

Analysis of Google Scholar Top Rated Journals with Special Reference to the Journal “Nature”

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Abstract This paper attempts to analyze the citation analysis, growth and development of the Journal “Nature”, which is top ranked in Google Scholar Metrics. In which the journal nature has the total of 291 articles, were ranked by the impact factor with the growth analysis by the parameter of period. In which the year 2007 has the greater citation (120 articles) than other years. This study also analyses the impact factor of this journal over a period.

Keywords *Google Scholar, Metrics, Scientometric Analysis*

1. Introduction

Google Scholar allows you to search across a wide range of academic literature. It draws on information from journal publishers, university repositories, and other websites that it has identified as scholarly [15]. Google Scholar provides so many services for Researchers and Scholars. All types of documents like articles thesis books and abstracts etc. available at Google scholar. The main strengths of Google Scholar are its free access and the availability of full texts. Indeed, Google Scholar provides a free view of abstracts to articles that sometimes require a fee subscription to view the full text.

1.1. Features of Google Scholar

- **Search** diverse sources from one convenient place
- **Find** articles, thesis, books, abstracts or court opinion
- **Locate** the complete document through your library or on the web
- **Learn** about key scholarly literature in any area of research

1.2. Google Scholar Metrics

Scholar Metrics provides in its first version a table of the first one hundred journals worldwide by language of publication. These lists are ranked on the basis of the h-index of journals, calculated from the articles published in the last five years (2007-2011). That is, a journal with an h index of 12 (eg, *El Profesional de la Información*) means that it has published 12 papers with at least 12 citations each. As additional data, the median number of citations obtained by the articles that contribute to the index h is also provided. Obviously, the median value can never be less than the value of the journal's h index. Scholar Metrics uses this indicator (h5median) to rank journals with the same h-index value, which is necessary since, by taking discrete values, this indicator has little discriminatory power.

1.3. About the Nature

Nature is the world's most highly cited interdisciplinary science journal, according to the *2010 Journal Citation Reports Science Edition* (Thomson Reuters, 2011). Its Impact Factor is 36.101. The impact factor of a journal is calculated by dividing the number of citations in a calendar year to the source items published in that journal during the previous two years. It is an independent measure calculated by Thomson Reuters, Philadelphia, and USA [16].

2. Objectives of the Study

The main objective of the study is to present the growth of literature and make the quantitative assessment of Impact Factor. The specific objectives are

- To measure the year-wise growth of publications
- To measure the publisher/frequency wise publication
- To measure the impact factor of publications

3. Methodology

The articles were downloaded from the Google Scholar Metrics for the mentioned period. The records then were exported in to the basic data set created for the study. The overwhelming total of the articles (295) were in English language. Any Scientometric mapping exercise requires a customized database structure so that analytical processing can be executed.

4. Results and Discussion

4.1. Authorwise Publication

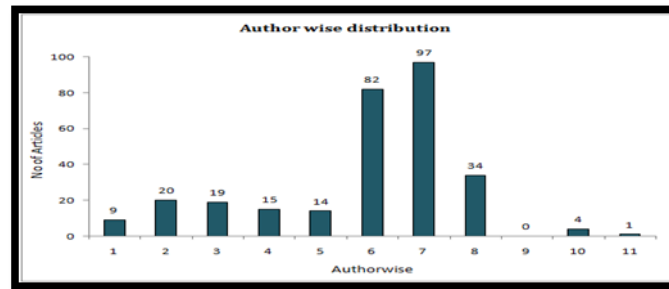
Authorship pattern among the journal "Nature" is given in the Table 1 and Figure 1. Single author contributed papers (9), Two authors contributed (20), three Authors contributed (19) and more than three authors contributed (247). More than three authored publication showed a growing trend.

Table 1: Authorwise Publication

S. No.	Author	No. of Count
1	1	9
2	2	20
3	3	19
4	4	15
5	5	14
6	6	82
7	7	97

8	8	34
9	9	0
10	10	4
11	11	1
Total		295

Figure 1: Authorwise Publication



4.2. Degree of Collaboration

The Degree of collaboration of authors by year wise is shown in Table 2. The extent of Degree of Collaboration by year wise has been calculated. Accordingly, the degree of collaboration has been calculated for the years 2001-2011. The year wise degree of collaboration falls between 0.75 and 0.91.

Table 2: Degree of Collaboration

Year	Single Author	Two Authors	Three Authors	More than Three Authors	Degree of Collaboration
2007-2010	9	20	19	247	0.96

In the present study,
 NM = 286
 NS = 9
 $C = 286 / (286 + 9) = 0.96$

Thus the degree of collaboration 0.96 which clearly indicates its dominance upon individual contribution.

4.3. Publisher/Frequency of Distribution

Table 3 and Figure 2 shows on frequency of distribution of "Nature". Volume 453 published 29 articles then Volume 445, 447, 448 published and equal ranked 22 articles, next Volume 451 distributed 21 articles and so on.

Table 3: Frequency of Distribution

Sl. No.	Publisher/Frequency of Publication	Count
1	445	22
2	446	20
3	447	22
4	448	22

5	449	15
6	450	16
7	451	21
8	452	17
9	453	29
10	454	11
11	455	17
12	456	9
13	457	10
14	458	14
15	459	9
16	460	7
17	461	8
18	462	2
19	463	3
20	464	3
21	466	2
22	467	2
23	Blank	14
Total		295

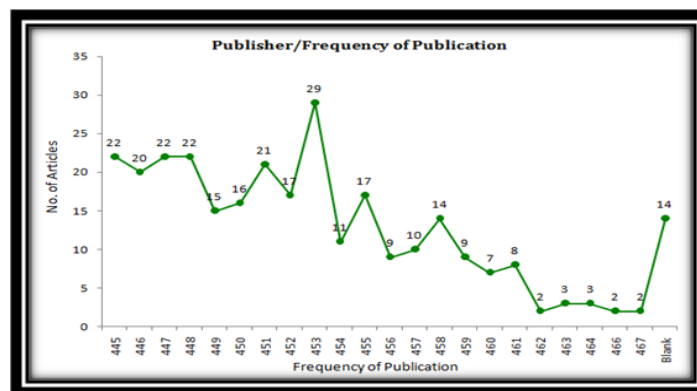


Figure 2: Frequency of Publication

4.4. Year Wise Publication of Articles

Whereas the in year 2009, the number of articles published were 120 and next to that the maximum no of articles (119) in 2008 and the least number of articles (8) were published in 2010

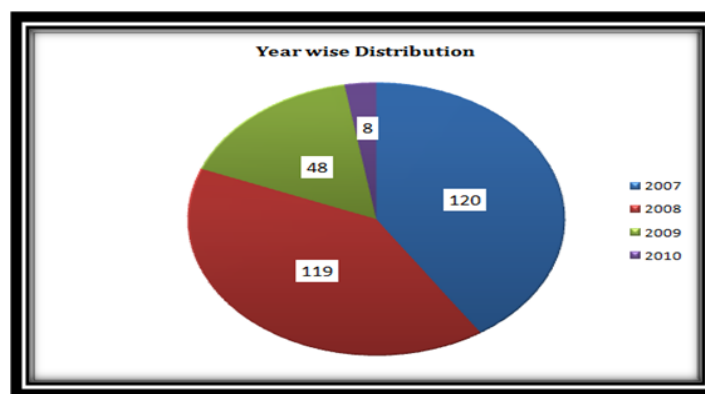


Figure 3: Year wise Publication

4.5. Citation Analysis

The citation analysis was ranging from 300 to as many as 3000 times cited. The article by P.R. Burton, et al., published in the journal of Nature in the year 2007 received 3459 citations being the highest number, while the article written by K.A Frazer et al., in the same year holds second position receiving 2373 citations. Maximum cited articles range between 300-600 times while minimum level 3000 times and above.

Table 4: Citation Analysis

Citation	Count
<300	5
> 300 <600	216
> 600 <900	55
>1000	17
>2000	1
>3000	1
Total	295

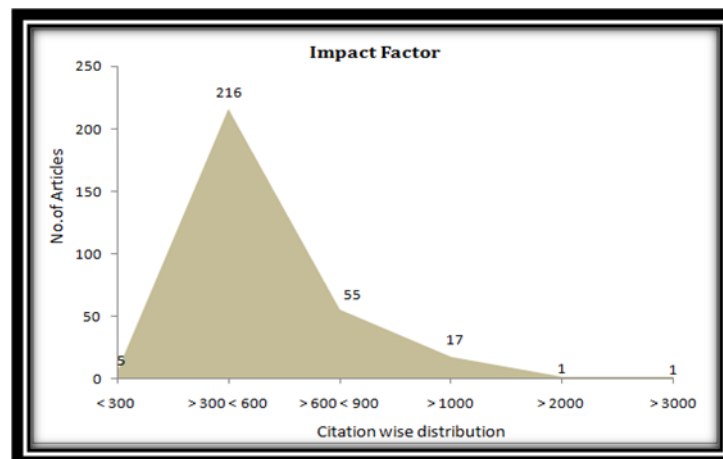


Figure 4: Citation Analysis

5. Conclusion

This present study revealed that good results in journal of nature of authorship pattern, degree of collaboration, frequency of publication, citation analysis and so on. This present study coincides with the results of price and meadows who had predicted that the future trend would be stronger for collaborative authorship. In over all view Nature is ranked the world's most cited interdisciplinary scientific journal. There are many fields of scientific research in which important new advances and original research are published as either articles or letters in *Nature*.

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Open Source Software: Boon to Digital Libraries

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Abstract ABCD – Automation of Libraries and Centers of Documentations is a relatively new Free Open Source Software available to all libraries. It caters almost all present needs of three dimensional libraries of all sizes. This software is boon to all types of libraries those are still under automation and cannot afford to purchase commercial library software. It gives excellent content management solution and Interactive library website as part of the ABCD integrated library automation suite. It has excellent indexing and retrieval features with integrated meta-search and content management system to manage online, offline digital as well as physical resources. Librarians can create their library website without knowledge of HTML programming. Many libraries in the South, esp. Latin America, and Africa are using it very effectively. This paper gives short introduction to the ABCD software and its digital library features along with illustrations.

Keywords *Open Source Software, FOSS, Digital Library Software, Library Website, Content Management Software*

1. Introduction

Library 2.0 is using web 2.0 technologies in the libraries. Open Access Initiatives and Electronic Publishing have made impact on the libraries and their services, facilities. Being free and of very high quality, open source software is often more powerful than many commercially available products. In library industry too now many initiatives like ABCD, Koha, Newgenlib, Evergreen, Greenstone, Dspace, Drupal, Plone, Eprint, Joomla etc. have been taken to provide tools for integrated library management, digital library and content management.

Library professionals all over the world are using various web communication tools like Web OPAC, Website, Web blogs, Library portal, Digital libraries, Social networking sites to cater the evolving needs of library patrons. They have to depend on different tools like automation software, digital library software, content management software, and library websites e.g. Koha, Newgenlib, Greenstone, Dspace, Joomla are more popular in India.

Unlike other library softwares, ABCD software has some special features like it gives radical openness for database structures. One can create any type of database they want and gives full text capability for digital resources. Libraries can create their interactive website in very easy way using template and linked with social networking sites, RSS feed, etc. So the libraries will find it all in one solution for their library free of cost. Western country libraries started using this software.

2. Background Information

ABCD is the acronym for a software suite for the automation of libraries and documentation centers. In French this is “Automation des Bibliothèques et Centres de Documentation” in English we can say this as Automation of libraries and Centers of Documentation. This software package provides automation functions not only for the classic libraries but also other information providers such as documentation centers, archives, museums, NGOs, etc. It is developed by BIREME (WHO, Brazil) in collaboration with the Flemish Interuniversity Council, Belgium, and uses ISIS database technology of UNESCO. This software provides flexibility and versatility on top of storage efficiency and retrieval power. Any bibliographic structure can be created and managed by this software along with non-bibliographic structures, e.g. for factual information (events, organizations) with mainly textual content.

3. Aims and Objectives

The main aim of ABCD is providing an integrated library management tool covering all main functions in a library starting from acquisition, bibliographic database management, user’s management, loans transactions, and serial control up to online end-user searching on local and external bibliographic databases and library portal/website. It allows bibliographic records copying from the main leading libraries like Library of Congress, Oxford University (UK), Yale University (USA), Boston University (USA), University of Toronto (CAN), University of Chile (CHI), Australian National University (AUS) etc. through the Z39.50 protocol, which helps libraries to maintain international standards in bibliographical information such as MARC, CEPAL and AGRIS. It also gives facility to configure any additional Z39.50 servers. Librarians normally don’t want to go in detailed programming. Therefore it is designed as a tool for librarians rather than ICT technicians. Only they have to use the ‘Formatting Language’ of ISIS which allows them to manipulate all data in their databases in a high-granularity way in order to keep full control of it without programming. It is menu driven software and gives help instruction at every step.

3.1. Technical Features

- The software is fully web-based, so can be used and managed from any current web-browser. All main functions of the library management are integrated using the same interface and databases.
- Z39.50 facility: records can be downloaded from external library catalogs / server.

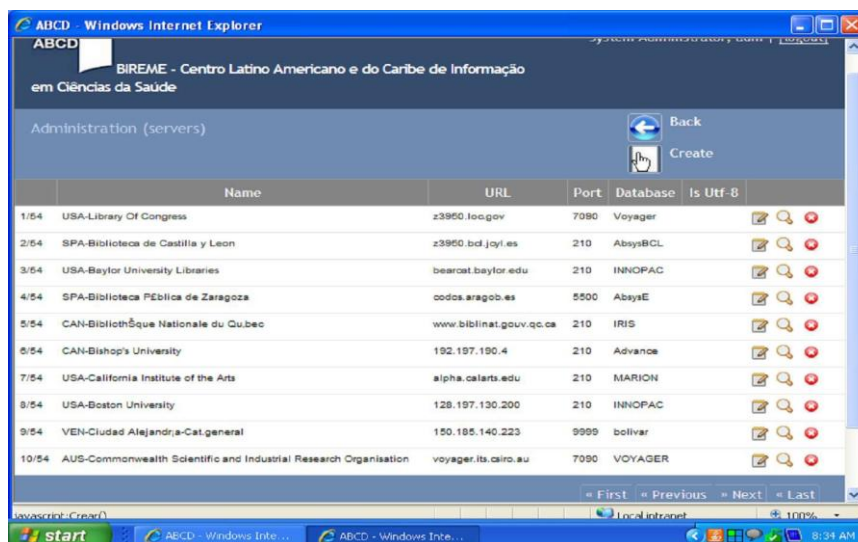


Figure 1: Server Administration Menu

- Full MARC 21 compatibility as defined by Library of Congress OPAC with simple Google-like and advanced search like Boolean combinations, truncation, field-limitation.
- Gives access to both physical and electronic documents (local as well as on the internet) and managed with same interface.
- Librarians can define, edit any new database structure and also copy database structure from existing ISIS-applications e.g. MARC, CEPAL, UNIMARC, Dublin Core, etc.
- It is available in many languages like English, French, Spanish, and Portuguese while more translations are on their way (as the software offers an easy translation function in its own interface).
- Import and export data in ISO-2709 format and text-formats
- Library portal facility: contents and bibliographic resources (both local and external) can be added easily without HTML-programming.
- Excellent serials management fully implementing the ISSN standard and union catalog function.
- Statistical reports generation with graphical presentation of any defined set of variables in any of the databases.
- Freedom of database structure: ISIS accepts any structure and includes structure-definition tools, and so does ABCD. One can create any type of database and define records and run that database through this software. One can create dead stock database, CDs database, employee database, pictures database, etc. [3].

4. Installation and Download Tips

The software is very easy to install. It contains one package of all the necessary software parts (including Apache web-server and PHP, each with their own configuration). One can download the software for Windows and Linux platforms. One has to only unzip this folder in writeable space (C drive) of the computer. Demo and manuals for new version is available on ABCD software site [2].

4.1. ABCD Modules

ABCD software has following modules. Each module has separate login and password. All modules are menu-driven and easy to operate.

1. **ABCD Central Module:** It is a cataloguing module and data entry module.
2. **ABCD Advanced Loan Module (EmpWeb)** caters the advanced loan management system.
3. **ABCD OPAC** allows us to retrieve of all defined catalogs, databases, and websites with simple, intermediate or advanced interfaces. Results can be displayed in any ISIS-format, including hyperlinks to the original documents for digital library functions, select, print, sent-to-email, bookmark in the major social networks and export to XML.
4. **ABCD Site:** A CMS (content management system) is provided for the creation of the ABCD Site using existing template. It enables to create, manage and publish the portal. Link with social networking site, RSS feeds. The site organizes information in a structure that integrates and interconnects databases created or from outside, specialist directories, events, sister institutions, libraries, full texts collection, catalogues of bibliographical resources available on the LAN, WAN or internet. It provides Online Public Access Catalogue or search tool for all types of resources.

