

Guest Editorial

Open Access: How open can we make the Scholarly Information System?

Open Access (OA)—what is open about it? What is that we had shut that has suffocated us and we want to open? These questions were in vogue then when our libraries were just storehouses of information resources, closed in chained almirahs, and opened rarely. The users could not (or rarely, if ever) *check them out, only see them* (that too not freely). These questions find relevance today, but in a different flavour. The serials crisis syndrome is a well known fact which consternated scholarly community as well as the libraries and librarians alike. Lots of information available, prohibitive costs of scholarly publications stopping them to reach to the information hunger society, particularly in developing countries. Adding to tyrannical dimension is that, the research you generate, you are paying (again) for using it, and you have paid while you were doing it. There are several barriers to unrestricted access to scholarly information. OA tries to hard push those aside and advocate free availability and unrestricted use. OA is breaking the barriers like *price barriers* that include subscriptions, licensing fees, pay-per-view fees and *permission barriers* mostly copyright and licensing restrictions. OA is thus opening the windows to have fresh breeze that pump in more oxygen and eases out the suffocation brought in by the barriers. The open-access movement is the worldwide effort to provide free online access to scholarly research literature, especially peer-reviewed journal articles and their preprints. The core principle of OA is to open up access to research and scholarship. Untapped rich resources in terms of their original content, cultural diversity and vast opportunity for exploring new facets can find now revisiting opportunity with open content policy and Government support for e-research to help out curation of such resources, which is a win win situation for all of us. Open access and the development of OA repositories are remodeling scholarship and bringing fresh opportunities and challenges for researchers, librarians and publishers.

The OA movement has snowballed by the various declarations and statements. The timely breakthrough of OA movement witnessed some major OA statements and the journey (more appropriately) started in 2002 traversed through the last over half a decade that landed in the emergence of several initiatives to open access, thus projecting the scenario that we find to date. Some of the major statements and initiatives that brought the open access movement to limelight are: Budapest Open Access Initiative (<http://www.soros.org/openaccess/>), February 14, 2002; Bethesda Statement on Open Access Publishing, June 20, 2003; ACRL Principles and Strategies for the Reform of Scholarly Communication, August 28, 2003; Wellcome Trust position statement on open access, October 1, 2003; Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, October 22, 2003; UN World Summit on the Information Society Declaration of Principles and Plan of Action, December 12, 2003; OECD Declaration on Access to Research Data From Public Funding, January 30, 2004; IFLA Statement on Open Access to Scholarly Literature and Research Documentation, February 24, 2004; Australian Group of Eight Statement on open access to scholarly information, May 25, 2004.

Besides, there are several other developments that further buttressed the movement, and helped development of open access archives. A few of the notable ones are: Creative Commons officially launched Science Commons, January 1, 2005; January 26, 2005, several US and international library associations released their Library-Related Principles for the International Development Agenda of the World Intellectual Property Organization; the US National Institutes of Health (NIH) released its long-awaited public-access policy on February 3, 2005; February 24, 2005. Blackwell Publishing launched its Online Open hybrid journal program; March 5, 2005. SPARC officially launched its Author's Addendum to help authors modify publishing contracts and retain the rights they need to authorize open access; April 2005. The European Bureau of Library, Information and Documentation Associations (EBLIDA) issued a Statement Towards an Effective Scientific Publishing System for European Research, endorsing open access; May 2, 2005. The

NIH Public Access Policy went into effect; July 1, 2005. Oxford University Press launched its Oxford Open hybrid journal program; August 20, 2005. The Open Knowledge Foundation Network published a manifesto, Open Access to State-Collected Geospatial Data; September 1, 2005. CODATA announced the launch of the Global Information Commons for Science; August 20, 2005 the Open Knowledge Foundation Network published a manifesto, Open Access to State-Collected Geospatial Data.

The year 2006 also saw number of developments, particularly from the Indian point of view. Participants in a Bangalore conference (November 2-3, 2006) drafted a model National Open Access Policy for Developing Countries that was made public on November 22, 2006 (<http://www.ncsi.iisc.ernet.in/OAworkshop2006/pdfs/NationalOAPolicyDCs.pdf>); December 1, 2006, IFLA and UNESCO released the IFLA/UNESCO Internet Manifesto Guidelines (dated September 2006), recommending open access as one way to implement the 2002 IFLA Internet Manifesto; December 7, 2006, the Working Group on Libraries for India's National Knowledge Commission (NKC) recommended an OA mandate for publicly-funded research (<http://knowledgecommission.gov.in/downloads/recommendations/LibrariesLetterPM.pdf>); December 21, 2006, The Public Library of Science (PLoS) officially launched PLoS ONE.

