

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

8-14-2012

Open Access Initiatives: A Boon to Academic Libraries

Anupama N. Joshi

Karnatak University,Dharwad, Karnataka, India, anuyadavaraya@gmail.com

R M. Vatnal

Karnatak University,Dharwad, Karnataka, India, vatnal@gmail.com

Manjunath G. A

Karnatak University,Dharwad, Karnataka, India, manjunathsga@gmail.com

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Library and Information Science Commons](#)

Joshi, Anupama N.; Vatnal, R M.; and A, Manjunath G., "Open Access Initiatives: A Boon to Academic Libraries" (2012). *Library Philosophy and Practice (e-journal)*. 792.

<https://digitalcommons.unl.edu/libphilprac/792>

Open Access Initiatives: A Boon to Academic Libraries

A. N. Joshi*, R. M. Vatnal**, Manjunath. G.A.***

Abstract:

The article gives the meaning and definition of open access. It throws light on emergence and development of open access initiatives and various declarations in the world. The types of open access and their characters are given. The gradual increase of journals in DOAJ is shown. The impacts of OA are various facts of the academic community and the challenges for OA are dealt. The OA initiatives in India are listed.

Key words: Open Access, Journals, Impact of OA, DOAJ, OAI in India.

1. Introduction

Academic Libraries are in a transitional phase now. The impact of information and communication technology has been very high on academic library functioning. Today, users are highly specific in their needs and are also aware of other alternatives which provide information. Hence libraries are tapping all possibilities to keep the user community satisfied.

In an academic setup research is a very important component. Current information is very essential to researchers for being updated their field. Hence they depend on scholarly journals to meet their information requirements Library being the information provider have been subscribing journals in various disciplines in accordance with the thrust of the parent institution. But with the tremendous growth of specialization in various disciplines the number of journals to be subscribed has increased. The prohibitive factor for the library is the escalating cost of the journals and the stringent library budget. This has led to a phenomenon called “Scholarly Crisis” where the libraries on one hand have to meet the users growing demands and the journal prices (be it print / or electronic) are shooting up and on other hand the library budgets are shrinking. At this juncture “Open Access” resources have dawned as boon to both the academic users and the library managers.

*Dr. A N Joshi. Senior Asst. Librarian, Prof. S S Basavanal Library, Karnatak University, Dharwad-580003 Karnataka- India. E-mail: anuyadavaraya@gmail.com

**Dr. R M Vatnal. Senior Asst. Librarian, Prof. S S Basavanal Library, Karnatak University, Dharwad-580003 Karnataka- India. E-mail: vatnal@gmail.com

***Manjunath G A. Guest Asst Librarian, Prof. S S Basavanal Library, Karnatak University, Dharwad-580003 Karnataka- India. E-mail: manjunathsga@gmail.com

2. Open Access of Scholarly Literature: Meaning and Definition

Open Access (OA) is free, immediate, permanent online access to the full text of research articles for anyone, web wide. Open access helps to ensure long-term access to scholarly articles. Unlike articles that are licensed in traditional article databases, libraries can create local copies and institutional repositories of these resources. Libraries, by working together to make repositories of open access literature, can ensure continued access to these scholarly publications into the distant future. Open Access (OA) means that electronic scholarly articles are available freely at any point of use. In general, Open Access (OA) publications are those made freely available online to anyone anywhere, with no charges imposed for access.

According to ‘**Budapest Open Access Initiative**’ (*BOAI*) the concept of Open Access refers to; "World-wide electronic distribution of the peer-reviewed journal literature, completely free and unrestricted access to it by all scientists, scholars, teachers, students, and other curious minds."

The ‘**Bethesda Statement**’ (2003) defines; “Open access, where "The author(s) and copyright holder(s) grant(s) to all users a free, irrevocable, worldwide, perpetual right of access to, and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship as well as the right to make small numbers of printed copies for their personal use".

‘**Harnad**’ (2008) has described the Open Access as; "Information, which is Free, immediate, permanent, full-text, on-line and accessible". He suggests three main justifications of OA: "to maximise the uptake, usage, applications and impact of the research output of your university; to measure and reward the uptake, usage, applications and impact of the research output of your university (research metrics) and, to collect, manage and showcase a permanent record of the research output and impact of your university".