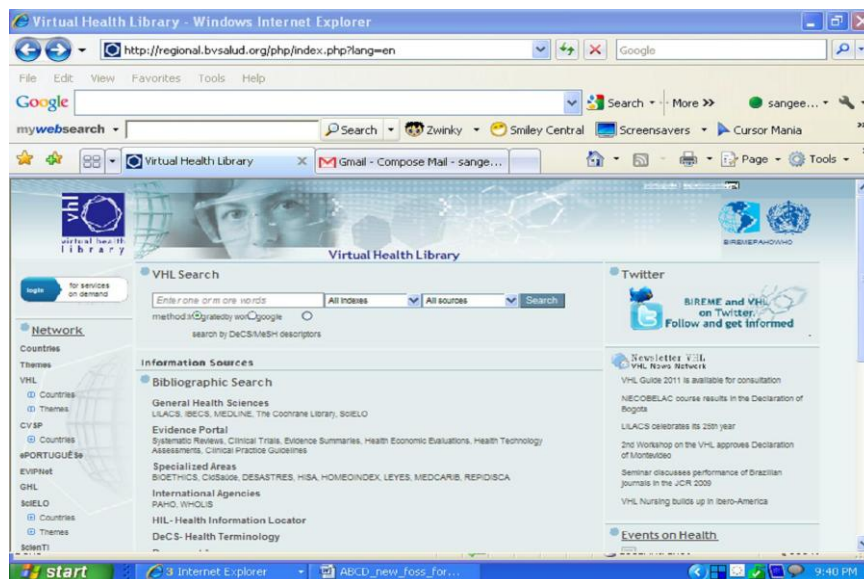


Figure 2: Example of Library Website- A Virtual Health Library

5. **ABCD Serials Control System (SeCS)** is an advanced management tool for serials or journals printed and online of all kinds in a single- or multiple libraries setup. There are following main options given:
 - **Management of Titles:** In this we can add a new serial title and its details (in the full ISSN standard). We can export titles and can send the catalogue of records in union catalogue of serials. One can search the title through a serials index.
 - **Management of Titles Plus:** allows creating and editing records with local administrative information on the serials. One can maintain issue records in this. Cardex functions are also fully present.
 - **Management of Templates:** Allows creating and editing masks or templates of serial publication schemes (e.g. 4 issues per volume etc.)
 - **Utilities:** allows user management, library management, statistical reports of serials by library and database. One can get statistical reports of serials holdings (print, online, free, paid, complimentary subscriptions, exchanged journal issues) [3].

4.2. ABCD as Digital Library Tool

According to the Digital Library Foundation (DLF) “Digital libraries are organizations that provide the resources, including the specialized staff to relate the structure, including the specialized staff to relate the structure, offer intellectual access to the interpret, distribute and preserve the integrity of and ensure the persistence over time of collection by a defined community or set of communities”.

Because of open access moment, web technology, online publishing and electronic publishing trend, extensive use of ICT in e-learning education system traditional libraries should convert to digital as the patrons demands are also changing with time. Digital libraries provide efficiency in information delivery, more economic and time saving.

According to Clifford Lynch (1995) “digital library is a system of providing a community to user with coherent access to a large organized repository of information and knowledge.”

ABCD software can operate as a digital library tool also with few limitations. Following are technical characteristics which are relevant for digital library applications:

Full-text indexing: the 'classic' ISIS since its early days - one could say from the 'prehistory' of computer science' as we are talking the 1970's! - had capabilities to extract individual words, except for non-meaningful words defined in a 'stop words'-list, from the fields of records in the database and to index these for searching into an 'Inverted File', which contains not only their record and repeated-field identifiers but also their position in the fields (allowing proximity searching e.g.) [1].

Since ABCD is based on ISIS for the data-storage and -retrieval on the one hand, and PHP for the web-interface creation on the other hand, some nice PHP-tools are embedded. E.g. FckEditor is a PHP-library offering a full HTML-editor shown below which can be embedded into a cataloging form to create full documents. Text from Word-documents also can be 'copy- pasted' into a field of an ISIS-record in ABCD by using this tool. The field will be presented as a web (HTML-) document but keeping the word-indexing technique for retrieval [4].



Technical characteristics making ABCD suitable for digital library applications.

Since this software is fully based on the ISIS-database technology [ref], it inherits the following technical characteristics which are relevant for digital library applications :

- **freedom of database structure** : ISIS records carry their individual structural description as a 'header' with themselves, unlike in relational 'table'-based databases where all records in the same table share the same structure by necessity, and therefore each record can have its own, different structure. In fact for most record-related operations there is no need to formally describe the structure even, so one could consider ISIS as 'scheme-less' records. As a consequence of this, ISIS accepts any structure and includes structure-definition tools, and so does ABCD.
- **Full-text indexing** : the 'classic' ISIS (for a non-classic new upcoming version, see infra) since its early days (one could say from the 'prehistory' of computer science') had capabilities to extract individual words (except for non-meaningful words defined in a 'stop words'-list) from the fields of records in the database and index these for searching into an 'Inverted File', which contained not only their record and field identifiers but also their position in the fields (allowing proximity searching e.g.).
- Since ABCD is based on ISIS for the data-storage and -retrieval on the one hand, and PHP for the web-interface creation on the other hand, some nice PHP-tools are embedded. E.g. FckEditor is a PHP-library offering a full HTML-editor which can be embedded into a cataloging form to create full documents. Text from Word-documents also can be 'copy-pasted' into a field of an ISIS-record in ABCD by using this tool. The field will be presented as a web (HTML-)document but keeping the word-indexing technique for retrieval.

Figure 3: Example of How to Add Text Using FCK Editor in the Field

The use of non-Latin scripts: ABCD can use non-Latin scripts (e.g. Amharic, Chinese, and Greek) as part of the web-browser capabilities. ABCD team did successful tests on ABCD dealing with Amharic records (in the Ethiopian implementations) and records in Indian languages (in the workshops) too, whereas also an Amharic and Hindi version of ABCD is being prepared [4].

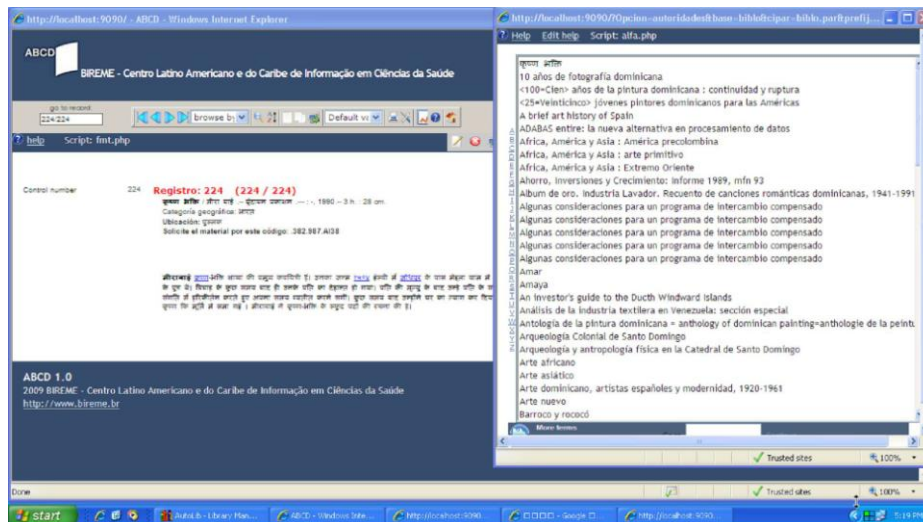


Figure 4: Example Shows Indexing of Records in Multiple Language

Further on in this article we will suggest some ideas for more fundamental extensions of the software for digital library purposes, including PDF word indexing, UNICODE and dropping storage limits for larger documents.

In view of the above described possibilities of ABCD, the software can deal with – but within the 1Mb per record limit – a multitude of non-classical library or collection types : collections of theses in higher education institutes, collections of URL's and web-sites and scientific abstracts databases.

4.3. Theses

In the example of theses given below, most of these will be stored as PDF's. ABCD now able to implement PDF-text extractor unit – index PDF's, the meta-data of these documents (in fact much better than in Greenstone where the pure XML-storage without a real database-structure of the metadata means that larger collections of metadata will slow down the system considerably).

In the illustration here, taken from the sample CEPAL-database which was already part of the original first-release of ABCD, we show part of a record (right-truncated as image) not only showing images related to the record (covers of the books) but some hyperlinks, of which the first link is a PDF-link :

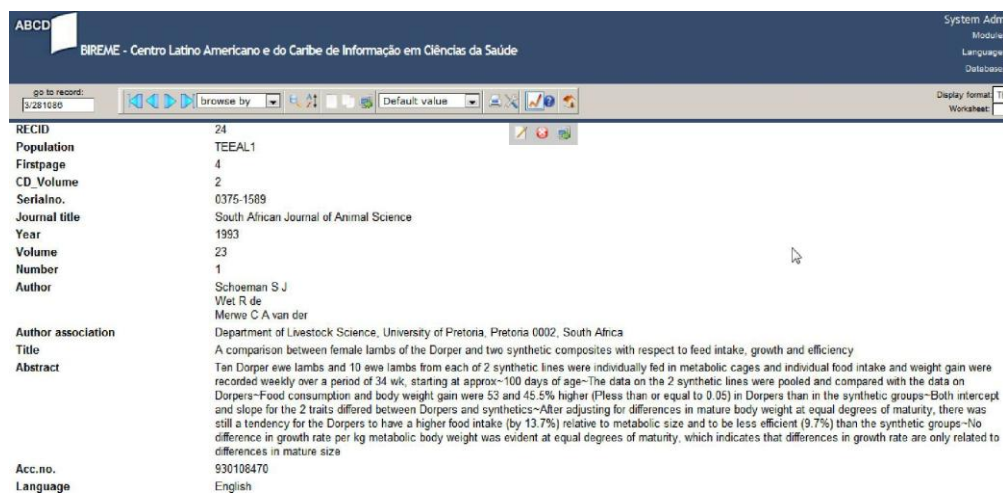
Figure 5: Example of Record Showing Images, Hyperlinks, PDF Links in the Record

4.3.1. A Collection of Web-sites The example of a web-page collection poses less problems, because web-pages mostly are not larger than the current ISIS-limits and HTML (or XHTML) is pure-text information, so can be fully contained inside an ABCD-record. ABCD (or in fact ISIS) can then fully index all words in the records as its normal operational work for retrieval.

4.3.2. Institutional Repositories We can create separated database for different electronic materials like photos, sound, videos, patents, pdf, word files and other scanned material of the institute and make them available on the OPAC or site. The facility to protect document is one better feature in ABCD. One can protect the document with password.

4.3.3. Scientific Abstracts Science community is more focused on abstracts of articles while searching the information as well written abstracts represents the core value and results of scientific research in themselves. Therefore now a day's many KPOs are busy in preparing abstract databases for publishers. If full text indexed, they provide very handy access to immense scientific knowledge stored in databases. These abstracts can always be stored and indexed by ISIS. ISIS has no difficulties in dealing with the typical larger numbers of such abstracts; we e.g. ran tests on the full TEEAL database converted to ABCD (see the illustration below) and BIREME has a large experience in doing millions of such records with ISIS-technology [4].

A sample record of TEEAL in ABCD:



Field	Value
RECID	24
Population	TEEAL1
Firstpage	4
CD_Volume	2
Serialno.	0375-1589
Journal title	South African Journal of Animal Science
Year	1993
Volume	23
Number	1
Author	Schoeman S J Wei R de Merwe C A van der
Author association	Department of Livestock Science, University of Pretoria, Pretoria 0002, South Africa
Title	A comparison between female lambs of the Dorper and two synthetic composites with respect to feed intake, growth and efficiency
Abstract	Ten Dorper ewe lambs and 10 ewe lambs from each of 2 synthetic lines were individually fed in metabolic cages and individual food intake and weight gain were recorded weekly over a period of 34 wk, starting at approx-100 days of age-The data on the 2 synthetic lines were pooled and compared with the data on Dorpers-Food consumption and body weight gain were 53 and 45.5% higher (P less than or equal to 0.05) in Dorpers than in the synthetic groups-Both intercept and slope for the 2 traits differed between Dorpers and synthetics-After adjusting for differences in mature body weight at equal degrees of maturity, there was still a tendency for the Dorpers to have a higher food intake (by 13.7%) relative to metabolic size and to be less efficient (9.7%) than the synthetic groups-No difference in growth rate per kg metabolic body weight was evident at equal degrees of maturity, which indicates that differences in growth rate are only related to differences in mature size
Acc.no.	930108470
Language	English

Figure 6: Example Shows How to Create Abstract Database

4.4. A PHP-Extension for PDF-Indexing in ABCD

ABCD team has successfully worked on a PHP-based extractor of words from PDF-documents. The idea is to store the extracted words of the PDF into the record and apply the traditional ISIS- indexing on it for retrieval and presentation of the document, with a (hyper-) link to the original PDF- formatted document.

This extension of files based on an approach similar to the one already used in ABCD for loading images into records : in fact not the images themselves but the URL's to the image files, kept within the realm of the web-server (ABCD mostly uses Apache) for access rights reasons, are stored : First an icon is presented next to a field for uploading a file.

When clicking on this upload-icon, a dialog is presented to identify the file to be uploaded (in our case it would be a PDF):

Store in:

File

Figure 7: Shows How to Upload Multimedia Files in the Field

Now, unlike with a picture (of loan system users in the example above), where simply the file has to be stored into the given location (and ABCD creates the hyperlink automatically based on this location and the file-name), in the case of the PDF-extractor, the PDF-to-text converted will be launched and actually extract all words into a text file. This text file will act as the input file for a command by which ISIS (the mx-tool of the CISIS-utilities package) can create a field of a record into the database, taking and indexing all words of that input-file [4].

The mx-utility is a full ISIS-engine running from the command-line which can take a multitude of parameters, some of them identifying the input to act on (e.g. a database, an ISO-file, the console, or in our case: a sequential file): `mx seq/1m=filename` where the `/1m` optional parameter indicates the use of the much-higher-than-standard 1 megabyte option and the filename would be the output of the PDF extractor control. ABCD avails a whole set of such command-line 'CISIS' tools for advanced database management. Everything not available from the ABCD-interface can be found here. Mx, like ISIS, can also run a process (with the 'proc=' parameter) to add the output of the processing of the input (in our case: the words from the PDF) into a field of the actual record [2, 4].

Standard ISIS-capabilities to full-text index this field then will be applied and all words of the PDF are then available for searching. The record will be displayed as text format (like Greenstone does) and the PDF itself will be available by a hyper-link (again as does Greenstone) [4].

4.5. Integration into the ABCD Meta-Search Portal

ABCD has, as one of the suite-parts, a full-fledged CMS to create a portal, integrating not only links to external information resources and messages for the users in the same web-page with the links to the OPAC's of the databases available, but also providing a simple search box in which a Google-like search statement can be sent out to interrogate all defined databases. These can be both local ISIS- databases (e.g. the catalog to the books on the shelves, but also the digital library collections!) and remote databases in ISIS-format.

ABCD search performs one by one databases and results of these searches presented separately (so not a real 'federated search'). So users could search in one effort both the physical library collections and the digital libraries, since all these are just ABCD-databases combined in the ABCD-Site. This might be a real added-value solution as compared to using e.g. Greenstone next to the classic library catalog software [4].

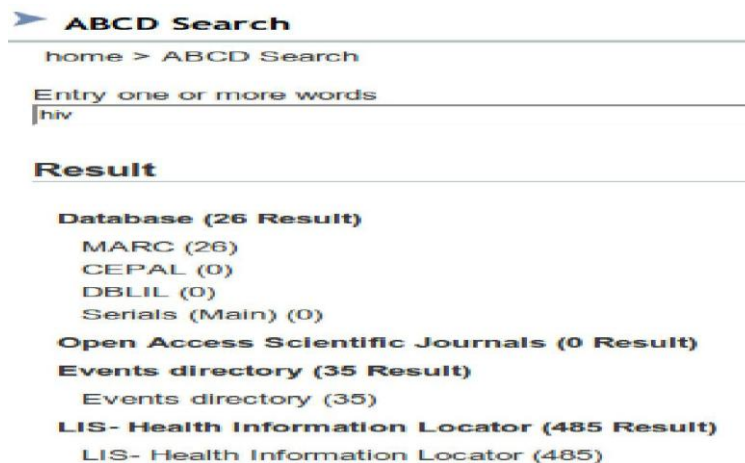


Figure 8: Advanced Search from Multiple Databases

4.6. The ABCD Site CMS as a Solution for Libraries in the South

In the South - on the WWW, the ABCD site Content Management System (CMS) is a powerful tool for libraries to create library websites and is basically meant for libraries only, as part of the ABCD library automation software suite. The ABCD site CMS, as part of the free ABCD software for library automation and digital libraries [2], supports the design of a library website for any library, irrespective of whatever software used. Many libraries in the South, esp. Latin America are using it very effectively. It does not require programming skills, only adding information in the CMS worksheets provided. Application of Web 2.0 tools and access to dynamic electronic resources is rather easy to incorporate into the ABCD Site.