The trend seems to be continuing in 2007. For instance Karger Medical and Scientific Publishers announced a hybrid OA program for eight of its journals on January 4, 2007; January 5, 2007. Emerald launched Emerald Asset (Accessible Scholarship Shared in an Electronic Environment), a no-fee hybrid OA program for its engineering journals; January 10, 2007, The European Research Advisory Board (EURAB) recommended an OA mandate for EU-funded research.; January 26, 2007, The European University Association's Working Group on Open Access released a Statement on Open Access, endorsing an EU-wide OA mandate. The more comprehensive information about timeline of the open access movement is available at <http://www.earlham.edu/~peters/fos/timeline.htm>.

Many OA initiatives focus on taxpayer-funded research and there are strong arguments for that, primarily it would be wrong to make taxpayers pay a second fee for access. That is precisely, a number of nations (over 30) have signed the Economic Co-operation and Development (OECD) Declaration on Access to Research Data From Public Funding. And many leading organizations have shown the way by mandating OA to the public funded research.

There were several apprehensions put forward by many in the fray, many of these have faded with the time, developments, initiatives and deliberations. However, it may be worthwhile to mention a few. OA is compatible with copyright, peer review, revenue (even profit), print, preservation, prestige, career-advancement, indexing, and other features and supportive services associated with conventional scholarly literature. The legal basis of OA is either the consent of the copyright holder or the public domain, usually the former. One easy, effective, and increasingly common way for copyright holders is to use open content licenses such as creative commons or a list can be found at http://pzwart.wdka.hro.nl/mdr/research/liiang/open_content_guide or compose their own permission statements and attach them to their works.

The beauty of OA lies in, that access to end-user is free, although OA literature is not free to produce or publish. Somebody pays for it. That could be author or the funding agency. But question then in many minds would be why should they pay for it? Obviously, the campaign for OA focuses on literature that authors give to the world without expectation of payment. They understand the intangible benefits of this, advancing knowledge in their respective fields (ensures) advancements in their careers, their visibility, their prestige in terms of the impact they make through their research on the community.

While many authors, academic and research organizations including funding agencies have realized the impact and importance of OA and have made endeavors to strengthen the movement, the leading publishers have also chipped in (although at slower pace) to contribute their bit for global good. Many journal publishers are opening access to research by letting authors archive their preprints and post prints, though copyright policies and self archiving, procedures are in vogue in different flavours for different publishers. More details on this can be found at <http://www.sherpa.ac.uk/romeo.php>. This can be further corroborated by publishers changing colors in true sense—Green publishers, Blue publishers, Yellow publishers, and White publishers meaning different things. For instance for Green publishers permit you archive pre-print and post-print; for blue ones you can archive only post-print that post-refereed copy only, yellow permits archive pre-print only (pre-refereeing copy), while white means archiving not formally supported. These

colors might again change (perhaps) colors or the meaning or terminology that one might expect with further swift in the OA movement.

The OA movement is definitely reflecting one point that all the stakeholders be it librarians, publishers, authors, institutions, policy makers, users both students and faculty, Universities, administrators, governments, learned societies and others have a role to play in further pushing it to make it a policy (somewhat) must to do concept. Thus each sector of community has a specific responsibility to perform. Broadly speaking, while faculty/researchers/authors may submit research articles to OA journals, when there are appropriate OA journals in their field, need to deposit their pre-prints and post-prints in an open access OAI compliant archive (though some clearances might be required); the librarians/universities/academic institutions on their part may contribute by launching an open-access, OAI-compliant institutional eprint archive, for both texts and data and help faculty deposit their research articles in the institutional archive. The administrators/policy makers need to chip in and mandate OA archiving for at least public funded research, while learned societies, may consider publishing an open-access journal. Publishers on their part may allow authors to retain the copyright and allow them to archive post prints. There are number of ways how each one of us can play a role in promoting OA and freeing the scholarly content for unlimited, unrestricted and global access for furtherance of the research, thereby turning digital divide into digital provide. Peter Suber has given detailed descriptions of ways of helping promoting OA movement by all concerned that can be found at <http://www.earlham.edu/~peters/fos/do.htm>.