‘**Peter Suber**’ (2010) describes, "Open-access literature is digital, online, free of charge, and free of most copyright and licensing restrictions". Suber also states that open access contents are not restricted only to peer-reviewed research articles; they can be in any formats from texts and data to software, audio, video, and multi-media. Although the OA movement focuses on peer-reviewed research articles and their preprints, OA can also apply to non-scholarly content, like music, movies, and novels, even if these are not the focus of most OA activists .

Commonly known as the three Bs, the Budapest, Berlin, and Bethesda public statements represent the most highly regarded definitions of OA, and all agree on the essentials. Though differing slightly, the statements essentially note that OA allows users to read, download, copy, distribute, print, search, or link to the full text of works, permitting use for any lawful purpose, as long as Internet access to the material is possible. OA is not applicable to content for which authors expect financial compensation and functions within current copyright law by allowing authors to either retain the right to post their papers on institutional servers (“open archiving”) or transfer rights to publishers who allow free access to their work.

3. Emergence and Development of Open Access;

After vibrant activities in academic field causing thrills in the world of scholarly publishing open access found to formal origin in 2001 through Budapest open access. These are few groups that took initiatives towards open access.

3.1 Budapest Open Access Initiative (BOAI) (2001): The Budapest Open Access Initiative (BOAI) took place in 2001, where the term "open access" was coined and the two strategies of Green OA (self-archiving) and Gold OA (open access publishing) were devised (Poynder, 2010).The "golden road" of OA journal publishing is where journals provide OA to their articles (either by charging the author-institution for refereeing/publishing outgoing articles instead of charging the user-institution for accessing incoming articles, or by simply making their online edition free for all). The "green road" of OA self-archiving is where authors provide OA to their own published articles, by making their own e-prints free for all (Harnad 2008).

3.2 Bethesda statement (2003); Bethesda Statement on Open Access Publishing in 2003, which continued to promote a gradual transition to open access publishing within the biochemical community. It stated that "open access will be an essential component of scientific publishing in the future and that works reporting the results of current scientific research should be as openly accessible and freely useable as possible. Libraries and publishers should make every effort to hasten this transition in a fashion that does not disrupt the orderly dissemination of scientific information" (Bethesda Statement on Open Access Publishing, 2003).

3.3 Berlin Declaration. (2003); In 2003, the Berlin Declaration further emphasised on the Open Access to Knowledge and stated, "Our mission of disseminating knowledge is only half complete if the information is not made widely and readily available to society. New possibilities of knowledge dissemination not only through the classical form but also increasingly through the open access paradigm via the Internet have to be supported" (Berlin Declaration on Open Access, 2003).

3.4 Organisation for Economic Co-operation and Development's (OECD) Declaration (2004) ; Other endeavours shaping the open access initiative are Organisation for Economic Co-operation and Development's (OECD) Declaration on Access to Research Data From Public Funding, 2004, as well as the International Federation of Library Associations and Institutions' (IFLA) Statement on Open Access to Scholarly Literature and Research Documentation, 2004 (Christian, 2008).

3.5 Brazil Salvador Declaration(2005) ; In 2005, Brazil proclaimed the Salvador Declaration on Open Access at the Ninth World Congress on Health and Information Libraries and urged governments to make Open Access its high priority and appealed to all stakeholders internationally to work together to avail scientific information openly and freely accessible to everyone (Declaration of Salvador, 2005). Thus open access that we see today has impetus from diverse international organisations.

4. Types of Open Access

OA can be delivered in three ways:

4.1 'green route ': the author can self-archive at the time of submission of the publication (the 'green' route) whether the publication is grey literature (usually internal non-peer-

reviewed), a peer-reviewed journal publication, a peer-reviewed conference proceedings paper or a monograph. The 'green' route makes publications available freely in parallel with any publication system but is not, itself, publishing.

4.2 'gold route': the author or author institution can pay a fee to the publisher at publication time, the publisher thereafter making the material available 'free' at the point of access (the 'gold' route). The two are not, of course, incompatible and can co-exist.