The ABCD-Site (Content Management System) is an integral tool which enables libraries to create, manage and publish their site. It is a customized partial version of the Virtual Health Library (VHL)-Site, produced and maintained by BIREME (a WHO-organization in Brazil).

A Virtual Library is a model for the management of information and knowledge. It is ideal example of cooperation and convergence between institutions, systems, networks, users and resources in the local, national, regional and international information network favoring open and universal access.

As discussed before libraries can link the various databases, directories, events of institutions, sister institutes, libraries, catalogues of various resources available online paid and free and full text databases and give search to all above also links library with social networking sites and make it interactive.

The possibilities of the ABCD Site CMS are discussed below:

The ABCD-Site currently has interfaces in 4 languages and it is possible to work in any number or combinations of these languages. The websites themselves can be in any language. The content of each interface is managed separately with the use of a code and a password.

In ABCD-Site administration system there are two types of users one Administrator who has full access to all areas of ABCD whole site and another is Content manager who is restricted to only the component areas of site i.e. contents.

4.7. Possibilities of the ABCD Site CMS

The ABCD Site CMS allows librarians to build their own website themselves without any knowledge of web-technology or HTML-coding. A whole range of elements can be presented in a rather well-structured way. The own resources (catalogs, databases) will be accessible directly from the website with an integrated search facility ('metasearch') but surrounded by other resources and information from both the Web 1.0 era (links to external information) and the Web 2.0 (interaction with users). The principal elements of such a web-site are discussed here [4].

4.7.1. General Tools These are related to features available in any ABCD content management window, whether in STRUCTURE, COMPONENTS or ACCESS. Each service box helps us to design the website as per our need, e.g. to add items according to the type of contents existing that section, modify content, delete content and save the changes made in that section and records them into the interface files.

4.7.2. Item-Lists List the items according to the type of content existing in the section. The information is shown in a hierarchical way, determining how it is displayed in the ABCD site. Up and down arrows enable us to change the sequence, while left-right arrows allow positioning the item correctly in the hierarchy of the page.

4.7.3. Specific Tools These vary according to the type available for each component of the system. To illustrate the multitude of possible elements we list them here with a very brief description [5].

The Structure Area Management:

- ABCD Logo: adds URL of the logo and URL for the responsible organization providing ABCD. Local images and logos will add a lot to a 'localized' look-and-feeling of the site.
- Identification: shows the software name-ABCD that will be displayed in the banner and at the top of the administration system page. One can edit it.
- Contact: enables to add E-mail to contact the person(s) responsible for managing and administrating this ABCD software. More than one address can be registered, which in the public interface will look in the form of combo box.
- Version: makes available public interfaces in other languages. English, French, Spanish, Portuguese language interfaces are available currently in the administration module. One can add other languages too like Hindi, Marathi, Philippines, up to 9 in total.
- Institution: enables to add institutions or organization or university name, image/logo and link for reference.
- Meta-information: It enables to verify and edit labels of research services available on the public interface.
- Responsible institution: Here host institutes can enter data for contacting the institution in charge of the Site, address and phone no, etc on the site footnote.
- Meta information of the site: is the space for description of ABCD, which allows ABCD to be indexed and retrieved by web browsers. It also allows to enter description of author, keyword and description, etc. figure shows how easy to add information in the site.

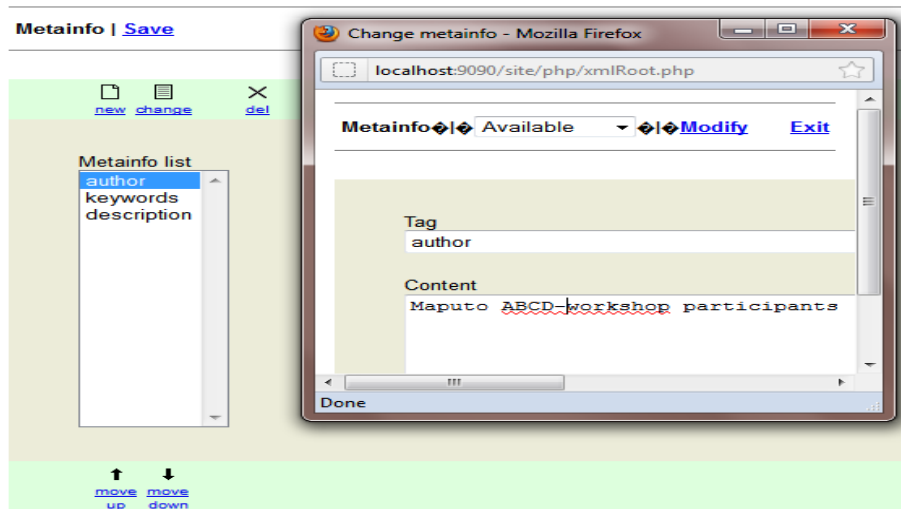


Figure 9: Shows How to Add Information in the Site

- Texts: manages the list comprising all labels and image URLs that identify common actions and areas of the ABCD site, other than the search services. A lot of localization re language and terminology is possible here.
- File manager: allows the uploading of local files to a dedicated are of the server into a directory which can be defined by the manager.
- The administrator can filter the type of files admitted to upload, modifying the variable in the configuration file. It is recommended to design a clear strategy of filing archives in this area classifying them by type. It is recommended to prepare a balanced hierarchical structure if quantity of files is more of one class, so that there are not too many files in a folder at the same level.
- Components: This part of the Site enables administration of the system via “columns” subdivided into components (or content types), with no limits as to the number of component inside each one of them in that:

Column 1 – links to other Libraries or related portals.

Column 2 – collection of ABCD information sources (local as well as non-local).

Column 3 – this column provides space for displaying highlights, news, etc.

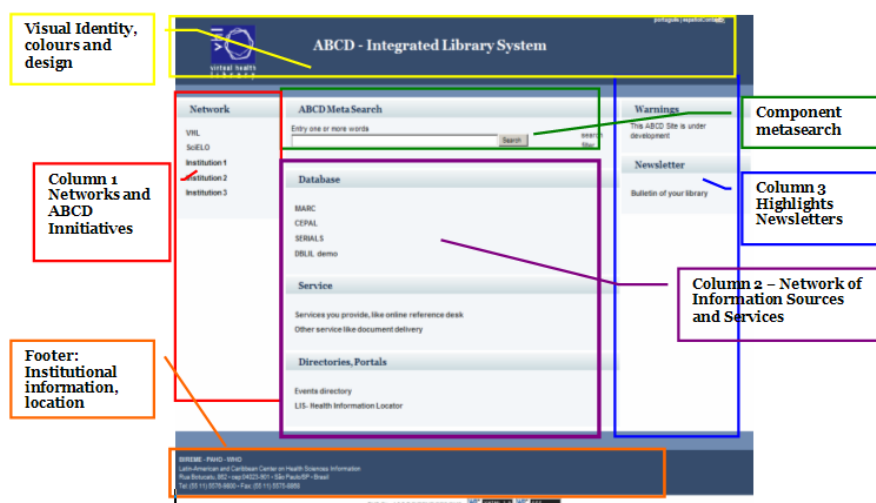


Figure 10: Three Main Components of ABCD Site

A basic list of the 3 ABCD site columns is illustrated below. By clicking on any of these, more detailed settings can be edited while the CMS itself will translate all these settings into the proper HTML-coding [5].

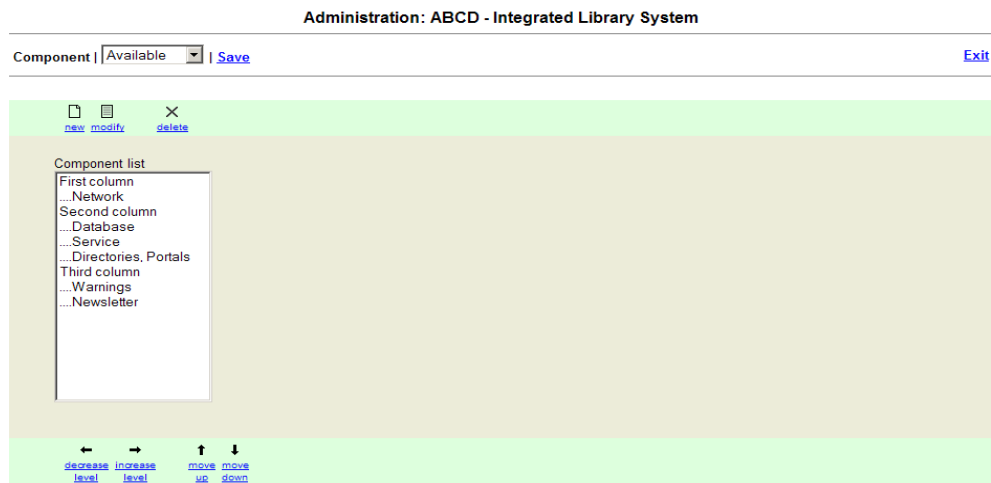


Figure 11: Columns Administration Window

4.8. Sources Collection for the Meta-Search

Information Sources is probably the most important – therefore central – part of the Site: ABCD-based resources/databases can be included into the list, making them part of the ‘meta-search’ integrated approach (the search key will be searched in all listed and active resources with results displayed separately) [5].

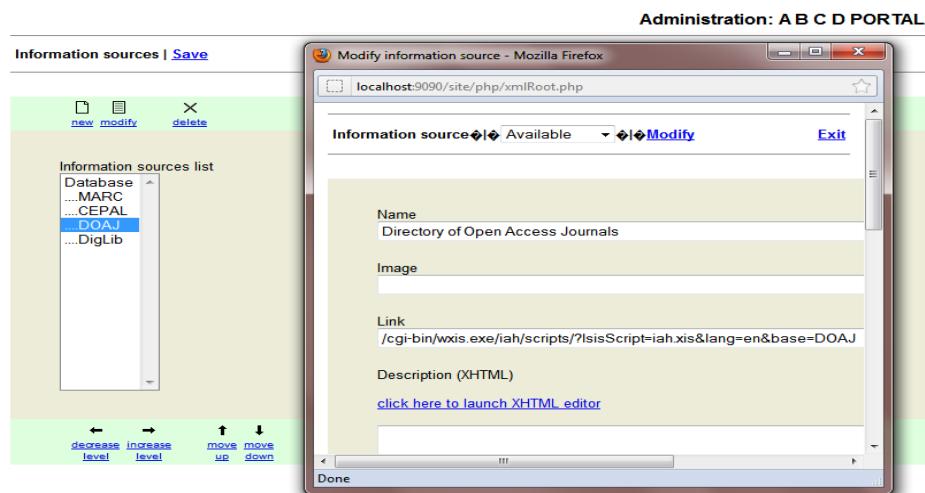


Figure 12: Shows How to Add Information Sources in the List

Its output on the site will be something like e.g.: (example taken from the Virtual Health Library)



Figure 13: VHL Advanced Search Menu

4.8.1. Portal Web Page The ABCD Site can be used to contain links to second level pages (therefore acting as a portal), edited in XHTML (with a built-in easy HTML-editor). An example from the VHL is shown here:

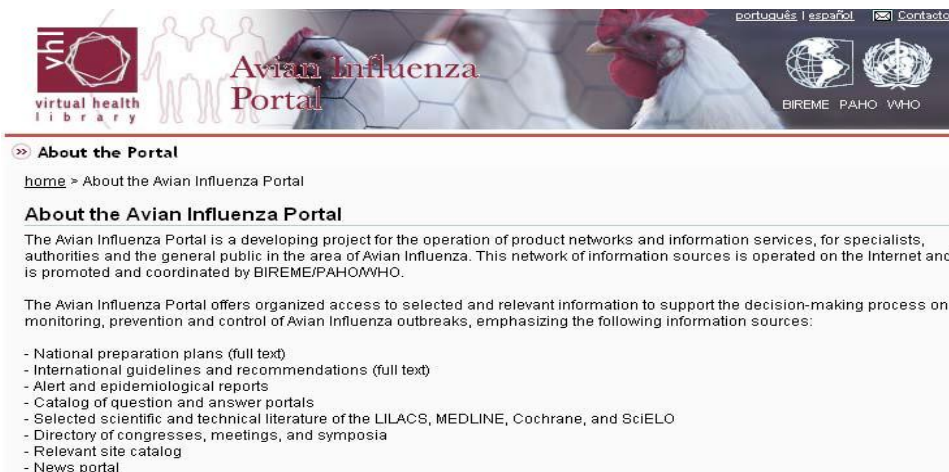


Figure 14: VHL Portal Showing External Link

4.8.2. Communities It enables to do registration to online communities like virtual communities, forums, etc.

4.8.3. Portals It enables to connect different links to other web portals related to ABCD.

4.8.4. RSS It enables to create links with news agencies that make the RSS feature available to users.

An example for a typical element in this communication area of ABCD site is shown here, as a result of copy/pasting some commonly available HTML-code for Twitter and Face book into the dedicated XHTML-editor field of the CMS (shown in right part of the illustration):

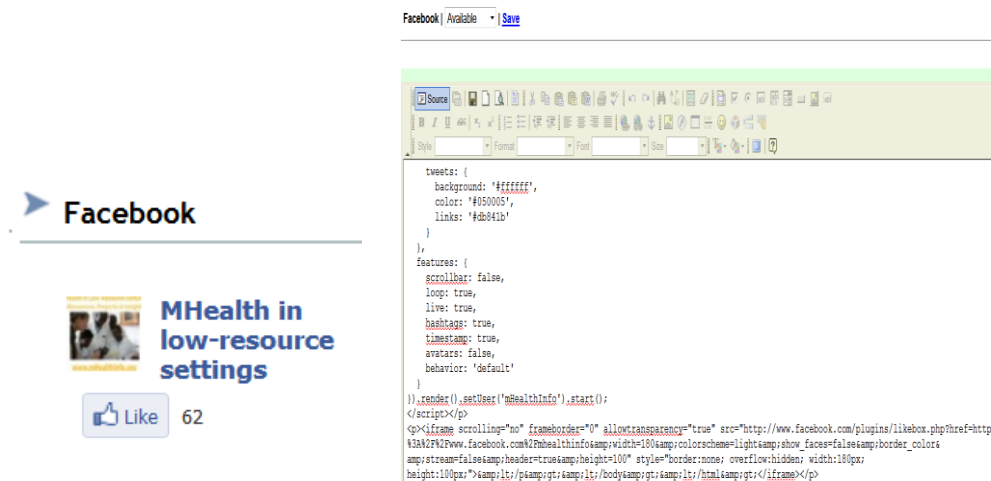


Figure 15: Shows How to Edit HTML Pages for Any Changes

4.9. ACCESS Management

This last part refers to the management of users, rights, passwords and those responsible for the administration of ABCD. Here administrator can add, edit or delete the registration of users and passwords to limit the management of the Interface.

4.10. Dealing with the Graphical Design

Since ABCD uses CSS-techniques all the way, it is relatively easy to change the overall 'style' or 'theme' of the website, e.g. by adding background pictures, colors and other graphical elements.

4.11. Some Examples

Esp. in the context of the 'Virtual Health Library' in many Latin American countries one can find many websites created with this CMS, which became integrated into ABCD as the ABCD Site CMS. Although, as is intended, with many different layouts and contents, one can mostly still easily recognize the main basic 3-parts structure of such a website with the central 'meta-search' part somehow built in.

The first example is a full-blown example of BIREME's VHL site itself.



Figure 16: Virtual Health Library

The second example is a more typical one, created in 2-hours session on the ABCD-Site in a ABCD-workshop (in this case a workshop in Maputo, Mozambique, December 2011 conducted by Egbert De Smet), where all the elements were created by the participants as a hands-on training on ABCD.

The ABCD Site Content Management System is suitable for all types of libraries in developed and developing countries. The example of Virtual Health Library and their allied libraries mentioned above illustrates its excellent functionality, presenting a wealth of information sources around its own 'metasearch' core for availing local information. As this tool is for libraries in any type of institutes and quite easy to manage and create, it can be used to publish and share all types of information and library services.