Coming to the national scenario, scientific and academic bodies in the country are deeply concerned with the basic elements of the Information society, particularly from the Indian perspective. The key areas of deep interest are: the issues of open access in relation to the data and information generated out of projects sponsored by government agencies; digital archiving (both forms converting from print to digital and born digital) of information and knowledge generated by the academic institutions and national laboratories; preparation and dissemination of knowledge. Particularly new knowledge (born digital) using ICT and strategies for enhancing infrastructural capabilities to maximize gains from technological advances in the information technologies. Several discussion meetings were organized to address the issue of open access to scientific information, which has been gathering momentum in recent years.

A National Seminar on "Open Access to Scientific Data and Information" and one day workshop-cum-seminar on "Open Access and Institutional Repositories" were organized by the Indian National Science Academy (INSA) on 27th December, 2003 at Pune and 13 May 2004 at New Delhi. The seminars were organized with a view to disseminate information about the importance of open access in scientific communication. and to initiate the process of developing a cadre of open access experts in Indian higher educational institutions and government laboratories. The meetings evoked considerable interest in the audience, which was reflected in high quality discussion. The full report of the seminar-cum-workshop held on 13th May, 2004 is available at <http://www.insaindia.org/Events/events.htm>. To spread the message of importance of open archiving and access, two workshops were organized by MS Swaminathan Research Foundation during May 2004, where experts in developing such repositories were also invited from abroad to interact with the participants. As a sequel to these initiatives, several open access repositories have cropped up and many are in pipeline. Incidentally, INSA is a signatory to Berlin Declaration on Open Access.

There is a growing trend in the Indian national R&D organizations to set up *digital archives* (institutional repositories) of the information and knowledge generated by their scientists and engineers. The Institutional E-Print archives of, Indian Institute of Science, Bangalore, Indian Statistical Institute, Indian National Science Academy are the ones gradually being populated. Several other institutions like Indian Institute of Technology, and CSIR laboratories like National Chemical Laboratory, Pune are also actively engaged in setting up of digital archives. However this trend is growing. Efforts in setting up of indigenous data centers and infrastructure for linking with major international data centers are growing up at a fast rate. Some of the examples include National Collection of Industrial micro-organism from NCL, Pune; Indian Biodiversity informatics, from National Centre for Biodiversity Informatics; portal for Indian health data and information under WHO/ICMR project—Health InterNetwork India and Indian MEDLARS Centre, New Delhi's web based Indian Biomedical database covering Indian journals.

There is a growing trend in India to bring out electronic journals in different disciplines (with/without a print version) and making them available globally. The Science Academies (INSA, IAS, etc) in India have set the stage and showed way for making scholarly publications available online for facilitating FREE ACCESS, while there are a few others who are following. The national missions such as National Mission for Manuscripts aimed at preserving the valuable manuscripts, which enshrine the cultural and scientific heritage of India., Digital Library of India (<http://dli.ernet.in> & <http://www.dli.gov.in>) a project conceived to put Million books on the Web are all set to support access to invaluable information.

It should be our endeavour to generate distilled point of view of the scientific and academic community on the issues inherent in the future information society for the Indian policy makers in particular and the common people, in general. India has generated high-level research and development capabilities and is endowed with rich cultural and scientific traditions of the past. The advances in digital and communication technologies are of great relevance for efficient societal development and for preserving the rich legacy of the past. In this field we must strongly support north-south and south-south collaborations and look forward to collaboration with other agencies/organizations bilaterally or through multilateral arrangements to tackle issues like that of open access.

What we can do to promote open access? In our endeavour the present special issue is also an attempt towards contributing a bit on open access by taking views and opinions of the experts and disseminating through a medium, which passes through hands of some segments of community that can address promotion of OA and create a niche.

The present issue has in all nine papers, contributed by the proponents of open access movement, most of them internationally known experts. The papers are focusing on various dimensions of open access. Efforts were made to touch upon various issues, so that the present special issue presents an overall scenario of the open access movement with special reference to Indian developments. Thereby presenting a holistic view to all the players who matter.

If access to information is *Driver of Innovation*, then Open Access, Open Source, and Open Content Licensing is the *Driving Force*. Surely with OA movement we are endeavouring towards opening the windows for a better view of scholarly communications and preventing the scholarly communication from suffocation of closed access resources. I would stop here with this final word—Close Content Policy Suffocating, Let us open up!

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