4.3 'hybrid route'– some times called Paid Open Access, refers to subscription journals with open access to individual articles usually when a fee is paid to the publisher or journal by the author, the author's organization, or the research funder. Some universities or libraries have a pool of funding available for hybrid journal publications or sometimes funding is written into grant applications for open access in hybrid journals, though these are not common instances. Some examples of hybrid open access are: iOpenAccess by Taylor Francis, Online Open by Wiley, or Sage Open by Sage. For a full list visit Publishers with Paid Options for Open Access from SHERPA/RoMEO .

5. Characteristics:

Some of the main characteristics of OA are:

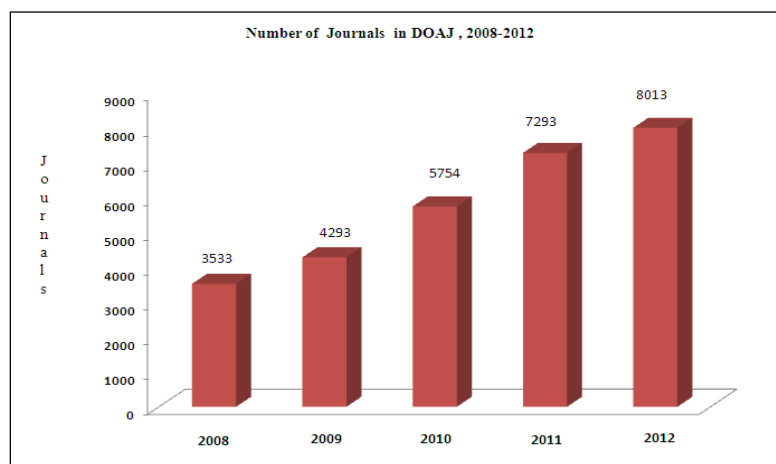
- 5.1 It is free availability of scholarly publication
- 5.2 It is free of copyright and licensing restrictions
- 5.3 Materials are available online or on the internet
- 5.4 Efficient archiving and availability
- 5.5 Metadata can be harvested
- 5.6 Guaranteed sustainable storage and accessibility
- 5.7 Provision to link publication to any research dataset used in producing the paper
- 5.8 Material is full text
- 5.9 Material can be accessed by anybody from anywhere without any discrimination.
- 5.10 Material can be freely used by anyone.
- 5.11 Open Access contents can be in any format from texts and data to software, audio, video, and multi-media, scholarly articles and their preprints.
- 5.12 Open Access Journals perform peer review like their conventional counterparts and then make the approved contents freely available to the world.

6. Academic Libraries and Open Access Initiatives (OAI)

Academic libraries are at the forefront of OA revolution, wishing to control their financial destinies. Shifting from the traditional model of scholarly communication to open access is a significant move, perhaps even a revolutionary one. There are numerous ways in which open access might impact an academic library. Libraries might go about the task of publishing scholarly material in a number of ways, among which are cultivating and managing their own electronic journals, and supporting an institutional repository. A single point of access, search, and organization of scholarly materials within the institution would be of value to the communities served by academic libraries, and there are certainly other values of institutional repositories. One such value is digital preservation, as "libraries are in a better position than individual academics to guarantee that the collection is systematically available even after decades" (Björk, 2004). The implementation of institutional repositories may be the easiest step; academic librarians "also must be able to persuade faculty, many of

whom are for a variety of reasons quite reluctant, to contribute their prime research output" (Antelman, 2004).

In case of academic libraries the main mandate is to support learning, research and training. An attempt has made here to highlight the growth of journals in one of the OA initiative i.e. DOAJ. The academic libraries can harness the user of this directories it covers many disciplines. Directory of Open Access Journals is leading research open access initiative where numerous journals are available online. Here countries across the world are contributing journals content to OA. The growth of the number of journals added from 2008-2012 is shown by the graph below.



Figure, 1.

The number of journals added in the last five years shows the steady increase in the numbers of journals added every year for all the countries of the world. The graph indicates the fact that OA journals are gaining importance in today's world.

A study was made on the major contributors to DOAJ. For this those countries contributing more than 200 journals in 2012 were selected this formed top 10 list.