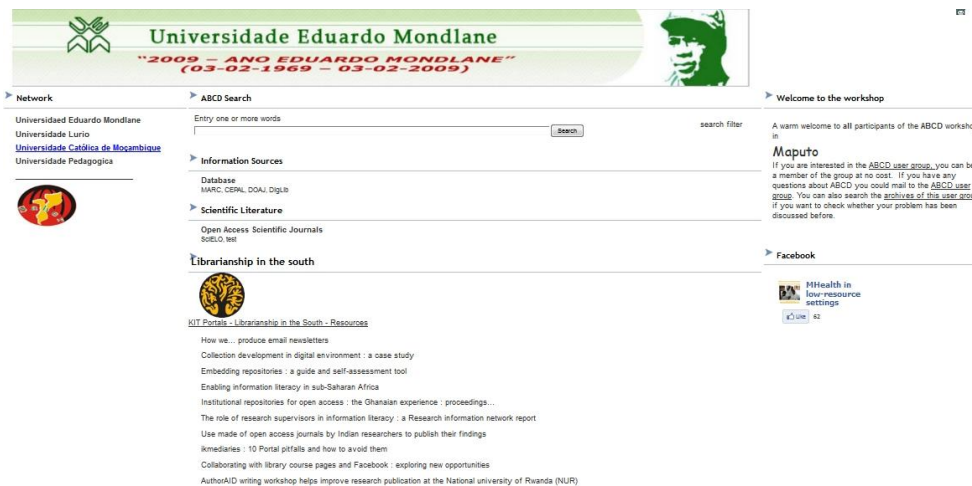


Figure 17: Universidate Eduardo Mondlane Site

4.12. ABCD as a Digital Library Tool

UNESCO is supported efforts to re-design, quite drastically, the storage and indexing engine of ISIS by replacing the 'classic' technology of ISIS by a new database (Berkeley DB, see <http://www.oracle.com/technetwork/database/berkeleydb/overview/index.html>) based on the same no-

SQL principles of ISIS where records are just numerical identifiers followed by an 'object' which could be either an ISO-2709 record, a BLOB, an XML-record etc.) and a new indexer: Lucene is widely used nowadays for full-text indexing and adds to the existing features of the ISIS-query language things like relevance ranking and search- keys without limits.

In new beta version of ABCD one can manage videos, pictures, music files, text files, pdf files and other records very easily and size of file is not a problem. One can adjust the record size as per their wish and as per the capacity of their server. So libraries can use it effectively and easily.

The team is now at final stage of using the rich Java- based libraries for extracting words from PDF- and other document-formats (see e.g. PDF Box at <http://java-source.net/open-source/pdf-libraries/pdf-box>) While Lucene has no problem indexing huge amounts of such text-files.

5. Conclusion

To cope with the all modern technologies coming up for the benefit of users and librarians, to cope up with the shrinking library budget, to cope up with online and offline resources, and to fulfill users demands, some open source softwares like ABCD are offering an excellent solution for all types of libraries along with other free open source softwares. This article covers basic information about ABCD software. Libraries can make use of this open source tool for library automation easily without any technological background, staying close to the librarian's views on library automation.

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Bibliometric Analysis of Electronic Journal of Knowledge Management

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Abstract Bibliometric analysis typically utilizes documents primarily publications or patents to analyze trends in science and innovation. A variety of data analysis methods are employed during Bibliometric analysis, including: co-authorship analysis, co-citation analysis. The study reveals that out of 197 articles joint authors contributed 124 (62.94%) articles while the rest 73 (37.06%) articles were contributed by single author. The study shows that the highest contributions were from universities with 75 (38.07%). This is followed by research institutions with 47 (23.86%), Colleges 33 (16.75%) and government departments 18 (9.14%). The remaining 24 articles (12.18%) were contributed by societies.

Keywords *Bibliometrics, Bibliography, Authorship Pattern, Source of Information, Geographical Distribution, Citation, Websites, Dissertations*

1. Introduction

During the last two decades, libraries have shown a considerable degree of momentum in the collection of building and readership programme activities, involving considerable expenditure of funds. This rapid development of libraries has, as a consequence, generated several evaluator studies on the usefulness of libraries to society. Until recently evaluations were subjective based purely on opinions expressed by an individual or group of individuals. However developments in the fields of mathematics, statistics, operations research management science, economics and systems analysis have lead to minimization of this subjectivity in evaluation. In particular, the systems analysis approach has led to the identification and application of appropriate of quantitative measuring techniques for evaluating the effectiveness and efficiency of information services offered by these librarians.

The application of quantitative technique to libraries was until recently known as statistical bibliography. It was coined by Hulme in 1923. In December 1969, in "Statistical Bibliography or Bibliometrics?" he stated, "the term [statistical bibliography] is clumsy, not very descriptive, and can

be confused with statistics itself or bibliographies on statistics” [1]. As a result of the prompting of his friend, M.G. Kendall, Pritchard suggested that the word “Bibliometrics, i.e., the application of mathematics and statistical methods to books and other media of communication” be substituted for “Statistical Bibliography” [1].

2. Bibliography

Through the centuries, the meaning of “Bibliography” has undergone a series of changes, some of which are considered here. Monks, in copying manuscripts, also made lists of the books being copied; these lists, catalogs, or inventories are considered early bibliographies. At first, there were only limited numbers of lists of books or catalogs. Georg Schneider suggested this was because of lack of titles, limited need, and a limited area. He stated that, in the narrow sense, bibliography is a “study of lists of books” and further suggested that “true [i.e., modern] bibliography” began in 1564 when Georg Willer of Augsburg published his catalog of books, a listing for sale by him at the Frankfurt fair [2]. From individual listings, bibliography progressed to the attempt to produce a “world bibliography”. Konrad Gesner (1545) made the “first attempt to collect in one list all the scholarly publications of the world in bibliographic form,” [2] resulting in his having been acclaimed the “Father of Bibliography,” [2, 3] but here, there is a difference of opinion. Archer Taylor claimed, “we may conveniently date bibliography from the activities of Johannes Trithem, a practical and theoretical bibliographer of the late fifteenth century,” but he agreed that “another man who was to display an even greater ability as a bibliographer” was Conrad Gesner. Between 1600 and 1700, bibliographies on particular subjects were published; these “are descriptive accounts of the literature of the subjects they deal with rather than catalogues of books” [3].

3. Review of Literature

Baburajan (1988) [4] described the importance of scientific journals as a primary source of current information especially in the field of Engineering and Allied Sciences. A Bibliometric analysis of Institute of Electrical and Electronics Engineers Transactions on Computers, the most authentic in its field, is made to choose 4 volumes published during 1982-1985 as samples. The main features analyzed were nature and scope of papers, distribution by subject, source of contribution by country and institution, authorship pattern, currency and length of papers.

Zhuk et al (1990) [5] discussed the scientometric study of the information flow in the field of ‘plasmochemical synthesis’ and ‘polymer membranes’ recorded through Datastar and STN. The results show that the first paper on ‘plasmochemical synthesis’ was published in 1976. The very high growth rate of the published literature is the result of an increasing interest in the two fields as well as of a theoretical basis created in the 1970's.

Ullah (1994) [6] investigated the contribution of Indian hydrologists and experts in water resources to 100 volumes of the Journal of Hydrology, for the period 1981 to 1993, with regard to major disciplines, authorship patterns of articles, research collaboration, institution-wise output and authors' identification. A large number of contributions come from Indian authors with a large proportion of the output coming from a few organizations. Indian hydrologists are principally concerned with groundwater related issues.

Ramesh Babu and Nandini Muthusamy (1998) [7] has conducted a Bibliometric study of the articles published in the “*International Library Review*” during 1987-1991.

Narendra Kumar and Ramesh Babu (1999) [8] analyzed the literature published in ‘ILA Bulletin’ during the year 1986-1996 discussing authorship pattern, citation pattern, subjects covered, ranking of the contributors, nature of contributions, bibliographic forms, of cited documents etc.,

Wagner-Dobler (2001) [9] examined the series of collaboration trends indicated through co-authorship since 1800 in mathematics, logic and physics. In physics, the share of co-authored papers expanded in the second half of the 19th Century, in mathematics in the first decades of the 20th century and in logic in the second half of the 20th century. Sub disciplines of mathematics, physics, and logic showed large differences in their respective propensities to collaborate.

Das (2001) [10] observed the collaboration pattern in computer science research in India. The study covering 1408 research papers was published in international journals on computer science contributed by Indian scientists from 1991 to 2000. The domestic and international collaboration patterns have been studied and reported that USA, Canada and Germany were the collaborative countries. Among the Asian countries, India collaborated mostly with Japan followed by Singapore and found that India had the potential of carrying out computer science research of international standard.

A study was carried out by Neeraj Verma, et al (2009) [11] to analyze the authorship pattern, subject-wise analysis of articles, citation pattern and length of articles of contributions published in the Journal of Planter's Chronicle. The study revealed that above 80% of articles contributed by single and double authors combined.

Zainab, Anyi and Anuar (2009) [12] analyzed the contributions to Malaysian Journal of Computer Science and found $n=2.85$ which shows that the Lokta's Law was applicable to the field of computer science.

Chen and Guan (2011) [13] measured the quality of research of literature published in the field of Nano biopharmaceuticals.

4. Objectives of This Study

The present study has been undertaken with the objective of analyzing the following aspects:

4.1. Analysis of Articles

- To make an analysis of articles published in Electronic Journal of Knowledge Management from 2007 to 2011
- To identify the number of contributions published during the period of study
- To determine the year wise distribution of articles
- To study the authorship pattern
- To find out the ranking of leading contributors
- To identify geographical distribution of articles
- To study the length of articles
- To study the subject coverage of articles

4.2. Analysis of Citations

- To discover the number of cited documents and the average number of references per article
- To identify the number and forms of documents cited
- To identify the year-wise distribution of cited journals
- To study the age of cited journals

5. Methodology

As stated earlier the EJKM is used as source journal for data collection. The data pertaining to Electronic Journal of Knowledge Management regarding 197 articles made from volume 5 in 2007 to volume 9 in 2011. Then they are tabulated and analyzed for making observations.

6. Analysis and Discussions

All the details such as authors, title, and year of publication, pagination and institutional affiliation etc. of all articles published form 2007 to 2011 were recorded for the following analysis.

6.1. Analysis

The analysis was done in two parts: a) Analysis of articles b) Analysis of citations.

6.1.1. Analysis of Articles

All the details such as authors, title, and year of publication, pagination, and institutional affiliation etc. of all articles published form 2007 to 2011 were recorded for the following analysis.

6.1.1.1. Distribution of Contribution

Table 1: Year Wise Distribution of Articles

Year	Vol. No.	No. of Issues	No. of Contribution	Percentage
2007	5	4	55	27.92
2008	6	2	16	8.12
2009	7	5	61	30.96
2010	8	3	33	16.75
2011	9	4	32	16.25
Total		18	197	100.00

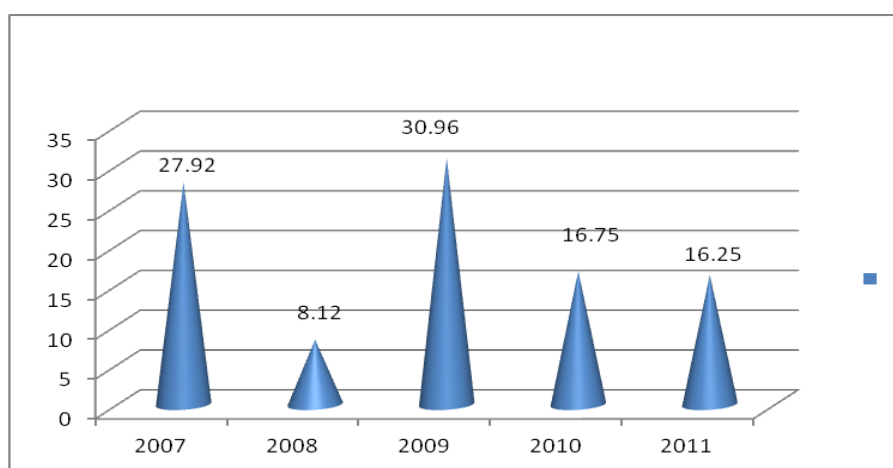


Figure 1: Year Wise Distribution of Articles

The Electronic Journal of Knowledge Management regularly publishes in international journals of repute. The journal published 197 research papers during the period of study i.e. from 2007 to 2011. The journal on an average has published 40 research papers per year. The Table 1 showed that the

maximum number of articles were published in the year 2007 and 2009 (60) and minimum in the year 2008 (16) articles [Figure 1]. The number of research publications of Electronic Journal of Knowledge Management for the period 2007-2011 has been given year wise in Table 1.

Table 2: Distribution of Articles (Issue-Wise)

Month	Volume Number					Total
	5	6	7	8	9	
January	-	-	18	-	-	18
March	14	-	11	7	8	40
April	12	6	8	10	8	44
September	9	-	13	16	10	48
December	20	10	11	-	6	47
Total	55	16	61	33	32	197

The details of the no. of papers during 2007-2011 are tabulated in Table 2. It is found that the highest no. of articles in volume No.7 and 5. The second highest position is occupied by Volume No. 8. It is followed by volume 32. The lowest number of total articles in volume 16. The contribution of articles in volume 7 and 5 were more in January and December respectively.

6.1.1.2. Subject wise Distribution of Articles

Table 3: Subject Wise Distribution of Articles

Subject	No. of Articles	Percentage
Knowledge Management	26	13.20
Implementation of knowledge management initiatives to exchange ideas	32	16.24
Frameworks for conceptualizing Knowledge Management	7	3.55
Knowledge creation and sharing mechanisms	19	9.64
Knowledge asset valuation models	13	6.60
Impact on organizational learning	15	7.61
Impact on business strategy	5	2.54
Architectures for Knowledge Management systems	21	10.66
Resourcing Knowledge Management	18	9.14
Evaluation of Knowledge Management	13	6.60
Knowledge Management and the Web and e-Business	28	14.21
Total	197	100.00

The Table 3 above showed that majority of the contributions appeared under implementation knowledge management initiatives 32 (16.24%) followed by Web and e-Business 28 (14.21%), Knowledge Management 26 (13.20%), Architectures for Knowledge Management systems 21 (10.66%), Knowledge creation and sharing mechanisms 19 (9.64%), Organizational learning 15 (7.61%) and Knowledge asset and evaluation of knowledge management 13 (6.60%).

6.1.1.3. Authorship Pattern

Table 4: Authorship Pattern

Year	Number of Authors					Total
	1	2	3	4	5 & More	
2007	22	25	7	1	-	55
2008	4	10	2	-	-	16
2009	20	26	8	5	2	61
2010	14	13	4	1	1	33
2011	13	11	5	2	1	32
Total	73	85	26	9	4	197
Percentage	37.06	43.15	13.20	4.57	2.03	100

Table 4 reveals the authorship pattern of the articles published during the period of study. Maximum numbers of articles were contributed by two authors 85 (43.15%). This is followed by single author with 73 (37.06%) articles, three authors were contributed 26 articles (13.20%) and four authors were contributed 9 articles (4.57%). The five and more authors were contributed 4 (2.03%) of the total articles.

Table 5: Year-Wise Authorship Pattern

Authorship	Year					Total	Percentage
	2007	2008	2009	2010	2011		
Single	22	4	20	14	13	73	37.06
Joint	33	12	41	19	19	124	62.94
Total	55	16	61	33	32	197	100.00

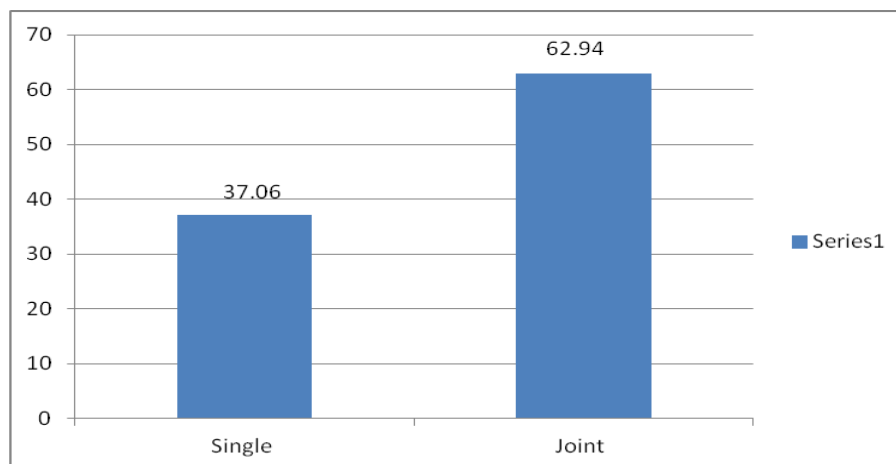


Figure 2: Authorship Pattern

The above Table-5 showed that out of 197 articles joint authors contributed 124 (62.94%) articles while the rest 73 (37.06%) articles were contributed by single author [Figure 2].

