

Foraying into Open Access Journals: The Current Trend in Scholarly Publishing

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Abstract

Defines scholarly publishing and Open Access (OA) resources. It explains the importance and methods of scholarly publishing. Discusses the traditional methods of scholarly publishing and their limitations in advancement and spreading of knowledge. Presents the current trend in publishing in open access by the scholarly community. Argues that the publishers and database vendors interests are detrimental to the universally acclaimed ideal of 'Information for All' or 'Universal Access to Information / knowledge'. States that Internet and WWW have thrown up new avenues and new genres of scholarly publishing. The primary objective of the paper is to bring awareness among scholarly community and library & information professionals on the proliferation and availability of open access resources and to sensitize and promote the use of OA resources and publishing in OA by the scholarly community. The study follows descriptive and analytical methods. Discusses the dangerous trend of emergence of predatory O A journals which the scientific community and scholars have to be wary. Presents the current trends in publishing of O A Journals, their access and reachability to wider sections of information seekers, researchers, faculty and scientific community leading to the advancement of knowledge and innovation and also fulfilling the democratic norm of Information For All. Concludes that publishing in open access is fast picking and India stands one among the top five OA publishing countries. Open access journals and social media are the major sources of scholarly publishing and also viable and alternate method of scholarly publishing, in the present times.

Keywords: Open Access Publishing; Scholarly Publishing Trends; Open Access Journals; Open Access Movement; Open Access Publishing Trends; Open Access Resources and Universal Access to Information.

Introduction

All research results whether scientific, technological, social sciences or humanities, culminate in their reporting or publishing for subsequent use by the society. Research is largely funded or sponsored by the government, i.e., funded by the public money. Hence, it is justified that the research results and innovations should naturally reach the public/society for further research, innovations, and advancement and ultimately for the societal development. The research output is the intellect, scholarship, the sweat and toil of the

scientific community or the researchers. The print journals, conference papers and monographs are still considered as the strong means or models of scholarly communication even in the present digital era. The research results or the scholarly content is of course, published in journals or databases by the commercial publishers or database vendors who intern sell them to the society at a premium price, as profit making is their prime motto. Whereas, the developing countries like India are unable to afford to subscribe the journals whose prices are increasing year after year by about 20.0% especially in the case of foreign journals, and the library budgets are not increasing at the same proportion, rather shrinking in some instances. Further, unlike the past, there is a rapid increase in the number of journals in the 20th and 21st centuries. This resulted in for the developing countries and their institutions like the libraries, scientific and research centers and individuals constrain to acquire or access the proprietary journals whose prices are shooting up regularly. Since last decade of the twentieth century, a serious thought and initiations were made

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to make available the public funded research output to the public without any financial or legal restrictions, i.e., publishing in open access. A similar recommendation was made by the Governments in various countries, like USA, UK and National Knowledge Commission, India (NKN, 2005). This resulted in the Open Access Movement in world over countries since 1990s, and India at present stands as one among the top five largest open access journals publishing countries.

Methodology

The primary objective of the paper is to bring awareness among the scholarly community and the library & information professionals on the proliferation and availability of open access resources which are free for access to all those interested. Further, OA Journals have been well recognized as the better and viable means of scholarly communication and also for their wider visibility of research findings. It is also aimed at motivating the scholars and the research community to publish their research output in Open Access domain not only for their greater visibility but also to receive more number of citations to their works. The study follows descriptive and analytical methods of presentation of data / information on OA publishing as the current trend in scholarly publishing. Further, it reviews the existing literature on O A with analytical and critical interpretations.

Scholarly Communication

Communication in humanizing sense is a source and extension of imagination which can be learned and shared. It includes the production, perception and understanding of messages as to what is right, what is important and what is related to something else. Hands, brains, eyes, ears and mouths are the chief organic means of communication and intelligence. Speech and language, caves and home arts, skills and implements, writings and printing presses, telegraph, telephone (Mobiles), photography, phonorecords (sound recordings), T V, Broadcasts, films, etc., are all the means of communication, that were evolved over a point of time since the beginnings of human civilization. (Encyclopedia Americana, 2000).