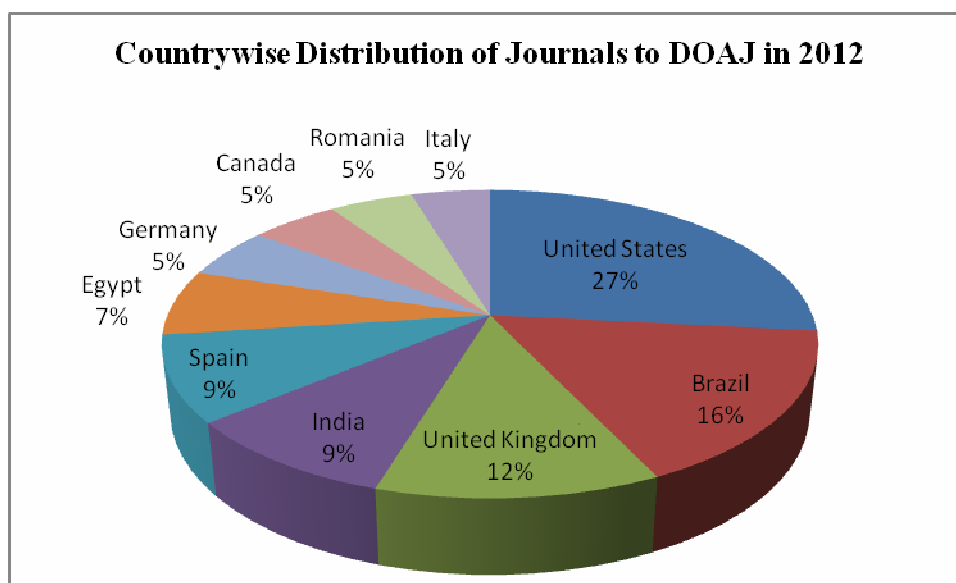
Top 10 contributors to DOAJ in 2012.

Sl. No	Country	No of Journals
1.	United States	1231
2.	Brazil	754
3.	United Kingdom	564
4.	India	428
5.	Spain	417
6.	Egypt	318
7.	Germany	249
8.	Canada	239
9.	Romania	229
10.	Italy	215

Table 1

Table 1 shows the top ten countries in 2012 contributing to journals to open access through DOAJ. Those countries contributing more than 200 journals were selected. India ranks 4th with a contribution of 428 journals which showing the acceptance of OA concept among Indian authors and academicians. It opened its account only in 2003 with 14 journals; this growth is a positive trend in the field of OA.

DOAJ has contribution from various parts of the world with a total of 8013 journals are available through it. Everyday new journals are being added to it. An attempt has been made to know the major contribution to DOAJ. The pie chart below shows the contribution of those countries who give more than 200 journals to DOAJ in the year 2012.



Figure, 2.

United States has the major contribution with 1231 (27%) journals followed by Brazil with the 754 (16%), United Kingdom with (546 12%), India with 428 (9%), Germany with 249(5%), Canada with 239 (5%), Romania with 229(5%), Italy with 215 (5%).

The graph clearly shows that the contribution from U.S which has the major share of 1231 journals. U.S being one of the most developed countries, where scientific research receives highest thrust is the major contributor. This indicates that OA has been taken up as a major vehicle for communication research results.

There are many more countries contributing to DOAJ the details of which can be had from the site www.doaj.org, DOAJ is just one OAI, there are many others where a wealth of information is available at the tip of fingers.

7. Impact of OA

The most remarkable impact of OA on libraries is the increased access to scholarly material without affecting the library budget. As a result, the research output of the parent institution will get increased and thereby enhance the value of the organization.

Studies demonstrate that work made available on OA is cited more than work in non-OA journals. One element of benefit is quick knowledge transfer from research institutions to industry. This helps in making the research literature available more easily to the commercial sector. There are many sectors of the society who have been impacted by OA.

Peter, Suber. (2004) identified few main aspects of open access. They are:

Authors: OA gives them a worldwide audience larger than that of any subscription-based journal, no matter how prestigious or popular, and demonstrably increases the visibility and impact of their work.

Readers: OA gives them barrier-free access to the literature they need for their research, unconstrained by the budgets of the libraries where they may have access privileges. OA increases reader reach and retrieval power. OA also gives barrier-free access to the software they use in their research. Free online literature is free online data for software that facilitates full-text searching, indexing, mining, summarizing, translating, querying, linking, recommending, alerting, "mash-ups" and other forms of processing and analysis.