6.1.1.4. Institution Wise Contribution

Table 6: Institution-Wise Contribution of Articles

Name of the Institution	No. of Articles	Percentage
Universities	75	38.07
Colleges	33	16.75
Research Institutions	47	23.86
Govt. Departments	18	9.14
Societies	24	12.18
Total	197	100.00

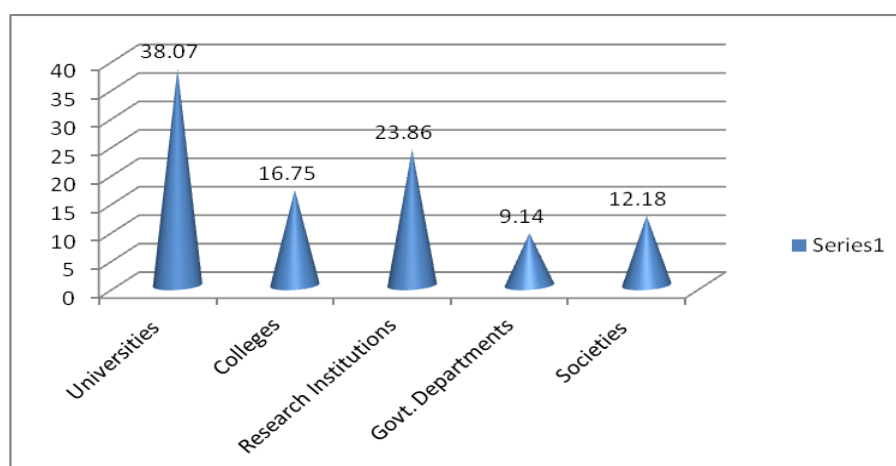


Figure 3: Institution-Wise Contribution of Articles

The highest contributions were from universities with 75 (38.07%). This is followed by research institutions with 47 (23.86%), Colleges 33 (16.75%) and government departments 18 (9.14%). The remaining 24 articles (12.18%) were contributed by societies [Figure 3].

6.1.1.5. Length of Articles

Table 7: Length of Articles

Pages	Year					Total	Percentage
	2007	2008	2009	2010	2011		
1-4	7	2	6	5	2	22	11.17
5-8	18	7	26	17	14	82	41.62
9-12	13	4	17	7	10	51	25.89
13 & more	17	3	12	4	6	42	21.32
Total	55	16	61	33	32	197	100.00

Table 7 reveals that the majority of articles 82 (41.62%) have the length of 5-8 pages followed by 51 (25.89%) articles with 9-12 pages, 42 (21.32%) articles with 13 and more pages and the remaining 22 (11.17%) articles have the length of 1-4 pages.

6.1.2. Citation Analysis

The references provided by the authors at the end of their articles are the basis of citation analysis. Citation traces a connection between two documents, one which cites and the other which is cited. Citation analysis is one of the popular methods applied to derive the following benefits.

6.1.2.1. Year-Wise Distribution of Citations

Table 8: Year-Wise Distribution of Citations

Year	No. of Citations	Percentage
2007	765	28.20
2008	207	7.63
2009	814	30.00
2010	492	18.13
2011	435	16.03
Total	2713	100.00

The above Table 8 showed that maximum number of citations 814 (30.00%) produced in 2009 followed by 765 (28.20%) citations in 2007, 492(18.13%) citations in 2010, 435 (16.03%) citations in 2011 and 207 (7.63%) in the year 2008.

6.1.2.2. Forms of Documents Cited

Table 9: Forms of Document Cited

Forms of Document	Total No. of Citation	Percentage
Journals	1092	40.25
Seminar/Conference Proceedings	635	23.41
Books	312	11.50
Websites	162	5.97
Research Reports	138	5.09
Special Publications	105	3.87
Reference Books	87	3.21
Dissertations	78	2.88
Abstracts	56	2.06
Annual Reports	48	1.77
Total	2713	100.00

The Table 9 above showed that majority of the contributors preferred journals as the source of information which occupied the top position with the highest number of citations 1092 (40.25%) of the total 2713 citations followed by seminar / conference proceedings with 635 (23.41%) citations, books with 312 (11.50%) citations, websites with 162 (5.97%) citations, research reports with 138 (5.09%) citations, special publications with 105 (3.87%) citations, reference books with 87 (3.21%) citations, dissertations with 78 (2.88%), abstracts with 56 (2.06%) citations and annual reports with 48 (1.77%). It is found that the researchers preferred journal articles more frequently for their research work, than any other types of communication channels.

Table 10: Authorship Pattern of Cited References

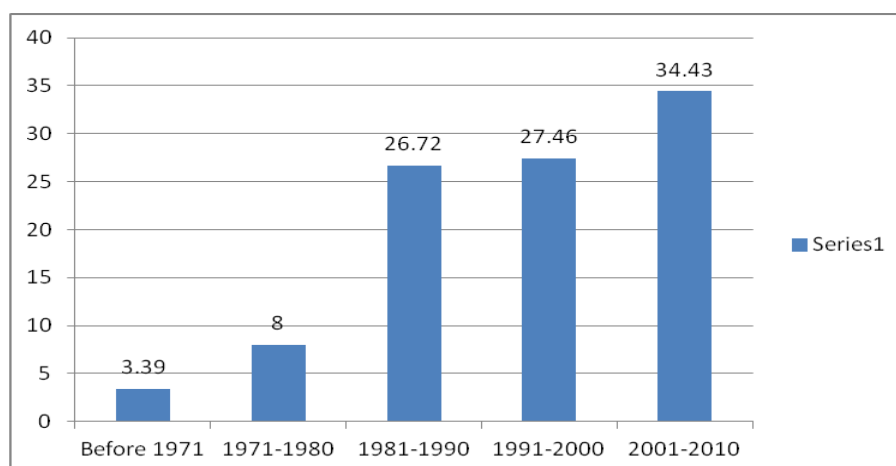
Authorship pattern	Total No. of Citation	Percentage
Single	829	30.56
Two	1142	42.09
Three	441	16.26
Four	256	9.44
Five and more	45	1.66
Total	2713	100.00

On analyzing the extent of collaborations, it was found that only 42.09% citations (1142) involved two authors followed by 30.56% citations (829) involved single author, 16.26% citations (441) involved three authors, 9.44% citations (256) involved four authors and 1.66% citations (45) involved five and more authors.

6.1.2.3. Age of Journals Cited

Table 11: Age of Journals cited

Year	No. of Citations	Percentage
Before 1971	92	3.39
1971-1980	217	8.00
1981-1990	725	26.72
1991-2000	745	27.46
2001-2010	934	34.43
Total	2713	100.00

**Figure 4: Age of Journals Cited**

The above Table 11 revealed that maximum number of citations accounted in the period 2001-2010, 934 (34.43%) followed by 27.46% in 1991-2000, 26.72% in the year 1981-1990 [Figure 4].

7. Conclusion

Bibliometric techniques are being used for a variety of purposes like determination of various scientific indicators, evaluation of scientific output, selection of journals for libraries and even forecasting the potential of a particular field. The maximum numbers of contributions are two authors with 85 (43.15 %). The present study reveals that the highest numbers of articles have appeared in the area of

implementations of knowledge management initiatives. Similarly most of the contributions are from foreign with 93.40%, while Indian contribution is very less. The study revealed that the highest contributions were from universities with 75 (38.07%). Majority of the authors preferred journals as the source of information providing the highest number of citations (40.25%). The study revealed that maximum number of citations accounted in the period 2001-2010, 934 (34.43%).

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Research Article

Open Access

Open Access Library and Information Science Journals on DOAJ: An Analytical Study

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Abstract The study of 100 open access journals in Library and Information Science is represented in the article. All these open access journals were accessed through DOAJ site and analyzed based on various parameters like Country, Languages, Subject Headings, Keywords, their accessibility and availability of Archives of online journals in LIS.

Keywords *Online Journals; Open Access; E-Journals; LIS; DOAJ*

1. Introduction

Now days the proliferation of open access online journals are in vogue which are very valuable source of information and also add very valuable supplement to scientific knowledge. Open access journals can be accessible free of cost. We can download the articles and use for academic purpose without any charge. DOAJ provides the platform for accessing the open access journals.

A. Open Access Journals

The concept of Open access is related to free access to read, download, copy, distribute, print, search, or link to the full texts of these articles [1]. Open access journals are scholarly journals that are available online to the reader "without financial, legal, or technical barriers. Open access journals are called gold road to open access [3].

B. DOAJ (Directory of Open Access Journals)

Directory of Open Access Journals is a service that provides access to quality controlled Open Access Journals. The Directory aims to be comprehensive and cover all open access scientific and scholarly journals that use an appropriate quality control system, and it will not be limited to particular languages or subject areas. Directory of Open Access Journals is hosted, maintained and partly funded by Lund University Libraries Head Office [7]. DOAJ is receiving funding from:

- Open Society Institute <http://www.osi.hu/infoprogram/>
- SPARC <http://www.arl.org/sparc/>
- SPARC Europe <http://www.sparceurope.org/>
- BIBSAM <http://www.kb.se/bibsam/>
- Axiell <http://www.axiell.se/>

2. Objectives of the Paper

- To enumerate the open access Journals on LIS on DOAJ.
- To know the year wise growth of open access LIS Journals.
- To trace the country wise distribution of open access journals of LIS on DOAJ.
- To find out the Language wise distribution of open access LIS journals on DOAJ.
- To know the accessibility of Archives of open access LIS journals on DOAJ.
- To know the usefulness and applicability of LIS Journals to other disciplines.

3. Research Methodology

DOAJ (Directory of Open Access Journals) website (<http://www.doaj.org>) is browsed for the present study. Open Access LIS Journals were searched out and 100 Journals were found on DOAJ till January 2012. Total 100 LIS open access Journals were analyzed based on Countrywise, Languages, Subject Headings, Subject Keywords and accessibility of Archives to Open Access Journals of LIS.

4. Limitation of the Study

The study is limited to LIS open access journals which are listed on Directory of Open Access Journal (DOAJ). For the present project work DOAJ data is accessible till 20/1/2012. But now till June 2012, more 26 journals have been added which is not included for the present study.

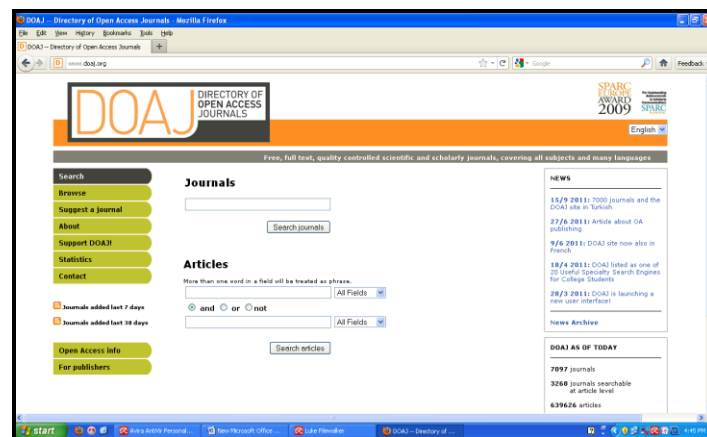


Figure 1: Snapshot of Homepage of DOAJ

5. Reason for Selecting the Topic

There has been an incessant study on the growing trends of open access journals/archives in the field of LIS [4]. The trend has given new dimensions and understanding about open access journals in LIS and other fields. However, the present study aims to highlight aspects which are related to the sources of publication and their language. It is evident to understand as which are the countries who are publishing LIS journals with open accessibility [5].

Thus, to trace this trend, the popular open access database, i.e., DOAJ is selected. The studies many further encourage the researchers to understand the country-wise and language-wise distribution of LIS OAJs on other platforms/databases [11].

6. Hypotheses

- Most of LIS Journals are open access.
- All the archives' of journals are available and accessible since its inceptions.
- The Indian contribution to Open Access journals on LIS is very less in comparisons to other country.

6.1. Analysis and Interpretations

Total 100 Open Access LIS Journals were analyzed based on Countrywide, Languages, Subject Headings, Subject keywords and accessibility of Archives of online journal and presented in the form of tables.

Table 1: List of Open Access Journals on LIS on DOAJ

S.N.	Title of E-Journals	URL	ISSN No / EISSN No	Publisher	Language	Subject Headings	Subject Keywords
1	ACIMED	http://scielo.sld.cu/scielo.php?	10249435 / 15612880	Centro Nacional de Información de Ciencias Médicas, Cuba	Spanish	Medicine (General) --- Library and Information Science	health sciences
2	AIDainformazioni : Trimestrale di Scienze dell'Informazione	http://www.aidainformazioni.it/	11210095 / 15942201	Associazione Italiana per la Documentazione Avanzata, Italy	Italian, English, French, Spanish	Library and Information Science	information sciences, documentation, knowledge management, special librarianship, archives
3	Anales de Documentación	http://revistas.um.es/analesdoc	15752437 / 16977904	Universidad de Murcia, Spain	Spanish, English, French	Library and Information Science	documentation, archival science, librarianship, documental restoration, information literacy
4	Annals of Library & Information Studies	http://nopr.niscair.res.in/handle/	09725423 / 09752404	INSDOC, NISCAIR, India	English	Library and Information Science	documentation, information systems, bibliometrics, scientometrics
5	Arabesques	http://www.abes.fr/abes/	12690589	Agence bibliographique de l'enseignement supérieur (ABES), France	French	Library and Information Science	electronic publication, library research, documentation
6	Ariadne	http://www.ariadne.ac.uk/	13613197 / 13613200	UKOLN. University of Bath, United Kingdom	English	Library and Information Science	library and information science
7	Arquivística.net	http://www.arquivistica.net/	18084826	Arquivística.net, Brazil	Portuguese, English, Spanish	Library and Information Science	information science

8	B Sides	http://ir.uiowa.edu/bsides/	21556687	University of Iowa, United States	English	Library and Information Science	library and information science, librarianship, digital libraries, Internet
9	Bibliosphere	http://www.bibliosphere.eu/	13118803	NBU Library, Bulgaria	Bulgarian	Library and Information Science	Bulgarian libraries, librarianship
10	Bibliotime Rivista Elettronica per le Biblioteche	http://www.spbo.unibo.it/bibliotime/	11283564	Università di Bologna, Italy	Italian	Library and Information Science	librarianship
11	BiD: Textos Universitaris de Biblioteconomia i Documentació	http://www.ub.edu/bid/	15755886	Universitat de Barcelona, Spain	Catalan, Spanish, English, French	Library and Information Science	library and information science
12	Bilgi Dünyası	http://www.unak.org.tr/bilgiDunyasi/index.html	13023217	Üniversite ve Araştırma Kütüphanecileri Derneği, Turkey	Turkish, English	Library and Information Science	librarianship, knowledge management, information management
13	Boletín de la Asociación Andaluza de Bibliotecarios	http://www.aab.es/joomla/index.php?	02136333	Asociacion Andaluza de Bibliotecarios, Spain	Spanish	Library and Information Science	information science
14	The Bonefolder : an e-Journal for the Bookbinder and Book Artist	http://www.philobiblon.com/bonefolder/	15556565	The Book Arts Web - Peter D. Verheyen, United States	English	Visual Arts --- Arts in general -- Library and Information Science	bookbinding, book arts, decorative techniques, education
15	Brazilian Journal of Information Science	http://www2.marilia.une.br/revistas/index.php/bjis	19811640	Universidade Estadual Paulista, Brazil	English, Portuguese	Library and Information Science	librarianship, archival science , bibliometry
16	Bulletin des bibliothèques de France - publ. par Le service des bibliothèques, (Ministère des universités) en collab. avec La direction du livre, (Ministère de la culture et de la communication)	http://bbf.enssib.fr	00062006	French School of Librarianship and Information Science, France	French	Library and Information Science	library, information science, publishing, information literacy

17	Bulletin of the American Society for Information Science and Technology	http://www.asis.org/bulletin/index.htm/	19316550	American Society for Information Science and Technology, United States	English	Library and Information Science	library and information science, technology
18	Bulletin of the Medical Library Association Continued by Journal of the Medical Library Association	http://www.pubmedcentral.nih.gov/tocrender.fcgi?	00257338	PubMed , United States	English	Medicine (General) --- Library and Information Science	health sciences, librarianship
19	Chinese Librarianship: an International Electronic Journal	http://www.iclc.us/cliej/	10894667	Internet Chinese Librarians Club, United States	English	Library and Information Science	library and information science
20	Ciência da Informação	http://www.scielo.br/scielo.php?	01001965	Instituto Brasileiro de Informacao em Ciencia e Tecnologia - IBICT , Brazil	Portuguese, Spanish, English	Library and Information Science	information science
21	Code4Lib Journal	http://journal.code4lib.org	19405758	Code4Lib , United States	English	Library and Information Science	library technology innovation
22	Collaborative Librarianship	http://www.colloborativelibrarianship.org	19437528	Regis University, United States	English	Library and Information Science	libraries, librarianship, collaboration, cooperation
23	Communications in Information Literacy	http://www.comminfolit.org	19335954	Communications in Information Literacy, United States	English	Library and Information Science	information literacy research
24	Coordinates: Online Journal of the Map and Geography Round Table of the American Library Association. Series A	http://www.sunysb.edu/libmap/coordinates.htm	15533247	American Library Association, United States	English	Library and Information Science --- Geography	maps, cartography, libraries, geography
25	Coordinates: Online Journal of the Map and Geography Round Table of the American Library Association.	http://www.sunysb.edu/libmap/coordinates.htm	15533255	American Library Association, United States	English	Library and Information Science --- Geography	maps, cartography, libraries, geography