The dictionary meaning of the term 'scholarly' means 'Academic' or 'having lot of knowledge', and scholarly communication means systematic, honest, understandable, reachable and shareable knowledge

communication to the intended people with the same spirit and emphasis as desired by the authors or creators of such information.

ACRL (Association of College and Research Libraries) defines Scholarly communication as 'the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use. It includes both formal means of communication, such as publication in peer-reviewed journals, and informal channels, such as electronic listservs'. The full cycle of Scholarly communication includes discovery and creation of knowledge, its dissemination, preservation, and re-use.

Developments in Scholarly Communication

Till the late 17th century, Communication between scholars depended heavily upon personal contacts and by attending meetings of the learned societies. As the membership of the learned societies and associations grew and since many of them could not attend the meetings, the need for publishing conference / meeting proceedings (usually the record of the meetings held) became important and eventually evolved into scholarly journals. (Tenopir & King, 2000). The *Transactions of Royal Society of London*, and the *Journal Des Scavans*, both published in the same year 1665 were identified as the first scholarly journals, i.e., the tools or means of scholarly communication. Ever since, there is a growth of scholarly communications not only just through the journals but also in other forms such as, reports, theses, dissertations, books, standards, patents, etc. Of course, all these forms of scholarly communications are intended for communication of innovations, new findings, and research results to the society for its development and to accelerate further research and innovations. (Sudarshan Rao, 2014).

There are some revolutionary developments and inventions that have been tremendously impacting the scholarly communication and also the entire society. They are: the Gutenberg's Movable Printing Press, the computers, Internet and www. Further, e-Resources and e-publications which came into the world of communication, at the end of the 20th century have brought in significant transformation as they are characterized for instant, easy and convenient access to the information or knowledge to the entire people on the globe. While emphasizing the importance of electronic resources to the present day society, Harnard (1991) states that electronic communication is the fourth revolution in production

of knowledge after spoken language, written language, and the printing press.

Another subsequent and remarkable development in the communication or scholarly communication is the evolution of Open Access Publishing which is playing a pivotal role in taking the information to the people across the globe without any legal, financial restrictions and geographical boundaries. It is a great step towards democratization of information and knowledge, and an attempt to realize the noble ideals of 'Information for All' or 'free flow of information across the globe without any barriers'.

Every research endeavor culminates with the reporting of its results or findings in the form of publications, mostly as journal articles or reports. This is what we generally mean scholarly communication. If the research findings are not published, they would not reach the expected audience or the scholarly community. Hence, the scientific way of publishing or methodical means of publishing the scholarly information is of great importance to the society in diffusion of knowledge and to gain from it.

Methods / Channels of Scholarly Communication

Journals, conference papers, books (monographs) were the traditional methods of scholarly communication among the scholarly community, since 17th century, and even today, they stand as the strong and popular methods of communication. But now, the advent and use of ICTs, WWW and Internet and proliferation of Digital Resources have thrown open a plenty of communication methods / channels that have been serving the scholarly community instantly / quickly, cheaply and in some instances in an interactive and shareable way. The final report of ARL (Association of Research Libraries, USA) conducted by Ithaka reported by Maron and Kirby (2008) identifies eight principal types of digital scholarly resources / communications. They are:

- E-only journals
- Reviews
- Preprints and working papers
- Encyclopedias, dictionaries, and annotated content
- Data (data output of scientific research, e.g., Protein Data bank, e-Bird)
- Blogs
- Discussion forums (message boards, listservs, etc.)

Professional and scholarly hubs (combining content from many genres on digital portals, websites, which provide links or access to reviews, e-journals, conference papers, newsletters, blogs, grey literature, events, etc.)

History of Open Access Movement

The exploitation by the commercial publishers and non-affordability of institutions and libraries to subscribe the high cost journals and the demand for the information led to the movement of Free or Open Access (OA) to research findings or innovations. Open Access means extending free and unrestricted access to online articles published in scholarly journals, through the Internet. There are two distinct ways of open accessibility to scientific research literature. They are: 1. Gold OA (Publishing in online Open Access Journals), and 2. Green OA (Self Archiving in Institutional Repositories, Institutional Portals, Blogs or Social Networks). The other kind of OA could be Hybrid OA which can be partly OA and partly subscription based or keeping the scientific research output into OA domain after an embargo period of one or two years.

