Open access to Scholarly Publishing

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"International Open Access Week" - 19th October 2015



Outline of the Talk

- Introduction
- Scholarly Publishing
- Issues and Challenges
- OA Definition, Models
- Institutional Repositories
- SHERPA/ROMEO
- Current state of OA in India
- Conclusion

Background: Scholarly Publications

- Scientific community publish their research mainly in scientific journals. Journals occupy a special place in scholarly communication.
- Research findings are given away for free to the publishers and scientists do not get paid for publishing their papers or reviewing papers received from journal editors.
- During recent past number of scientists and number journals and journal articles have increased exponentially. Chemical abstract alone cover total 451 million cited references.
- To maximize reputation of a scientist/student it is expected to publish a certain number of papers per year in journals having a certain minimum Impact Factor.
- Having a significant new idea is no longer sufficient: the numbers are what matters along with citations and publishing in high ranked journals matters.

Publishing Industry

- Three companies: Elsevier, Springer, and Wiley mainly dominate scholarly publishing industry.
- Elsevier is the dominant force in science, technology, and medical (STM) publishing, with three times the market share of its closest competitor.
- These commercial scholarly publishers dominate the publishing industry and hence the libraries have to pay heavy subscription renewal costs for fulfilling requirements of their students and faculty members for providing access to core journals which are required for their research.
- There are commercial, societal and academic publishers.

Scholarly Publishing

- Scientists are happy when their work is cited by others as often increased citations help in winning fellowships, awards, promotions and research grants.
- Journal publishers are happy when articles published in their journals are cited as increase in citations leads to increase in impact factors.
- There is intense competition among journals and research institutions to publish more highly cited papers in high impact factor journals.
- As far as quality of research is concerned peer review is the most accepted yardstick in research organizations.

Challenge in Scholarly Publishing

- In the publication cycle scientists publish their work but when they need to access their own content in the course of their work they have to pay to get access or their parent organization need to have paid for the resource in which they have published their work.
- Creators are not paid for their content by the publishers who in turn get paid on every copy of the content sold whereas, they deny access to the community that is made up of these very authors/creators.

Challenge in Scholarly Publishing

- The cost per journal and the number of journals are increasing rapidly, while the funds available to the libraries are reducing or at best, remain constant hence many big university libraries have to face several challenges.
 - Increasing prices of journals
 - Copyright restrictions
 - Increase in gap between have and have not
 - Impact on developing nations

Solution for Scholarly Publishing

- Inter Library loan
- Pay-per-view
- Cancellation of subscriptions
- Consortium-based subscription
- supporting journals that use other publishing models, such as Open Access Journal and Open Archives Initiative

Definition of Open Access

"By open access, we mean the **free availability** of articles on the public internet, **permitting any users to** read, download,
copy, distribute, print, search or link to the full
text of these articles, crawl them for indexing,
pass them as data to software or **use them for any other lawful purpose...**"

- The Budapest Open Access Initiative – February 14, 2002

Open Access

- Open access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions.
- Open access refers to the removal of price and permission barriers to scholarly research.
- Open access movement supports not only students and researchers' work but mainly supports citizens', industries', professionals' development.

Need of Open Access

- OA came into existence as an answer to inaccessible scholarly information.
- Many researchers found that information was increasingly getting unaffordable, what it meant was that few libraries with higher budget could afford scholarly publishing.
- OA helps overcome the divide in information access.
- Another fact is that OA (as known today) came into the picture predominantly due to the Internet.
- Publishers who somehow over a period of time introduced the practice of absolute transfer of rights from authors to themselves.

Open Access

- OA was defined in three influential public statements:
 - the Budapest Open Access Initiative (February 2002),
 - the Bethesda Statement on Open Access Publishing (June 2003), and
 - the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (October 2003).

Self Archiving/Open Access

- Concept of 'self archiving' was proposed by Stevan Harnad in 1994.
- Self archiving is described as "act of depositing a free copy of an electronic paper on the world wide web in order to provide open access to it" (Harnad, 2001).
- Self archiving by authors brought a huge change in the manner in which primary information could reach the end users by surpassing all barriers such as hosting, searching, retrieving and access mechanisms.

