University Aurangabad (Maharashtra).

**Dr. Sonwane Shashank S**, Assistant Professor, Department of Library And Information Science, Dr. Babasaheb Ambedkar Marathwada University Aurangabad (Maharashtra).

**Dr. (Mrs) Vaishnav A A**, Professor & Head (Rtd.) Department of Library And Information Science, Dr. Babasaheb Ambedkar Marathwada University Aurangabad (Maharashtra).