Open Access began in its rudimentary form since 1990s with the efforts of individuals and institutions but attained the right status by 2002. The initiations that contributed to OA Movement, according to Peter Suber, an authority on OA, can be traced back to 1990. They are:

- *Electronic Journal of Communication* which was launched in September 21, 1990 as an early free online peer-reviewed journal.
- *Postmodern Culture* which was launched by Eyal Amiran, Greg Dawes, Elaine Orr, and John Unsworth as an early free online peer-reviewed journal in September 30, 1990.
- In October 1990, Tim Berners-Lee wrote first web client and server model (released March 1991). On November 12, 1990, Berners-Lee published *World Wide Web: Proposal for a Hypertext Project*, and on November 13, 1990, and he wrote the first web page.
- In November 1990, *Bryn Mawr Classical Review* was launched. (An early free online peer-reviewed journal which is considered to be the second oldest online scholarly journal in the humanities).

Besides the above, the other important landmark contributions of OA Movement are:

1. Public Library of Science (PLOS) (founded in

- 2000),
2. Creative Commons (founded in 2001)
 3. Budapest Open Access Initiative (Feb. 14, 2002),
 4. Bethesda Statement on Open Access Publishing (Apr. 11, 2003),
 5. Berlin Declaration on Open Access (Oct. 22, 2003),
 6. Lyon Declaration on Access to Information and Development (Aug. 2014),
 7. The Registry of Open Access Repository Mandates and Policies (ROARMAP) (2013)
 8. Scholarly Publishing of Academic Resources Coalition (SPARC) - An International Alliance of Academic and Research libraries working to create a more open system of Scholarly Communication.
 9. ARL / ACRL (The Association of Research Libraries and the Association of College and Research Libraries) jointly sponsored the Institute on Scholarly Communication (ISC) to promote the development of library-led outreach on scholarly communication issues. The institute has hundreds of alumni forming a community.

Lyon Declaration on Access to Information and Development (2014)

The United Nations is negotiating a new development agenda to succeed the Millennium Development Goals. The agenda will guide all countries on approaches to improving people's lives, and outline a new set of goals to be reached during the period 2016-2030. It declares that "We, the undersigned, believe that increasing access to information and knowledge across society, assisted by the availability of information and communication technologies (ICTs), supports sustainable development and improves people's lives. We therefore call upon the Member States of the United Nations to make an international commitment to use the post-2015 development agenda to ensure that everyone has access to, and is able to understand, use and share the information that is necessary to promote sustainable development and democratic societies".

The Registry of Open Access Repository Mandates and Policies (ROARMAP) (2013)

It is an international registry charting the growth of open access mandates and policies adopted by universities, research institutions and research

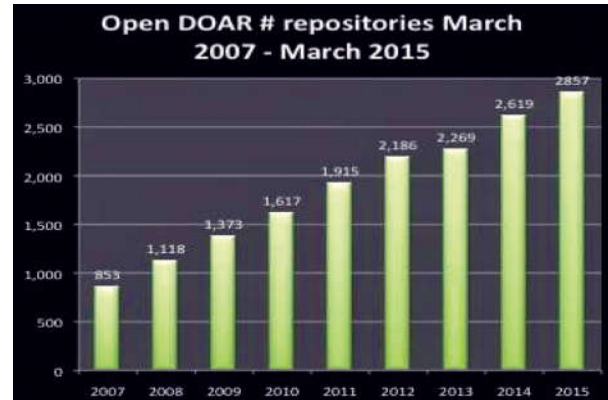
fundors that request their researchers to provide open access to their peer-reviewed research article output by depositing it in an open access repository.

Trends in OA Publishing

Since 1990s lot many efforts were made on OA Publishing. The contributions of Public Library of Science (PLOS), Creative Commons, Budapest Open Access Initiative, Bethesda Statement on Open Access Publishing and Berlin Declaration on Open Access, etc are note worthy. In view of its advantages, the OA Publishing is picking up fast in many countries. However, some studies on trends in OA publishing is given below.