Publication versions

- Pre-Print The pre-print is the author's manuscript version of the publication that has been submitted to a journal for consideration for publication.
- Post-Print Author's final manuscript of the publication, which is submitted to the publisher for publication. If published in a peer-reviewed publication, the post-print contains all revisions made during the peer-review process. It does not, however, reflect any layout or copy editing done by the publisher in preparation for publication. As such, proofs and offprints delivered to the author from the publisher are not post-prints. Because the post-print is produced by the author, it is typically a DOC (or other word processing file format) or Tex format.

Publication Versions

- Published Version: The published version is the final version of the article produced by the publisher. When dealing with hard-copy publications, this is the printed version found in books, proceedings and journals.
- In the digital environment, the published version is usually a PDF available through the publisher's Web site or through article databases (although for some online publications, the published version may be in HTML or other file formats).

ArXIV (http://arxiv.org)

- Arxiv.org was started in August 1991, is a highly-automated electronic archive and distribution server for research articles most of which are preprint articles.
- Areas include physics, mathematics, computer science, non linear sciences, quantitative biology and statistics.
- arXiv is maintained and operated by the Cornell University Library with guidance from the arXiv Scientific Advisory Board and the arXiv Member Advisory Board, and with the help of numerous subject moderators.
- Open access to 1,082,761 e-prints in Physics, Mathematics, Computer Science, Quantitative Biology, Quantitative Finance and Statistics.

Open Repositories/Institutional Repositories

- Considering the benefits of arXiv and its acceptance by scientists, in 1994, Stevan Harnad wrote his proposal for electronic publishing in which he argued that all academics should make their research articles publicly available through open repositories to help to reduce the power gained by the publishers.
- This was an influential proposal, and it was the first movement for 'open access'.
- Harnad argued that authors should submit their accepted versions of papers through open repositories or institutional repositories where authors have rights to openly keep their papers on institutional server and make those papers available to all.
- This movement was well accepted by all academic community and many organizations started building institutional repositories.

Institutional Repositories(IR)

- Institutional repositories are collections of pre-prints, working papers, post-prints, lectures, conference proceedings, learning objects, administrative documents, course notes, technical reports that originate from a specific university, colleges or institutions.
- Collections of electronic theses & dissertations and scientific papers are the most popular form of any institutional repository.
- The learning objects may include study materials, assignments, question papers, audio-video materials and multimedia presentations.

IR

- Institutional repositories (IRs) have increasingly been deployed in academic institutions in order to
 - organize,
 - preserve,
 - access, and
 - facilitate use of digital content produced by members of their communities.
 - Search is the most obvious example IR.
- EPrints is one of the software used quiet often for building IRs.
- There exists a couple of other Open Source Software for scholars to manage their own digital content and making them available to all on Internet.

International OA Initiatives

• U. S. National Library of Medicine "Medline" as PubMed Central® (PMC) is a free full-text archive of biomedical and life sciences journal literature which contains around 3.6 million articles. Free access to all of its journal literature is a core principle of PMC.

http://http://www.ncbi.nlm.nih.gov/pubmed

 MIT OpenCourseWare (OCW) is a web-based publication of virtually all MIT course content. OCW is open and available to the world and is a permanent MIT activity.

http://http://ocw.mit.edu/index.htm

NDLTD: Thesis and Dissertations

http://www.ndltd.org/resources/find-etds

E-LIS (http://eprints.rclis.org) Eprints in Lib. & Inf. Sci.

OpenDOAR



www.opendoar.org/countrylist.php



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OpenDOAR

Directory of Open Access Repositories

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OpenDOAR - Countries and Organisations

Africa | Asia | Australasia | Caribbean | Central America | Europe | North America | Oceania | South America | [Unspecified]

Click on a name to see the corresponding OpenDOAR summaries, or on a URL to visit the relevant website.