Series B							
26	Cuadernos de Documentación Multimedia	http://revistas.ucm.es/portal/modulos.php?	15759733	Universidad Complutense Spain,	Spanish	Library and Information Science --- Computer Science	digitalization, multimedia, semantic web, digital archives, new technologies, documentation
27	Cybermetrics : International Journal of Scientometrics, Informetrics and Bibliometrics	http://www.cindoc.csic.es/cybermetrics/cybermetrics.html	11375019	Centro de Informacion y Documentacion Cientifica, Spain	English	Library and Information Science	library and information science, scientometrics, bibliometrics, informetrics, Internet
28	Cybrarians Journal	http://www.cyberarians.info/journal	16872215	cybrarians, Cairo, Egypt	Arabic	Library and Information Science	librarianship, information science, archives, libraries
29	D-Lib Magazine	http://www.dlib.org	10829873	Corporation for National Research Initiatives, United States	English	Library and Information Science	library and information science
30	Datagramazer o	http://www.dgz.org.br/	15173801	IASI - Instituto de Adaptação e Inserção na Sociedade da Informação , Brazil	Portuguese, Spanish	Library and Information Science	information flow, information structure, information society, digital inclusion, digital literacy
31	DIGITHUM	http://www.uoc.edu/digitum/eng/index.html	15752275	Fundació per la Universitat Oberta de Catalunya (FUOC), Spain	Catalan, Spanish, English	Library and Information Science --- Social Sciences	humanities, social science, digital culture, information society, ICT
32	E-JASL: The Electronic Journal of Academic and Special Librarianship	http://southernlibrarianship.icaap.org	17048532	International Consortium for the Advancement of Academic Publication, Canada	English	Library and Information Science	library and information science, academic librarianship
33	EBIB Bulletin	http://ebib.info/biuletyn/	15077187	Polish Librarians Association, Poland	Polish	Library and Information Science	librarianship, information, library technologies
34	Electronic Journal of Health Informatics	http://www.ejhi.net	14464381	Central Queensland University, Australia	English	Medicine (General) --- Library and Information Science	health informatics, e-health, information technology, health care
35	Electronic Journal of Knowledge Management	http://www.ejkm.com/	14794411	Academic Conferences International Limited , United Kingdom	English	Library and Information Science --- Business and Management	knowledge management
36	Encontros Bibli: revista eletrônica de biblioteconomia e ciência da informação	http://www.encontros-bibli.ufsc.br/	15182924	Universidade Federal de Santa Catarina, Brazil	Portuguese, Spanish	Library and Information Science	library science, information science, information management

37	Enl@ce Revista Venezolana de Información, Tecnología y Conocimiento	http://dialnet.unirioja.es/servlet/revista?	16907515	Universidad del Zulia, Venezuela	Spanish	Library and Information Science	information systems, information technology
38	European Journal of ePractice	http://www.epracticejournal.eu/	1988625X	ePractice.eu, Spain	English	Library and Information Science --- Social Sciences	eGovernment, eInclusion, eHealth, good practice exchange
39	Evidence Based Library and Information Practice	http://ejournal.library.ualberta.ca/index.php/EBLIP	1715720X	University of Alberta, Canada	English	Library and Information Science	evidence-based librarianship, evidence-based practice
40	GMS Medizin- Bibliothek- Information	http://www.eqms.de/en/journal/mbi/index.shtml	1865066X	German Medical Science, Düsseldorf, Germany	German, English	Library and Information Science	medical libraries, librarianship, information science
41	Hipertext.net	http://www.hipertext.net/web/pag100.htm	16955498	Universitat Pompeu Fabra, Spain	English, Spanish	Library and Information Science	world wide web, digital information, search engines, information architecture
42	Human IT: Tidskrift för Studier av IT ur ett Humanvetens kapligt Perspektiv	http://www.hb.se/bhs/ith/info.htm	14021501 / 1402150x	Högskolan i Borås, Sweden	Swedish, English	Library and Information Science	Internet, computers, information science
43	Infodiversidad	http://redalyc.uaemex.mx/src/inicio/homRevRed.jsp?	1514514X	Sociedad de Investigaciones Bibliotecológicas, Argentina	Spanish, Portuguese	Library and Information Science	libraries, library science, information science
44	Informação &Informação	http://www.uel.br/revistas/informacao/	14142139 / 19818920	Universidade Estadual de Londrina (UEL), Brazil	Portuguese, Spanish	Library and Information Science	information science, information management, library science, librarianship, archival science
45	Informação & Sociedade: Estudos	http://www.ies.ufpb.br	18094783	Universidade Federal da Paraíba, Brazil	Portuguese	Library and Information Science	information Science; library science; information technology
46	Información, Cultura y Sociedad	http://www.scielo.org.ar/scielo.php/script-sciserial/	15148327 / 18511740	Universidad de Buenos Aires, Argentina	Spanish, Portuguese	Library and Information Science	production of information, preservation of information, circulation of information, dissemination of information

47	Informatica Economica Journal	http://revistaie.ase.ro	14531305 / 18428088	Inforec Association, Romania	English, Romanian	Computer Science --- Library and Information Science	economic informatics, information society, information systems, IT
48	Information Research: an international electronic journal	http://informationr.net/ir/	13681613	Professor Tom Wilson, United Kingdom	English	Library and Information Science	library and information science
49	Information Technology and Disabilities	http://people.rit.edu/easi/itd.htm	10735127	E A S I: Equal Access to Software and Information, United States	English	Library and Information Science --- Education	information technology, disability, disabilities, education
50	Informing Science The International Journal of an Emerging Transdiscipline	http://inform.hu/	15479684 / 15214672	Informing Science Institute, United States	English	Media and communication --- Library and Information Science	library and information science, journalism, informing science
51	Interdisciplinary Journal of e-Learning and Learning Objects	http://ijklo.org/	15522210 / 15522237	Informing Science Institute, United States	English	Library and Information Science	knowledge, learning objects, e-learning
52	Interdisciplinary Journal of Information, Knowledge, and Management	http://www.ijikm.org/	15551229 / 15551237	Informing Science Institute, United States	English	Computer Science --- Library and Information Science	information technology, information management, knowledge management, organizational learning
53	International Journal of Digital Curation	http://www.ijdc.net/	17468256	The Digital Curation Centre, United Kingdom	English	Library and Information Science	digital curation, digital preservation, digital access
54	International Journal of Doctoral Studies	http://ijds.org/	15568881 / 15568873	Informing Science Institute, United States	English	Library and Information Science --- Computer Science	informing science, information systems, information technology, information science, information security, IT education
55	International Journal of Legal Information	http://scholarship.law.cornell.edu/ijli/	07311265	International Association of Law Libraries, United States	English	Law --- Library and Information Science	library and information science, librarianship, law libraries, legal literature, legal information research

56	International Review of Information Ethics	http://www.i-r-i-e.net/	16141687	International Center for Information Ethics, Germany	English, German, Spanish, Portuguese, French	Philosophy --- Library and Information Science	cyberethics, computer ethics, library and information science
57	Issues in Informing Science and Information Technology	http://iisit.org/	15475840 / 15475867	Informing Science Institute, United States	English	Computer Science --- Library and Information Science	informing science, information technology, transdisciplinary
58	Issues in Science and Technology Librarianship : a quarterly publication of the Science and Technology Section, Association of College and Research Libraries	http://www.istl.org/	10921206	Association of College and Research Libraries, United States	English	Library and Information Science	library and information science
59	JLIS.it	http://www.jlis.it	20381026	University of Florence, Italy	Italian, English	Library and Information Science	librarianship, archival science, bibliometry
60	Journal of Digital Information	http://journals.tdl.org/jodi	13687506	Texas Digital Library, United States	English	Library and Information Science	library and information science
61	Journal of Educational Media & Library Sciences	http://joemls.tku.edu.tw	1013090X	Tamkang University Press, Taiwan	Chinese, English	Library and Information Science --- Computer Science	library science, information science, information technology, publishing, book trade
62	Journal of Electronic Publishing	http://www.journalofelectronicpublishing.org/	10802711 / 10802711	University of Michigan Press, United States	English	Library and Information Science	library and information science, electronic publishing
63	Journal of eLiteracy	http://www.jelit.org/index.html	17454360	University of Glasgow, United Kingdom	English	Library and Information Science	e-literacy
64	Journal of Health Informatics in Developing Countries	http://www.jhidc.org/	11784407	University of Otago, New Zealand	English	Library and Information Science --- Medicine (General)	information science, medicine, health care
65	Journal of Information and Organizational Sciences	http://jios.foi.hr/index.php/jios/index	18463312 / 18469418	University of Zagreb, Croatia	English	Library and Information Science	information systems, communication
66	Journal of Information Architecture	http://journalofia.org/	19037260	Research & Education Group in IA (REG-IA),	English	Computer Science --- Library and	information architecture, shared information

				Denmark		Information Science	environments, interdisciplinary studies
67	Journal of Information Literacy	http://ojs.lboro.ac.uk/ojs/index.php/JIK/index	17505968	Chartered Institute of Library and Information Professionals, United Kingdom	English	Library and Information Science	information literacy
68	Journal of Information, Information Technology, and Organizations	http://jiito.org/	15571319 / 15571327	Informing Science Institute, United States	English	Library and Information Science --- Computer Science	information systems research
69	Journal of Library and Information Studies	http://jlis.lis.ntu.edu.tw	16067509	National Taiwan University, Taiwan	Chinese, English	Library and Information Science	computer science, information science, bibliography, documentation, archival studies
70	Journal of Library Innovation:	http://www.libraryinnovation.org/	1947525X	Western New York Library Resources Council, United States	English	Library and Information Science	libraries, academic libraries, public libraries, special libraries, creative librarianship, organizational innovation
71	Journal of Library Science Continued by 1998 Journal of Library and Information Studies	http://jlis.lis.ntu.edu.tw/index.php?	10183817	National Taiwan University, Taiwan	Chinese, English	Library and Information Science	computer science, information science, bibliography, documentation, archival studies
72	Journal of Medical Internet Research	http://www.jmir.org/	14388871	Gunther Eysenbach, Canada	English	Library and Information Science --- Medicine (General)	medicine, Internet
73	Journal of southern academic and special librarianship Continued by 2001 E-JASL: The Electronic Journal of Academic and Special Librarianship	http://southernlibrarianship.icaap.org/index.html/	1525321X	International Consortium for the Advancement of Academic Publication , Canada	English	Library and Information Science	library and information science
74	Journal of the Association for History and	http://mcel.pacificu.edu.jahc/	19375905	American Association for History and Computing , United	English	History --- Computer Science --- Library and	history, information science

	Computing			States		Information Science	
75	Journal of the Canadian Health Libraries Association	http://pubservices.nrc-cnrc.ca/rp-ps/journalDetail.jsp?	17086892	National Research Council of Canada , Canada	English, French	Library and Information Science	health information services, health literacy, health libraries, health sciences librarians
76	Journal of the European Association for Health Information and Libraries	http://www.eahil.net/journal/	18410715	European Association for Health Information and Libraries, Netherlands	English	Library and Information Science --- Medicine (General)	health information, medical libraries
77	Journal of the Medical Library Association	http://www.pubmedcentral.gov/tocrender.fcgi?	15365050	Medical Library Association, United States	English	Library and Information Science --- Medicine (General)	health sciences, librarianship
78	The journal of the Rutgers University Library.	http://jrul.libraries.rutgers.edu/index.php/jrul/index	00360473	Rutgers University, United States	English	Library and Information Science	history of libraries, history of books, New Jersey history
79	Knygotyra	http://www.leidykla.eu/mokslo-darbai/knygotyra	02042061	Vilnius University Press, Lithuania	Lithuanian, English	Library and Information Science	book science, book culture, publishing, archival studies, library science
80	Liber Quarterly : The Journal of European Research Libraries	http://liber.library.uu.nl/	14355205	Igitur, Utrecht Publishing & Archiving Services, Netherlands	English	Library and Information Science	European Research Libraries, European cultural heritage, research library networks, information services
81	Library & Information Research : Research into Practice for Information & Library Services	http://www.lirg.org.uk/lir/ojs/index.php/lir	17561086	CILIP Library & Information Research Group, United Kingdom	English	Library and Information Science	librarianship, information science, evidence-based practice
82	Library Philosophy and Practice	http://www.webpages.uidaho.edu/~mbolin/lpp.htm	15220222	University of Nebraska, Lincoln libraries, United States	English	Library and Information Science	library and information science
83	Library Student Journal	http://www.lirystudentjournal.org	19316100	University at Buffalo, United States	English	Library and Information Science	library, information science
84	Libreas : Library Ideas	http://www.libreas.eu	18607950	Institut für Bibliothekswissenschaft Berlin, Germany	German	Library and Information Science	library science, librarianship, education
85	Libres: Library and Information Science Research	http://libres.curtin.edu.au/	10586768	Curtin University of Technology, Australia	English	Library and Information Science	library and information science

	Electronic Journal						
86	Liinc em Revista	http://revista.ibict.br/liinc/index.php/liinc	18083536	Laboratório Interdisciplinar em Informação e Conhecimento (LIINC), Brazil	Portuguese, Spanish, English	Library and Information Science	information society, knowledge society, knowledge production, public policies
87	Medizin-Bibliothek-Information Continued by GMS Medizin-Bibliothek-Information	http://www.agmb.de/mbi/mbiauswahi.html	16169026	Arbeitsgemeinschaft für Medizinisches Bibliothekswesen, Germany	German	Library and Information Science	library and information science
88	MLA Forum	http://www.mlaforum.org/	15394123	Michigan Library Association, United States	English	Library and Information Science	library education, information science
89	New Knowledge Environments	http://journal.uvic.ca/index.php/INKE	19236328	University of Victoria, Canada	English	Library and Information Science	digital humanities, interface design, user experience, information literacy, information management
90	North Carolina Libraries	http://www.nci.edu/index.php/NCL	00292540	North Carolina Library Association, United States	English	Library and Information Science	libraries, librarianship, media centers, academic libraries
91	Partnership : the Canadian Journal of Library and Information Practice and Research	http://journal.lib.uoguelph.ca/index.php/perj/	19119593	The Partnership, Canada	English, French	Library and Information Science	librarians, information professionals, library workers, library and information studies
92	PERSPECTIVAS EM CIÊNCIA DA INFORMAÇÃO	http://www.eci.ufmg.br/pcionline/	14139936	Universidade Federal de Minas Gerais, Brazil	Portuguese	Library and Information Science	information science, library science, archives
93	PontodeAcesso	http://www.pontodeacesso.ici.ufba.br	19816766	Universidade Federal da Bahia	Portuguese	Library and Information Science	library and information science, information management, archival science
94	ProInflow	http://pro.inflow.cz	18042406	Masaryk University, Czech Republic	Czech, Slovak	Library and Information Science	library and information science, librarianship, information systems, information technology
95	Pustaha	http://repository.usu.ac.id/handle/	18581447	University of Sumatera Utara, Indonesia	Indonesian	Library and Information Science	library and information science, knowledge management, librarianship

96	Revista ACB	http://www.acbsc.org.br/revista/ojs/index.php	14140594	Associação Catarinense de Bibliotecários – ACB, Brazil	Portuguese	Library and Information Science	information science, librarianship, documentation, archives
97	Revista Digital de Biblioteconomia e Ciência da Informação	http://server.o1.bc.unicamp.br/seer/ojs/index.php	1678765X	Universidade Estadual de Campinas, Brazil	Portuguese, English, Spanish	Library and Information Science	information science, library science, communication science
98	Revista Española de Documentación Científica	http://redc.revistas.csic.es	02100614/19884621	Consejo Superior de Investigaciones Científicas, Spain	Spanish, English	Library and Information Science	documentation, knowledge management, bibliometrics, scientometrics, special libraries
99	Revue Électronique Suisse de Science de l'Information - RESSI	http://campus.hesge.ch/ressi/	16611802	Haute école de gestion Genève, Switzerland	French, German, English, Italian	Library and Information Science	information science, documentation, archives, Switzerland
100	REVVY : Tidsskrift for Danmarks Forskningsbiblioteksforening	http://www.dfrey.dk/	19041969	Danmarks Forskningsbiblioteksforening, Denmark	Danish, English	Library and Information Science	libraries, research libraries, university libraries, special libraries, national libraries

Table 1 enumerates the open access journals on LIS along with their URL so that any user can browse the e-journals directly by entering the URL in its address bar. In total hundreds open access journals have been found out on DOAJ.