Laakso, et al (2011) from their survey indicate rapid growth of OA during the period 1993-2009. In 2009 the share of articles in OA journals, of all peer reviewed journal articles, reached 7.7%. Overall, results indicate a rapid growth in OA journal publishing over the last fifteen years. Based on the sampling results and qualitative data, a division into three distinct periods of OA publishing is suggested: 1. The Pioneering years (1993-1999), 2. The Innovation years (2000-2004), and 3. The Consolidation years (2005-2009). They also found that direct Gold OA journal publishing has seen rapid growth particularly between 2000 and 2009. In 2000 they observed that there were around 19,500 articles published OA, while the number for 2009 it was 1,91,850 articles, a multifold increase. These findings support the notion that OA journals have both increased in numbers as well as increased their average annual output over time.

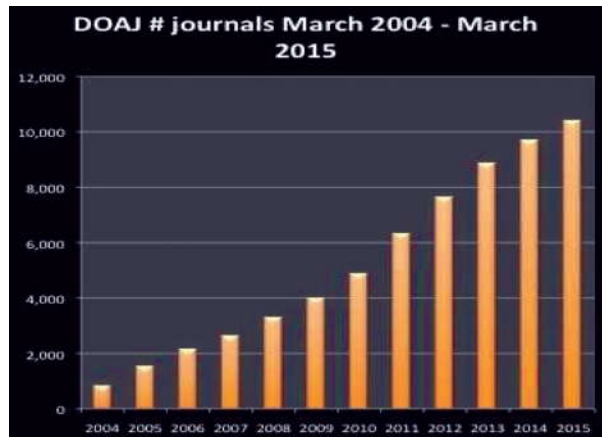
According to Morrison (2015) there is a rapid growth of Open Access Repositories as per the DOAR (Directory of Open Access Repositories) statistics. The growth is more than 300% since 2007 to 2015. There



Source: <http://poeticeconomics.blogspot.in/2015/04/dramatic-growth-of-open-access-2015.html> (Heather Morrison)

were 853 OA repositories in the year 2007 and it rose to 2857 by the year 2015 which indicates a phenomenal growth of OA repositories.

Open DOAR added 129 repositories in 2015 for a total of 2,857. The Bielefeld Academic Search Engine added close to 3 million documents for a total of over 71 million documents. Another 7,690 authors joined the Social Sciences Research Network for a total of over 275,000 authors. *Internet Archive* added 1.7 million texts for 7.8 million. Directory of Open Access Journals (DOAJ) presently includes more than



Source: <http://poeticeconomics.blogspot.in/2015/04/dramatic-growth-of-open-access-2015.html> (Heather Morrison)

10,000 OA Journals by the year 2015. The growth of OA journals as per DOAJ is furnished in the above graph.

The *Directory of Open Access Journals*, in spite of vigorous weeding and re-organizing over the past year or so, is back to showing consistent strong growth, adding 254 titles in 2015 first quarter for slightly under 3 titles per day. Over the past year, the growth in articles that can be retrieved through a DOAJ article-level search grew by over a quarter of a million articles for a total of over 1.8 million articles!.

As on date, the DOAJ contains

- **8,816 Journals** (After remove of approximately 3300 journals for failure to submit a valid reapplication)
- **6,111 searchable at Article level**
- **129 Participating Countries**
- **1,976,595 Articles**

India ranks one among the top four countries that have been publishing OA Journals after, US, Brazil, Canada. It is also observed that largest number of users of DOAJ are from India (30.4%), followed by US (13.7%) and 3.9% from UK.

India's Contribution to DOAJ is given in the following Table. It reveals country wise distribution of journals. A total number of 121 countries have contributed to 8518 journals in the DOAJ. It is found that United States (14.9%) leads the table with a record number of 1269 OA journals followed by Brazil

Table: Countries and their rank in contributing to OA Journals

Country	No. of O A Journal s	World Output	Percentage	Rank
United States	1269	8518	14.9%	1
Brazil	801		9.40	2
United Kingdom	575		6.75	3
India	463		5.43	4
Spain	442		5.18	5
Egypt	350		4.10	6
Germany	260		3.05	7

Source: Mondal, D. (2014). India's contribution to DOAJ with special reference to Computer Science Discipline: A study.