AFRICA

Algeria | Botswana | Cameroon | Cape Verde | Egypt | Ethiopia | Ghana | Kenya | Lesotho | Morocco | Mozambique | Namibia | Nigeria | Rwanda | Senegal | South Africa | Sudan | Tanzania | Tunisia | Uganda | Zambia | Zimbabwe

Algeria

- Bouira University http://www.univ-bouira.dz/
 - 1. Bouira University Digital Space

http://dspace.univ-bouira.dz:8080/jspui/

- Centre de Développement des Energies Renouvelables http://www.cder.dz/
 - 1. Bibliothèque virtuelle des Energies Renouvelables

http://www.cder.dz/vlib/index.php

- Centre de Recherche Scientifique et Technique en Soudage et Contrôle CSC http://www.csc.dz/
 - 1. CSC Digital Library

http://library.csc.dz/

- CERIST http://www.cerist.dz/
 - 1. Cerist Digital Library

http://dl.cerist.dz/

- Université Abou Bekr Belkaid Tlemcen http://www.univ-tlemcen.dz/
 - 1. dspace@UABT

http://dspace.univ-tlemcen.dz/

- Université El-Hadj Lakhdar Batna http://www.univ-batna.dz/
 - 1. Bibliothèque Centrale

Open Access Journal

- Open access journals are scholarly journals that are available to the reader "without financial or other barrier other than access to the internet itself."
- Open access journals (also called the "gold road to open access") is one of the two general methods for providing open access. The other one (also called the "green road") is self-archiving in a repository.
- The publisher of an open Access journal is known as an open access publisher, and the process, open access publishing.

Open Access Publishing

- The author(s) and copyright holder(s) grant(s) to all users a
 - free,
 - irrevocable,
 - worldwide,
 - perpetual (for the lifetime of the applicable copyright)
 - right of access to, and
 - a license to copy, use, distribute, perform and display the work publicly and
 - to make and distribute derivative works in any digital medium for any reasonable purpose, subject to proper attribution of authorship as well as the right to make small numbers of printed copies for their personal use.

Scholarly Open Access Critical analysis of scholarly open-access publishing

Home	About the Author		Disclaimer	LIST OF PUBLISHERS	LIST OF STANDALONE JOURNALS	
Other pages						

LIST OF PUBLISHERS

Beall's List:

Potential, possible, or probable predatory scholarly open-access publishers

This is a list of questionable, scholarly open-access publishers. We recommend that scholars read the available reviews, assessments and descriptions provided here, and then decide for themselves whether they want to submit articles, serve as editors or on editorial boards. The criteria for determining predatory publishers are here.

We hope that tenure and promotion committees can also decide for themselves how importantly or not to rate articles published in these journals in the context of their own institutional standards and/or geocultural locus. We emphasize that journal publishers and journals change in their business and editorial practices over time. This list is kept up-to-date to the best extent possible but may not reflect sudden, unreported, or unknown enhancements.

o The 5th Publisher

Search	
Search	

RECENT POSTS

- o David Publishing Company, a Massive Spammer from China
- o Philippines Journal Charges Two Excessive Fees, Exaggerates IF
- o Publisher Acts Suspiciously Like OMICS Group
- o More Duplication of Journal Titles and Conference Names by Predatory Publishers
- o Article Broker Offers to Write Articles for Researchers, Arrange Publication

ARCHIVES

Select Month :

Open Access Journal

- Author/Researcher
- Manuscript submission
- Peer review process
- Publishing cost paid by author
- Copyrights owned by author
- Archiving digital
- Article dissemination, Reader's access
- Free open access online

Types of OA

- There are many types of open access:
 - Green refers to self-archiving generally of the pre or post-print in repositories
 - Gold refers to articles in fully accessible open access journals
 - Hybrid 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.

OA Model:Green

- Green OA, refers to situations in which researchers deposit a copy of their work in an institutional repository, even when it was published in a commercial journal.
- The final manuscript of the author's research paper post-print should be deposited in the author's Institutional Repository.
- This is the author's own final draft, as accepted for journal publication, including all modifications resulting from the peer review process. (In addition, depositing pre-peer review drafts, 'preprints', is welcome, if the author desires early priority and peer feedback, but this is just an option available to authors and not a requirement. In some cases publishers may permit their own published version, either in SGML/XML or PDF, to be deposited as well.)