Table 2: Year Wise Growth of Open Access LIS Journals

Year	No. of LIS Journals
1911	01
1985	02
1989	01
1991	02
1993	01
1994	01
1995	04
1996	07
1997	05
1998	07
1999	08
2000	03
2001	02
2002	06
2003	05
2004	08
2005	11
2006	11
2007	08

2009	04
2010	03
100 LIS Journals	

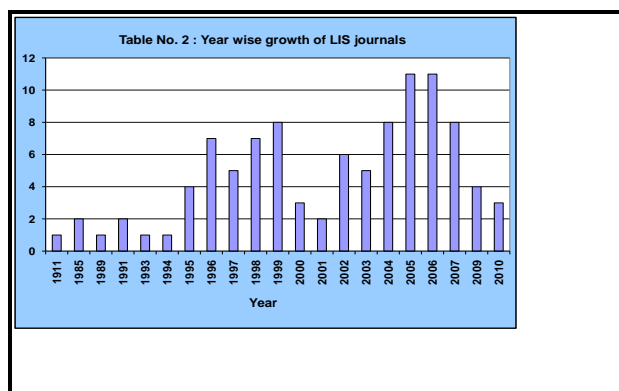


Figure 2: Year Wise Growth of LIS Journals

Table 2 and Figure 2 show the year wise growth of Open Access LIS Journals. In total 100 LIS journals which are available open access on DOAJ. Out of 100 Journals 4 journals starting from 1911, 1989, 1993 and 1994 also available open access from its inception. Maximum number of 11 journals has been started in the year 2005 and 2006 followed by 8 journals in the year 1999, 2004 and 2007.

Table 3: Country Wise Distribution of Open Access LIS Journals on DOAJ

S.N.	Name of the Country	No. of OAJ	Rank
1	Argentina	02	7
2	Australia	02	7
3	Brazil	11	2
4	Bulgaria	01	8
5	Canada	07	4
6	Croatia	01	8
7	Cuba	01	8
8	Czech Republic	01	8
9	Denmark	02	7
10	Egypt	01	8
11	France	02	7
12	Germany	04	5
13	India	01	8
14	Indonesia	01	8
15	Italy	03	6
16	Lithuania	01	8
17	Netherlands	02	7
18	New Zealand	01	8
19	Poland	01	8
20	Romania	01	8
21	Spain	09	3
22	Sweden	01	8
23	Switzerland	01	8
24	Taiwan	03	6
25	Turkey	01	8
26	United kingdom	07	4
27	United States	30	1

28	Venezuela	01	8
Total			100

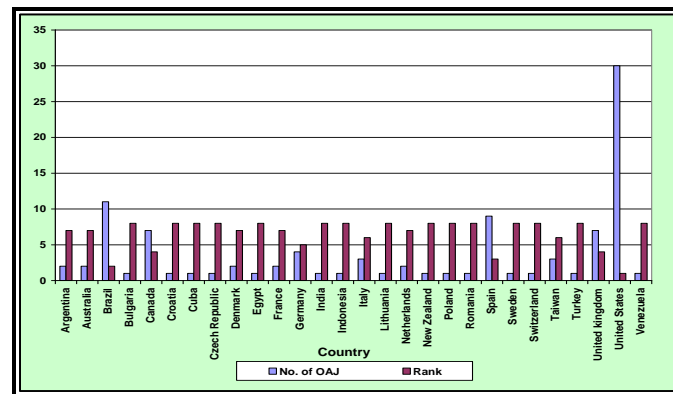


Figure 3: Analysis of Country Wise Distribution of Open Access LIS Journals

Table 3 depicts the country wise distribution of Open access LIS journals on DOAJ. United States was in 1st rank due to publication of 30 e-journals followed by UK from Germany followed by Brazil which has published 11 E-journals.

Table 4: Analysis of Language Wise Distribution of Open Access LIS Journals on DOAJ

S. N.	Languages	No. of E-journals	Rank
1	Arabic	01	5
2	Bulgarian	01	5
3	Catalan, Spanish, English	01	5
4	Catalan, Spanish, English, French	01	5
5	Chinese, English	03	3
6	Czech, Slovak	01	5
7	Danish, English	01	5
8	English	52	1
9	English, French	02	4
10	English, German, Spanish, Portuguese, French	01	5
11	English, Portuguese	01	5
12	English, Romanian	01	5
13	English, Spanish	01	5
14	French	02	4
15	French, German, English, Italian	01	5
16	German	02	4
17	German, English	01	5
18	Indonesian	01	5
19	Italian	01	5
20	Italian, English	01	5
21	Italian, English, French, Spanish	01	5
22	Lithuanian, English	01	5
23	Polish	01	5
24	Portuguese	04	2
25	Portuguese, English, Spanish	02	4
26	Portuguese, Spanish	03	3
27	Portuguese, Spanish, English	02	4
28	Spanish	04	2
29	Spanish, English	01	5
30	Spanish, English, French	01	5
31	Spanish, Portuguese	02	4

32	Swedish, English	01	5
33	Turkish, English	01	5
Total		100	

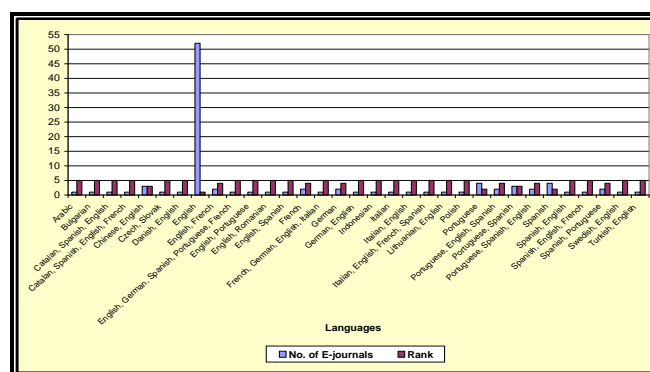


Figure 4: Analysis of Language Wise Distribution of Open Access LIS Journals

Table 4 gives the information about the publication language of the E-journals on LISc. English is the most common communication language to spread the knowledge in all over the world which is used by all 52 Open Access LIS Journals. Portuguese and Spanish language is on 2nd rank in table in which 4 journals published.

Table 5: Analysis of Subject Headings of Open Access LIS Journals on DOAJ

S.N.	Subject Headings	No. of OAJ
1	Computer Science --- Library and Information Science	08
2	Law --- Library and Information Science	01
3	Library and Information	74
4	Library and Information Science --- Business and Management	01
5	Library and Information Science --- Education	01
6	Library and Information Science --- Geography	02
7	Library and Information Science --- Social Sciences	02
8	Media and communication --- Library and Information Science	01
9	Medicine (General) --- Library and Information Science	07
10	Philosophy --- Library and Information Science	01
11	Philosophy --- Library and Information Science	01
12	Visual Arts --- Arts in general --- Library and Information Science	01

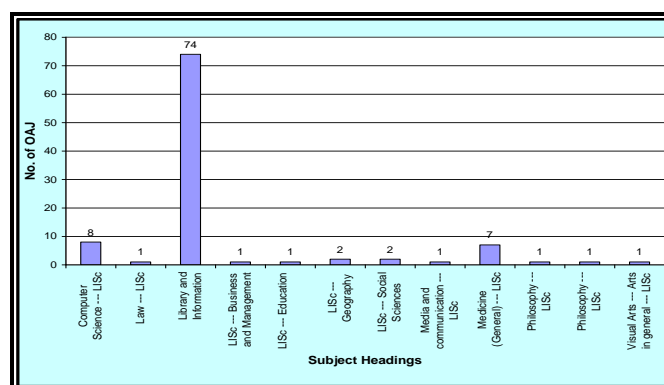


Figure 5: Analysis of Subject Headings of Open Access LIS Journals

Table 5 and Figure 5 show the interdisciplinary scope of the online-journals of LISc. LIS journals can also be used in Medicine (General), Philosophy, Media & communication, Computer-Science, Law, Business Management, Education and Geography. Under out of 100 journals pure Library and Information Science subject heading is having 74 journals. 26 open access LIS journals are having interdisciplinary scope.

Table 6: Availability of Archives of E-Journals of Open Access LIS Journals

S. N.	Name of E Journals	Starting Year	Volume No. & Issue No.												
			2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1	ACIMED	1993	V-8 (1-3)	V-9 (1-4)	V-10 (1-6)	V-11 (1-6)	V-12 (1-6)	V-13 (1-6)	V-14 (1-6)	V- 15/16 (1-6)	V- 17/18 (1-6)	V- 19/20 (1-6)	V-21 (1-4)	V-22 (1-4)	V-23 (1)
2	AIDAinformazioni : Trimestrale di Scienze dell'Informazione	2006	--	--	--	--	V-1 (1-2)	V-2 (3-4)	V-3 (5)	V-4 (6)	--	--	V-4 (7)	V-5 (8)	--
3	Anales de Documentación	1998	V3(1)	V- 4(1)	V-5 (1)	V-6 (1)	V-7 (1)	V-8 (1)	V-9 (1)	V-10 (1)	V-11 (1-2)	V-12 (1)	V-13 (1)	V-14 (1-2)	V-15 (1-2)
4	Annals of Library & Information Studies	2002	--	--	V-49 (1-4)	V-50 (1-4)	V-51 (1-4)	V-52 (1-4)	V-53 (1-4)	V-54 (1-4)	V-55 (1-4)	V-56 (1-4)	V-57 (1-4)	V-58 (1-4)	V-59 (1-4)
5	Arabesques	2000	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	V-2- 3 (1- 2)	--
6	Ariadne	2005	--	--	--	--	--	V-1 (1-4)	V-2 (1-4)	V-3 (1-4)	V-4 (1-4)	V-5 (1-4)	V-6 (1-4)	V-7 (1)	--
7	Arquivística.net	2005	V-3 (1)	V-4 (1)	V-5 (1)	V-6 (1)	V-7 (1)	V-8 (1)	V-9 (1)	V-10 (1)	V-11 (1-2)	V-12 (1)	V-13 (1)	V-14 (1-2)	V-15 (1-2)
8	B Sides	2008	V-3 (1)	V-4 (1)	V-5 (1)	V-6 (1)	V-7 (1)	V-8 (1)	V-9 (1)	V-10 (1)	V-11 (1-2)	V-12 (1)	V-13 (1)	V-14 (1-2)	V-15 (1-2)
9	Bibliosphere	1999	V-3 (1)	V-4 (1)	V-5 (1)	V-6 (1)	V-7 (1)	V-8 (1)	V-9 (1)	V-10 (1)	V-11 (1-2)	V-12 (1)	V-13 (1)	V-14 (1-2)	V-15 (1-2)
10	Bibliotime Rivista Elettronica per le Biblioteche	2009	--	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4-5 (1-2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)
11	BiD: Textos Universitaris de Biblioteconomia i Documentació	2000	--	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4-5 (1-2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)
12	Bilgi Dünyası	2000	--	--	V-3 (1-2)	V-4 (1-2)	V-5 (1-2)	V-6 (1-2)	V-7 (1-2)	V-8 (1-2)	V-9 (1-2)	V-10 (1-2)	V-11 (1)	--	--
13	Boletín de la Asociación Andaluza de Bibliotecarios		--	--	--	--	--	--	--	--	--	--	--	--	--
14	The Bonefolder : an e-Journal for the Bookbinder and Book Artist	2004	--	--	--	--	V-1 (1)	V-1-2 (1-2)	V-2-3 (1-2)	V-3-4 (1-2)	V-4-5 (1-2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V- 8/9 (2)
15	Brazilian Journal of Information Science	2007	--	--	--	--	--	--	--	V-1 (1-2)	V-2 (1-2)	V-3 (1)	V-4 (1-2)	--	--
16	Bulletin des bibliothèques de France - publ. par Le service des bibliothèques,	1985	--	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4-5 (1-2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	--	--

	(Ministère des universités) en collab. avec La direction du livre, (Ministère de la culture et de la communication)														
17	Bulletin of the American Society for Information Science and Technology	1995	V-26 (2-6)	V-27 (1-6)	V-28 (1-6)	V-29 (1-6)	V-30 (1-6)	V-31 (1-6)	V-32 (1-6)	V-33 (1-6)	V-34 (1-6)	V-35 (1-6)	V-36 (1-6)	V-37 (1-6)	V-38 (1-6)
18	Bulletin of the Medical Library Association Continued by Journal of the Medical Library Association	1911	V-88	V-89	V-90	V-91	V-92	V-93	V-94	V-95	V-96	V-97	V-98	V-99	V-100
19	Chinese Librarianship: an International Electronic Journal	1996	V-1 (1)	V-1-2 (1-2)	V-2-3 (1-2)	V-3-4 (1-2)	V-4-5 (1-2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	V-2-3 (1-2)	--
20	Ciência da Informação	1997	V-29 (1-3)	V-30 (1-3)	V-31 (1-3)	V-32 (1-3)	--	--	--	--	--	--	--	--	--
21	Code4Lib Journal	2007	--	--	--	--	--	--	--	V-1 (1)	V-1 (1-4)	V-1 (1-4)	V-1 (1-4)	V-1 (1-3)	V-1 (1)
22	Collaborative Librarianship	2009													
23	Communications in Information Literacy	2007	--	--	V-1 (1)	V-1-2 (1-2)	V-2-3 (1-2)	V-3-4 (1-2)	V-4-5 (1-2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	--	--	--
24	Coordinates: Online Journal of the Map and Geography Round Table of the American Library Association. Series A	1998	V-1-2 (1-2)	V-2-3 (1-2)	V-3-4 (1-2)	V-4-5 (1-2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	V-2-3 (1-2)	V-3-4 (1-2)	V-4-5 (1-2)
25	Coordinates: Online Journal of the Map and Geography Round Table of the American Library Association. Series B	1996	V-1-2 (1-2)	V-2-3 (1-2)	V-3-4 (1-2)	V-4-5 (1-2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	V-2-3 (1-2)	V-3-4 (1-2)	V-4-5 (1-2)
26	Cuadernos de Documentación Multimedia	2000	V-1-2 (1-2)	V-2-3 (1-2)	V-3-4 (1-2)	V-4-5 (1-2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	V-2-3 (1-2)	V-3-4 (1-2)	V-4-5 (1-2)
27	Cybermetrics: International Journal of Scientometrics, Informetrics and Bibliometrics	1997	V-4 (1)	V-5 (1)	V-6-7 (1)	--	V-8 (1)	V-9 (1)	V-10 (1)	V-11 (1)	V-12 (1)	V-13 (1)	V-14 (1)	V-15 (1)	V-16 (1)
28	Cybrarians Journal	2004	--	--	--	--	V-1 (1-3)	V-1 (1-3)	V-1 (1-3)	V-1 (1-3)	V-1 (1)	--	--	--	--

29	D-Lib Magazine	1995	V-6 (1)	V-7 (1)	V-8 (1)	V-9 (1)	V-10 (1)	V-11 (1)	V-12 (1)	V-13 (1-2)	V-14 (1-2)	V-15 (1-2)	V-16 (1-2)	V-17 (1-2)	V-18 (1-2)
30	Datagramazero	2000	--	--	--	--	--	--	--	--	--	--	--	--	--
31	DIGITHUM	1999	V-1 (2)	V-1 (3)	V-1 (4)	V-1 (5)	V-1 (6)	V-1 (7)	V-1 (8)	V-1 (9)	V-1 (10)	V-1 (11)	--	--	--
32	E-JASL: The Electronic Journal of Academic and Special Librarianship	1999	V-2 (1-2)	V-2 (3)	V-3 (1-2)	V-4 (1-3)	V-5 (1-3)	V-6 (1-2)	V-7 (3)	V-8 (3)	V-9 (3)	V-10 (1-3)	--	--	--
33	EBIB Bulletin	1999	--	--	--	--	--	--	--	--	--	--	--	--	--
34	Electronic Journal of Health Informatics	2006	--	--	--	--	--	--	V-1 (1)	V-2 (1)	V-3 (2)	V-4 (1)	V-5 (1-2)	V-6 (1-4)	V-7 (1)
35	Electronic Journal of Knowledge Management	2003	--	--	--	V-1 (1-2)	V-2 (1-2)	V-3 (1-2)	V-4 (1-2)	V-5 (1-4)	V-6 (1-2)	V-7 (1-5)	V-8 (1-3)	V-9 (1-4)	V-10 (1-2)
36	Encontros Bibli: revista eletrônica de biblioteconomia e ciência da informação	1996	V-5 (1-2)	V-6 (1-2)	V-7 (1-2)	V-8 (1-2)	V-9 (1-2)	V-10 (1-2)	V-11 (1-2)	V-12 (1)	V-13 (1-2)	V-14 (1-2)	V-15 (1-2)	V-16 (1-2)	V-17 (1)
37	Enl@ce Revista Venezolana de Información, Tecnología y Conocimiento	2004	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	--	V-3 (3)	V-4 (1-3)	V-5 (1-3)	V-6 (1-3)	V-7 (1-3)	V-8 (1-2)	--
38	European Journal of ePractice	2007	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	--	--	--	--	--	--	--	--
39	Evidence Based Library and Information Practice	2006	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	--	V-1 (1-4)	V-2 (1-4)	V-3 (1-4)	V-4 (1-3)	V-5 (1-4)	V-6 (1-4)	V-7 (1)
40	GMS Medizin-Bibliothek-Information	2006	--	--	--	--	--	V-5 (1-3)	V-6 (1-3)	V-7 (1-3)	V-8 (1-3)	V-9 (1-3)	V-10 (1-3)	V-11 (1-3)	--
41	Hipertext.net	2003	--	--	--	--	--	--	--	--	--	--	--	--	--
42	Human IT: Tidskrift för Studier av IT ur ett Humanvetenskapligt Perspektiv	1997	--	--	V-6 (3)	V-6 (4)	V-7 (1-2)	V-7-8 (1-3)	V-8-9 (2-3)	V-9 (1)	--	--	--	--	--
43	Infodiversidad	1998	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	--	--
44	Informação & Informação	1998	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	--	--
45	Informação & Sociedade: Estudos	1995	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	--	--
46	Información, Cultura y Sociedad	2002	--	S/V (5)	S/V (6-7)	S/V (8-9)	S/V (10- 11)	S/V (12- 13)	S/V (14- 15)	S/V (16- 17)	S/V (18- 19)	S/V (20- 21)	S/V (22- 23)	S/V (24- 25)	--
47	Informatica Economica Journal	1998	--	--	--	--	--	--	--	V-11 (1-3)	V-12 (1-4)	V-13 (1-4)	V-14 (1-4)	V-15 (1-4)	V-16 (1)