(9.40%) and United Kingdom (6.75%). India ranks number 4 in the DOAJ with 463 (5.43%) journals. The top seven OA Journals contributing countries are given in the table below'

India, since 2003 has been continuously contributing to DOAJ. Indian Journals added into DOAJ in the year 2010 was maximum by 127, followed by 2012 with 95 journals and 2011 with 93 journals. The number of articles published per year has consistently witnessed a positive growth trend. Highwire Press added 9 completely free sites this quarter. The number of journals with immediate free access in PubMedCentral increased by 43 to a total of 1,443.

In the last year, i.e., 2015 20 more publishers joined the *Directory of Open Access Books* (DOAB). As of now, DOAB includes 4661 Academic peer-reviewed books from 154 publishers

Advantages of O A Publishing

OA publishing is likely to bridge the knowledge divide or knowledge gap between the rich and poor nations. The free flow of information across the national boundaries is very much possible through OA publishing. It also supports the IFAP (Information for All Programme) of UNESCO and IFLA and also in taking the Open Access resources / information to the people across the globe without any legal, financial and geographical boundaries. It is a great

step towards democratization of information and knowledge and an attempt to realize the noble ideals of 'Information for All' or 'free flow of information across the globe'. It also achieves the United Nations Millennium Goals and new development agenda and to succeed it. The agenda will guide all countries on approaches to improving people's lives, and outline a new set of goals to be reached during the period 2016-2030 by increasing access to information and knowledge across society, assisted by the availability of information and communication technologies (ICTs), supports sustainable development and improves people's lives. Increased visibility, use and receiving more citations to the OA resources is a well established advantage over the proprietary resources. UK, USA, India and many other countries in the world have been promoting and recommending OA publishing for all the research output generated out of the public funded research.

The surfacing of predatory OA Journals which have come up in unethical manner are becoming detrimental to the OA publishing. Some surveys and studies on predatory OA journals, have revealed that India stands on the top rank with almost 345 Indian OA Journals are under this category. It is indeed an unfortunate situation and needs to be checked. All the scholars and scientific community and faculty members have to be wary of this undesirable trend of so called scholarly publishing in predatory journals.

Conclusion

A phenomenal change is observed in the landscape of scholarly publishing in the 21st century. The ICTs, Internet and WWW are the enablers and promoters of the new genres of scholarly communication. The New genres / methods of scholarly communication have been evolved besides the traditional methods such as, print journals, Conference Reports, Books and monographs which still stand as strong methods of Scholarly Communication. Among the new genres are the e-only Journals especially the Open Access Journals, Open Access Books, Social Media, Blogs, Portals, discussion forums, professional and scholarly hubs which are largely characterized for their being accessed and shared by the end users without the intermediation of the publishers and database vendors. Besides, OA Journals, the Digital Libraries, Institutional Repositories and self archived scholarly content on Social Media and Social Networks such as, Portals, Blogs, LinkedIn, Academic.edu, ResearchGate, etc have been playing important role in scholarly Communication. The O A

publishing and Internet has the potential of democratization of knowledge across the globe and to bridge the digital divide or knowledge divide between the developed and developing countries. Every scholar and researcher can now design his / her own website, where he can preserve, share and disseminate the research results and innovations to a wider audience in a short span of time. The stage has come where the authors can become the publishers and communicate their research findings without the intermediation and exploitation of the commercial publishers and database vendors using web 2.0 technologies. Further, authors can also maintain their works in the Institutional Repositories. Out of various forms or methods of scholarly communications, the OA journals are the preferred channels followed by various others such as, blogs, social media, institutional repositories. It is expected that in the coming years, more and more research output shall be published in the form of OA publications, either as OA gold or OA green, making the knowledge accessible freely to all without any restrictions. According to *The status of OA today* by Pinfield "there is a better understanding of OA and it is growing (but still needs to be further developed). A number of different studies have been conducted over the last five years which give us a much clearer idea of the levels of OA, and the available evidence does suggest that open access is now entering the mainstream of scholarly communication. A recent report suggests that 34% of the literature globally is OA within 24 months of publication (43% for the UK). It is important that the librarians can play a role in encouraging the faculty and researchers to publish in the OA, in view of the advantages to both the authors and the society at large, and also to sensitize the scholarly community to wary of the predatory OA journals.

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