Teachers and students: OA puts rich and poor on an equal footing for these key resources and eliminates the need for payments or permissions to reproduce and distribute content.

Libraries: OA solves the pricing crisis for scholarly journals. It also solves what is called the permission crisis. OA also serves library interests in other, indirect ways. Librarians want to help users find the information they need, regardless of the budget-enforced limits on the library's own collection. Academic librarians want to help faculty increase their audience and impact, and help the university raise its research profile.

Universities: OA increases the visibility of their faculty and research, reduces their expenses for journals, and advances their mission to share knowledge.

Journals and publishers: OA makes their articles more visible, discoverable, retrievable, and useful. If a journal is OA, then it can use this superior visibility to attract submissions and advertising, not to mention readers and citations. If a subscription-based journal provides OA to some of its content (e.g. selected articles in each issue, all back issues after a certain period, etc.), then it can use its increased visibility to attract all the same benefits plus subscriptions. If a journal permits OA through post print archiving, then it has an edge in attracting authors over journals that do not permit post print archiving. Of course subscription-based journals and their publishers have countervailing interests as well and often resist or oppose OA. But it oversimplifies the situation to think that all their interests pull against OA.

Funding agencies: OA increases the return on their investment in research, making the results of the funded research more widely available, more discoverable, more retrievable, and more useful. When funding agencies disburse public funds, OA helps in a second way as well, by providing fundamental fairness to taxpayers or public access to the results of publicly-funded research.

Governments: As funders of research, governments benefit from OA in all the ways that funding agencies do (see previous entry). OA also promotes democracy by sharing non-classified government information as widely as possible.

Citizens: OA gives them access to peer-reviewed research, most of which is unavailable in public libraries, and gives them access to the research for which they have already paid through their taxes. But even those with no interest in reading this literature for them will benefit indirectly because researchers will benefit directly. OA accelerates not only research but the translation of research into new medicines, useful technologies, solved problems, and informed decisions that benefit everyone.

8. Challenges

There are still many unresolved challenges in open access. Play a critical role in scholarly communication, the open access impact on libraries is evident. Although the open access model has become irresistible, the authors are optimistic that commercial and non-profit publishers will be able to overcome the obstacles and remain competitive with open access in order to promote access to scholarly research. It is predicted that a mixed open access (MOA) model will eventually emerge where traditional publishing and open access models coexist; they may even become interdependent.

The most challenging issue facing those who develop and manage library collections is how they will keep track of open access sources. Given the growing number of open access sources already out there, collection builders may struggle to bootstrap themselves by introducing such sources to their collections. Most academic libraries will need to confront the important issue of adding open access sources to their collections if they wish to serve their communities in the long-run, and indeed, if they wish to stay relevant. Should the open access revolution continue to grow much longer at the speed it is now, it may yet have greater impacts on academic library collections. Some supporters of open access believe that it is possible to create equilibrium in a mixed publishing environment where open access and non-open access co-exist.

Gedye (2004) claimed that in an open access era, "a new role for librarians needs to be discussed, defined, and promoted" in order to better apply their research and instruction expertise to facilitate and instruct their users in accessing and evaluating the quality of open access articles. Open access also requires policy and procedure changes, in order to accommodate the additional collections of institutional repositories and open access journals. Subject specialists, bibliographers, and cataloguing librarians need to establish guidelines to perform quality control and regular catalogue maintenance on these titles.

Goodman (2005) connected open access with intellectual freedom issues such as privacy, copyright, censorship, and user anonymity. Librarians carry social and ethical responsibilities in the promotion of open access.

Challenges in developing countries like India erupt in the form of lack of adequate funding for building and upgrading ICT infrastructure. All the institutions of higher learning are not equally enthusiastic about establishing and maintaining institutional repositories. Though publicity is being given to OA resources, still many pockets lack total awareness regarding exploiting maximum benefit from them.

9. Open Access Initiatives in India

India has done fairly well in the OA area. Some of the initiatives taken up in India to promote OA are listed below. Apart from these many newspapers both in English and regional languages are available in OA. Similarly a large number of government reports

National Knowledge Commission reports (NKC) and Supreme Court opinions are also available on OA.