48	Information Research: an international electronic journal	1995	V-5 (1-4)	V-6 (1-4)	V-7 (1-4)	V-8 (1-4)	V-9 (1-4)	V-10 (1-4)	V-11 (1-4)	V-12 (1-3)	--	--	--	--	--
49	Information Technology and Disabilities	1994	V-7	V-7	V-8	V-9	V-10	V-11	--	--	V-12	--	--	--	--
50	Informing Science The International Journal of an Emerging Transdiscipline	1997	V-3 (1-4)	V-4 (1-4)	V-5 (1-4)	V-6 (1)	V-7 (1)	--	--	--	--	--	--	--	--
51	Interdisciplinary Journal of e-Learning and Learning Objects	2005	--	--	--	--	--	V-1 (18)	V-2 (11)	V-3 (11)	V-4 (19)	V-5 (26)	V-6 (24)	V-7 (26)	V-8 (4)
52	Interdisciplinary Journal of Information, Knowledge, and Management	2006	--	--	--	--	--	--	V-1 (14)	V-2 (14)	V-3 (11)	V-4 (5)	V-5 (26)	V-6 (17)	V-7 (9)
53	International Journal of Digital Curation	2006	--	--	--	--	--	--	V-1 (1-2)	V-2 (1-2)	V-3 (1-2)	V-4 (1-2)	V-5 (1-2)	V-6 (1-2)	V-7 (1-2)
54	International Journal of Doctoral Studies	2006	--	--	--	--	--	--	V-1 (6)	V-2 (6)	V-3 (8)	V-4 (8)	V-5 (9)	V-6 (9)	V-7 (17)
55	International Journal of Legal Information	2005	--	--	--	--	--	V-33 (1-3)	V-34 (1-3)	V-35 (1-3)	V-36 (1-3)	V-37 (1-3)	V-38 (1-2)	--	--
56	International Review of Information Ethics	2004	--	--	--	--	V-1/2	V-3/4	V-5/6	V-7/8	V-9/10	V-11/12	V-13/14	V-16	V-17
57	Issues in Informing Science and Information Technology	2004	--	--	--	--	V-1 (92)	V-2 (61)	V-3 (61)	V-4 (63)	V-5 (48)	V-6 (67)	V-7 (39)	V-8 (30)	V-9 (31)
58	Issues in Science and Technology Librarianship : a quarterly publication of the Science and Technology Section, Association of College and Research Libraries	1991	--	--	--	--	--	--	--	--	--	--	V (61-62)	--	--
59	JLIS.it	2010	--	--	--	--	--	--	--	--	--	--	v-1 (1-2)	v-2 (1-2)	v-3 (1)
60	Journal of Digital Information	1997	--	--	--	--	V-5 (1-4)	v-6 (1-4)	v-7 (1-2)	v-8 (1-3)	v-9 (1-2)	v-10 (1-6)	v-11 (1)	v-12 (1-3)	v-13 (1)
61	Journal of Educational Media & Library Sciences	2003	v-37 (4-3)	v-38 (4-3)	v-39 (4-3)	v-40 (1-4)	v-41 (1-2)	v-42/43 (1-4)	v-43/44 (1-2)	v-44/45 (1-4)	v-46 (1-2)	v-46 (1-2)	v-47/48 (1-4)	v-49 (1-4)	--
62	Journal of Electronic Publishing	1995	v-5 (1-4)	v-6/7 (1-3)	v-7/8 (1-3)	--	--	--	v-9 (1-2)	v-10 (1-3)	v-11 (1-3)	v-12 (1)	v-13 (1-3)	v-14 (1-2)	--
63	Journal of eLiteracy	2004	--	--	--	--	v-1 (1-2)	v-2 (1-2)	--	--	--	--	--	--	--

64	Journal of Health Informatics in Developing Countries	2007	--	--	--	--	--	--	--	V-1 (1)	V-2 (1-2)	V-3 (1-2)	V-4 (1-2)	V-5 (1-2)	V-6 (1)
65	Journal of Information and Organizational Sciences	2006	--	--	--	--	--	--	v-30 (1-2)	v-31 (1-2)	v-32 (1-2)	v-33 (1-2)	v-34 (1-2)	v-35 (1-2)	--
66	Journal of Information Architecture	2009	--	--	--	--	--	--	--	--	--	v-1 (1-2)	v-2 (1-2)	v-3 (1-2)	--
67	Journal of Information Literacy	2007	--	--	--	--	--	--	--	V-1 (1-3)	V-2 (1-2)	V-3 (1-2)	V-4 (1-2)	V-5 (1-2)	V-6 (1)
68	Journal of Information, Information Technology, and Organizations	2006	--	--	--	--	--	--	V-1 (10)	V-2 (10)	V-3 (8)	V-4 (9)	V-5 (8)	V-6 (3)	--
69	Journal of Library and Information Studies	1999	v-1 (15)	v-1 (16)	v-1 (17)	v-1 (1-3)	v-1/2 (1-4)	v-2/3 (1-4)	v-4 (1-2)	v-5 (1-2)	v-6 (1-2)	v-7 (1-2)	v-8 (1-2)	v-9 (1-2)	--
70	Journal of Library Innovation	2010	--	--	--	--	--	--	--	--	--	--	V-1 (1-2)	v-2 (1-2)	v-3 (1)
71	Journal of Library Science Continued by 1998 Journal of Library and Information Studies	1985End year98	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	V-2- 3 (1- 2)	--
72	Journal of Medical Internet Research	1999	V-2 (1-3)	V-3 (1-4)	V-4 (1-3)	V-5 (1-4)	V-6 (1-4)	V-7 (1-5)	V-8 (1-4)	V-9 (1-5)	V-10 (1-5)	V-11 (1-4)	V-12 (1-4)	V-13 (1-4)	V-14 (1-3)
73	Journal of southern academic and special librarianship Continued by 2001 E-JASL: The Electronic Journal of Academic and Special Librarianship	1999	v-2 (1-2)	V-2 (3)	V-3 (1-3)	V-4 (1-3)	V-5 (1-3)	V-6 (1-3)	V-7 (1-3)	V-8 (1-3)	V-9 (1-3)	V-10 (1)	--	--	--
74	Journal of the Association for History and Computing	1998	V-3 (1-3)	V-4 (1-3)	V-5 (1-3)	V-6 (1-2)	V-7 (1-3)	V-8 (1-2)	V-9 (1-2)	V-10 (1-3)	V-11 (1-2)	V-12 (1)	V-13 (1)	--	--
75	Journal of the Canadian Health Libraries Association	2006	--	--	--	--	V-25 (2-6)	V-26 (1-6)	V-27 (1-6)	V-28 (1-6)	V-29 (1-6)	V-30 (1-6)	V-31 (1-6)	V-32 (1-3)	v-33 (1)
76	Journal of the European Association for Health Information and Libraries	2005	--	--	--	--	--	V-1 (1-4)	V-2 (1-2)	V-3 (1-4)	V-4 (1-4)	V-5 (1-4)	V-6 (1-4)	V-7 (1-4)	V-8 (1-2)
77	Journal of the Medical Library Association	2002	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	--	--
78	The journal of the Rutgers University	2005	--	V-59	--	-v- 60	--	v-61	v-62	v-63	v-64	--	--	--	--

	Library.														
79	Knygotyra	2000	--	--	--	--	--	--	V-47/46	--	--	--	--	--	--
80	Liber Quarterly : The Journal of European Research Libraries	1999	V-10 (1-4)	V-11 (1-4)	V-12 (1-4)	V-13 (1-4)	V-14 (1-4)	V-15 (1-4)	V-16 (1-4)	V-17 (1-4)	v-18 (1-5)	v-19 (2)	v-20 (1-4)	v-21 (1-4)	v-22 (1-4)
81	Library & Information Research : Research into Practice for Information & Library Services	2007	--	V-25 (1-2)	V-26 (1-3)	V-27 (1-3)	V-28 (85- 87)	V-29 (88- 90)	V-30 (91- 93)	V-31 (97- 99)	V-32 (100- 2)	v-33 (103- 5)	v-34 (106- 8)	v-35 (109- 11)	--
82	Library Philosophy and Practice	1998	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	V-2- 3 (1- 2)	--
83	Library Student Journal	2006	--	--	--	--	--	--	v-1 (1)	v-1 (1)	--	--	--	--	--
84	Libreas Library Ideas	2005	--	--	--	--	--	v-1 (1-3)	V-2 (1-4)	V-3 (1-4)	V-4 (1-2)	V-5 (1-2)	V-6 (1-2)	V-7 (1-2)	V- 8(1)
85	Libres: Library and Information Science Research Electronic Journal	1996	V-10 (1-2)	V-11 (1-2)	V-12 (1-2)	V-13 (1-2)	V-14 (1-2)	V-15 (1-2)	V-16 (1-2)	V-17 (1-2)	v-18 (1-2)	v-19 (1-2)	v-20 (1-2)	v-21 (1-2)	v-22 (1)
86	Liinc em Revista	2005	--	--	--	--	--	v-1 (1-2)	V-2 (1-2)	V-3 (1-2)	V-4 (1-2)	V-5 (1-2)	V-6 (1-2)	V-7 (1-2)	V-8 (1)
87	Medizin-Bibliothek- Information End year: 2006 Continued by GMS Medizin-Bibliothek- Information	2001	--	v-1 (1-3)	V-2 (1-3)	V-3 (1-3)	V-4 (1-3)	V-5 (1-2)	--	--	--	--	--	--	--
88	MLA Forum	2005	V-1 (1)	V-1- 2 (1- 2)	V-2- 3 (1- 2)	V-3- 4 (1- 2)	V-4- 5 (1- 2)	V-5-6 (1-2)	V-6 (1)	V-7 (1)	V-8/9 (2)	V-1 (1)	V-1-2 (1-2)	V-2- 3 (1- 2)	--
89	New Knowledge Environments	2009	--	--	--	--	--	--	--	--	--	v-1 (1)	--	--	--
90	North Carolina Libraries	2002	--	v-59 (1)	v-60 (1-4)	v-61 (1-4)	v-62 (1-4)	v-63 (1-3)	v-64 (1-3)	v-65 (1-3)	v-66 (1-3)	v-67 (1-2)	v-68 (1-2)	v-69 (1)	v-70 (1)
91	Partnership : the Canadian Journal of Library and Information Practice and Research	2006	--	--	--	--	--	--	v-1 (1)	V-2 (1-2)	V-3 (1-2)	V-4 (1-2)	V-5 (1-2)	V-6 (1-2)	--
92	PERSPECTIVAS EM CIÊNCIA DA INFORMAÇÃO	1996	--	--	--	--	--	--	--	V-12 (2-3)	V-13 (1-3)	V-14 (1-3)	V-15 (1-3)	V-16 (1-4)	V-17 (2)
93	PontodeAcesso	2009	--	--	--	--	--	--	--	v-1 (1-2)	V-2 (1-3)	V-3 (1-3)	V-4 (1-3)	V-5 (1-3)	V-6 (1)
94	ProInflow	2009	--	--	--	--	--	--	--	--	--	--	--	--	--
95	Pustaha	2005	--	--	--	--	--	v-1 (1-2)	v-2 (1-2)	--	v-4 (1-2)	--	--	--	--
96	Revista ACB	1996	V-5 (5)	V-6 (1)	V-7 (1-2)	V-8 (1)	v-9 (1)	V-10 (1-5)	V-11 (1-2)	V-12 (1-2)	V-13 (1-2)	V-14 (1-2)	V-15 (1)	V-16 (1)	V-17 (1)
97	Revista Digital de	2003	--	--	--	V-1	V-2	V-3	V-4	V-5	V-5	V-6	V-7	V-8	v-9

	Biblioteconomia e Ciência da Informação				(1-2)	(1)	(1-2)	(1-2)	(1-2)	(2)	(2)	(2)	(2)	(2)	
98	Revista Española de Documentación Científica	1998	v-23 (1-4)	v-24 (1-4)	V-25 (1-4)	V-26 (1-4)	V-27 (1-4)	V-28 (1-4)	V-29 (1-4)	V-30 (1-4)	V-31 (1-4)	V-32 (1-4)	v-33 (1-4)	v-34 (1-4)	V-35 (1-2)
99	Revue Électronique Suisse de Science de l'Information - RESSI	2005	--	--	--	--	--	--	--	--	--	--	--	--	--
100	REVVY : Tidsskrift for Danmarks Forskningsbi blioteksforening	2004	--	--	--	--	V-27 (1-8)	V-28 (1-8)	V-29 (1-8)	V-30 (1-8)	V-31 (1-8)	V-32 (1-6)	v-33 (1-4)	v-34 (1-4)	V-35 (1-2)

Table 6 shows the archives of Open Access LIS journals available on DOAJ. Archives were finding only from the year 2000-2012 because it is not possible to find out the archives from year of starting the journals. But almost all the open access LIS journals are providing access to back issues since inception of the journals. Content facility is also available to link with archives on DOAJ. After accessing the individual e-journals website, archives were finding and it is observed that maximum number of e-journals archives is accessible.

7. Findings

- It is observed that in total hundred open access journals on Library and Information Science is listed on Directory of Open Access journals till date 20/01/2012. (Table 1)
- It has been observed that eleven open access journals on LIS have been started in the year 2005 and 2006 followed by 8 journals in the year 1999, 2004, and 2007. (Table 2)
- It has been observed that maximum number of 30 open access journals on LIS have been published by United States, hence secured 1st rank which published 11 E-journals.
- English is the most common communication language for scientific community which is used by 88 open access journals on LISc. Purely in English language journals are 52. Four open access journals on LIS are using Spanish, Catalah, French, German and Portuguese language also including English. (from Table 4)
- It has been observed that Library and Information Science Journals are also having interdisciplinary scope. LIS journals are also useful for Medicine, Philosophy, Media, and Communication, Computer Science, Law, Business Management, Education, Geography and Visual Arts. Out of 100 LIS journals 26 open access journals having interdisciplinary scope.
- It has been observed from Table 6 that each open access journals on LIS on DOAJ is giving keywords to search a particular journal.
- It has been observed that from Table 6 that most of the LIS open access journals are providing access to the archives starting from its inception.

8. Testing of Hypotheses

a) Maximum LIS Journals are Open Access

The first hypothesis is proved valid because 100 LIS journals are available open accessibly on DOAJ.

b) All the Archives' of Journals are Available and Accessible Since its Inceptions

This hypothesis is also proved valid because all the journals' archives are available and accessible since its inceptions of the journals.

c) The Indian Contribution to Open Access Journals on LIS is Very Less in Comparisons to Other Countries

The last hypothesis is also valid because from India only one LIS journal is available on DOAJ in comparisons to other states. UK is on the first rank publishing 30 Open Access LIS Journals.

9. Conclusion

Now a day's open access scientific and scholarly journals provide greater visibility to authors because every research scholars are using open access journals [2]. Research scholars are citing in their research reports which increase the impact factor of the journals, usage and also the author credibility [6]. Research scholars, Scientists, Professionals should browse the DOAJ site and access the free online journals on their Subject areas. It is also suggested that Scientists and Research Scholars should publish their research work in online open access journals for wider visibility of their research work and for greater impact factor and citation index.

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