Some of the important OA initiatives are:

9.1 Directory of Open Access Journal

<http://www.doaj.org/doaj?func=findJournals&hybrid=&query=india> DOAJ: Free, full text, quality controlled scientific and scholarly journals, covering all subjects and many languages. India is contributing journals to this initiative since 2003.

9.2 Indian Academy of Sciences

<http://www.ias.ac.in/> The Academy, founded in 1934, aims at promoting the progress and upholding the cause of science in pure and applied branches. Major activities include publication of scientific journals and special volumes, organizing meetings of the Fellowship and discussions on important topics, recognizing scientific talent, improvement of science education, and taking up other issues of concern to the scientific community.

9.3 Indian National Science Academy

<http://insa.acpservers.com/html/home.asp>; Indian National Science Academy, a premier Science Academy in the country, plays crucial role in promoting, recognizing and rewarding excellence. Another important task is to publish journals, organize scientific discussions and bring out proceedings and monographs.

9.4 Indian Journals .com

<http://www.indianjournals.com/ijor.aspx>; IndianJournals.com is a vast collection of interdisciplinary Indian Journals and Research Publications, providing: A pan-global web exposure for your Journals, A chance to preserve your research online, an international door to knowledge-sharing, a mode to generate interest in your field.

9.5 Indian Medlars Centre

<http://medind.nic.in/>

One point resource of peer reviewed Indian biomedical literature covering full text of IndMED journals. It has been designed to provide quick and easy access through searching or browsing.

9.6 ePrints@IISc

<http://eprints.iisc.ernet.in/> ; ePrints@IISc repository collects, preserves and disseminates in digital format the research output created by the IISc research community.

9.7 Indian Statistical institute

<http://www.isibang.ac.in/~library/> ; The ISI Bangalore centre library was established in the year 1976 to meet the academic and research interests of the students, scholar, teachers and others. It has one of the best collections of literature on Statistics, Mathematics, Quality Engineering/ Management and Library & Information Science in India.

9.8 Open J-Gate Informatics (India) Limited

<http://www.openj-gate.com/> ; Open J-Gate is a free database of open access journals, launched in February 2006, hosted by Informatics (India) Ltd. Open J-Gate currently aggregates metadata from more than 4,000 OA journals published in the English language around the globe.

9.9 Open DOAR

<http://www.opendoar.org/>; Open DOAR is an authoritative directory of academic open access repositories. Each Open-DOAR repository has been visited by project staff to check the information that is recorded here. This in-depth approach does not rely on automated analysis and gives a quality-controlled list of repositories.

9.10 The National Academy of Sciences, India

<http://www.nasi.org.in/> ; Founded in the year 1930, the National Academy of Sciences, India is the oldest Science Academy of the country. The main objective of the Academy was to provide a national forum for the publication of research work carried out by Indian scientists and to provide opportunities for exchange of views among them.

Conclusion:

OAI have emerged as a boon to 'Combat Serial Crisis'. The academic libraries should promote OA and also influence for the establishment of institutional repository of the parent Institution. The libraries by adopting OA can give more visibility to users. Many journals which it cannot afford to subscribe are made available under OA. The National Knowledge Commission has recommended increasing the Open Education Resources (OER) and Open Access (OA). The easy and wide spread availability of high quality of educational resources will improve the quality of education institution. The noble objective of OA has to be realized and the librarian has to encourage the users not only to be active consumer of OA but also active contributors to it, only then the OA model will fulfill its motto of free access to scholarly literature.

OA facilitates information dissemination and has helped libraries in terms of meeting increasing subscription costs, and managing difficult negotiations with publishers, particularly when these publishers monopolize the intellectual market and tighten copyright limitations. Universities and libraries need to assess institutional needs and priorities based on the strengths and weaknesses of the open access initiative in their decision-making process

OA is the outcome of old and new ideas. The old idea is the willingness of the scholars to publish the fruits of their research in scholarly journals and the new is the use of internet in the libraries. This has made possible worldwide distribution of the peer reviewed journal literature completely free and with unrestricted access to all curious minds of the academic community.

References

1. Antelman, K. (2004). *Do open-access articles have a greater research impact?* *College & Research Libraries News*, 65(5), 372-382.
<http://lackoftalent.org/michael/papers/532.pdf>
2. Anuradha. et al (2011). Awareness and Use of Open Access and free Resources on the Internet... *8th International CALIBER Goa University GOA* .
3. "Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities," 22 October 2003, <http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html>.

4. Björk, B.-C. (2004). Open Access to Scientific Publication-an analysis of the barriers to change ? *Information reseaech* , 9 (2).
5. *Bthesda Statement (2003)*. Retrieved August 7, 2012, from <http://www.earlham.edu/~peters/fos/bethesda.htm>
6. Budapest Open Access Initiative, "Budapest Open Access Initiative," 14 February 2002, <http://www.soros.org/openaccess/read.shtml>.
7. Charles W. Bailey, Jr., *Open Access Bibliography: Liberating Scholarly Literature with E-Prints and Open Access Journals* (Washington, DC: Association of Research Libraries, 2005), xvii, <http://www.digital-scholarship.com/oab/oab.htm>.
8. Christian, G.E. (2008). *Issues and challenges to the development of open access institutional repositories in academic and research institutions in Nigeria*. Retrieved August 9, 2012, from: <http://idlbnc.idrc.ca/dspace/bitstream/10625/36986/1/127792.pdf>
9. Das, A. K. (2008). *Open access to Knowledge and Information*. NewDelhi: UNESCO.
10. Gedye, R. (2004). *Open access is only part of the story*. *Serials Review*, 30 (4), 271-274.
11. Goodman, D. (2005). *Open access: What comes next? Learned Publishing*, 18 (1), 13-23. Retrieved from the Free Ingentaconnect Backfiles database.
12. Harnad, S. (2008). *Mandates and metrics: How open repositories enable universities to manage, measure and maximise their research assets*. Retrieved August 3, 2012, from: <http://users.ecs.soton.ac.uk/harnad/Temp/openaccess.pdf>
13. Ivwgherghweta, O. (2012). *Use of Open Access Journals by lecturers...*, htm. Retrieved July 05, 2012, from <http://unllib.unl.edu/LPP/>
14. *Open access*, Retrieved August 5, 2012, from Wikipedia: http://en.wikipedia.org/wiki/Open_access
15. Poynder, R. (2010). *Interview with Stevan Harnad A prophet whose time has come*. Retrieved August 4, 2012, from: <http://www.infotoday.com/it/feb10/Poynder.shtml>
16. *Research Libraries News*, 65(5), 372-382. <http://lackoftalent.org/michael/papers/532.pdf>
17. Retrieved July 02, 2012, from e-prints: <http://www.eprints.org/openaccess/>
18. Retrieved July 7, 2012, from DOAJ(Directory Of Open Access Journals): <http://www.doaj.org/doaj?func=byCountry&uiLanguage=en>
19. *Salvador Declaration on Open Access: The Developing World Perspective September*. 21-22, 2005 Retrieved August 4, 2012, from: <http://www.icml9.org/meetings/openaccess/public/documents/declaration.htm>
20. Singh, D. V. (2011). Scholarly Open Access Resources and Services on the Web. *Journal of Indian Library Association* , 42 (2-3), 22-28.
21. Singh, K. P. (2011). Open Access and Scholarly Communiation:Role of Public Funded research and Development of India. *IASLIC Bulletin* , 56 (4), 211-225.
22. Subbaiah. (2011). *Open Access Scholarly literature in India:Status Report*. Bangalore, Karnataka, India: Centre for Internet and Society.

23. Suber, P. (2004) "Open Access Overview: Focusing on Open Access to Peer-Reviewed Research Articles and Their Preprints Preprints," <http://www.earlham.edu/~peters/fos/overview.htm>.
24. Suber, P. (2009) "Timeline of the Open Access Movement," <http://www.earlham.edu/~peters/fos/timeline.htm>.
25. Suber, P. (2009, October 2). Ten challenges for open-access journals. *SPARC News Letter (138)* . SPARC.
26. Suber, P. (2010). *Open access overview: Focusing on open access to peer-reviewed research articles and their preprints*. Retrieved August 4, 2012, from:<http://www.earlham.edu/~peters/fos/overview.htm>