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Green OA

- Though green open access generally refers to the postprint of an article, there are three basic version types that can be self archived in repositories:
- Pre-Prints The author's copy of article before it's been reviewed by the publisher, or pre-reviewed
- Post-Prints The author's copy of article after it's been reviewed and corrected, but before the publisher has formatted it for publication, or post-reviewed.
- Publisher's Version The version that is formatted and appears in print or online.

How to achieve Green OA

 When electronic version of the author's final manuscript resulting from research supported, in whole or in part, by Government funding should be deposited immediately upon acceptance for publication.

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Benefits of OA

- OA is not a sacrifice for authors who write for impact rather than money. It increases a work's visibility, retrievability, audience, us-age, and citations, which all convert to career building.
- OA isn't an attempt to bypass peer review. OA is compatible
 with every kind of peer review, from the most conservative to
 the most innovative, and all the major public statements on OA
 insist on its importance.
- Because scholarly journals generally don't pay peer-reviewing editors and referees, just as they don't pay authors, all the participants in peer review can consent to OA without losing revenue.

OA Mandate

- Many funders of research, particularly in government, now require that funded research be archived in a publicly accessible form, usually without embargo such as NIH, Harvard, MIT, Research, Councils UK, U. of Southampton.
- Embargo: A period of time before access is "opened."
 Many publishers require an embargo on post -prints or finalized publications.
- In India DST DBT CSIR adopts open access policy.

Copyright Addenda

- Journal publishers send authors of accepted papers a copyright agreement form along with the proofs. Often the language used in these forms demand the authors to give away copyright of the papers to the publishers.
- In the past few years, authors are becoming aware of the benefits of retaining certain rights, such as right to reproduce figures, tables, etc., in future writings (review articles, monographs), right to reproduce multiple copies for use in a course they teach, and the right to archive the paper in their institution's repository.
- What is more, most publishers are ready to grant these rights if only authors request for them.

SHERPA/ROMEO

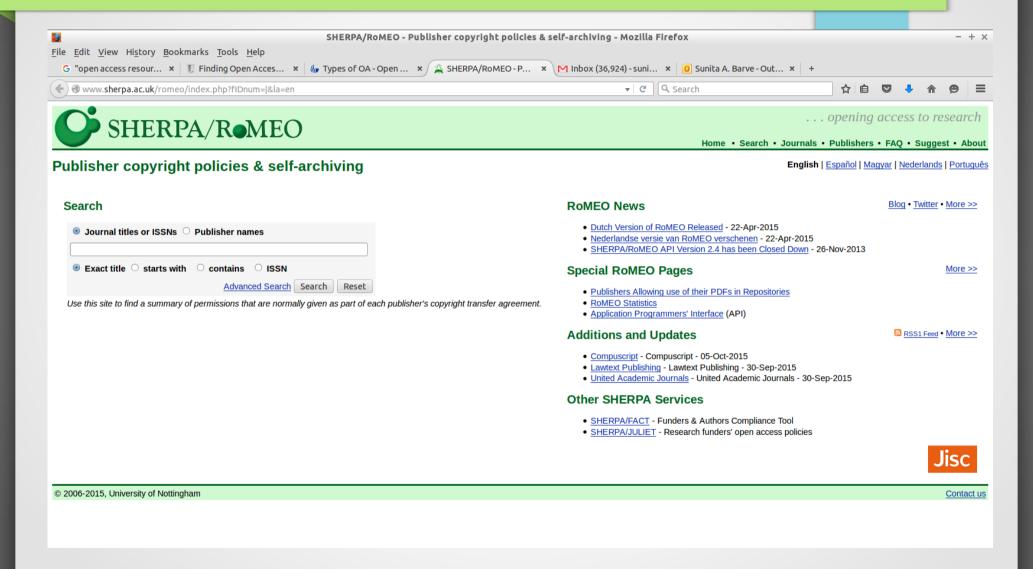
- SHERPA Securing a Hybrid Environment for Research Preservation and Access
- RoMEO is a searchable database of publisher's policies regarding the self- archiving of journal articles on the web and in Open Access repositories.

 SHERPA/RoMEO classifies publishers into colors for easy identification:

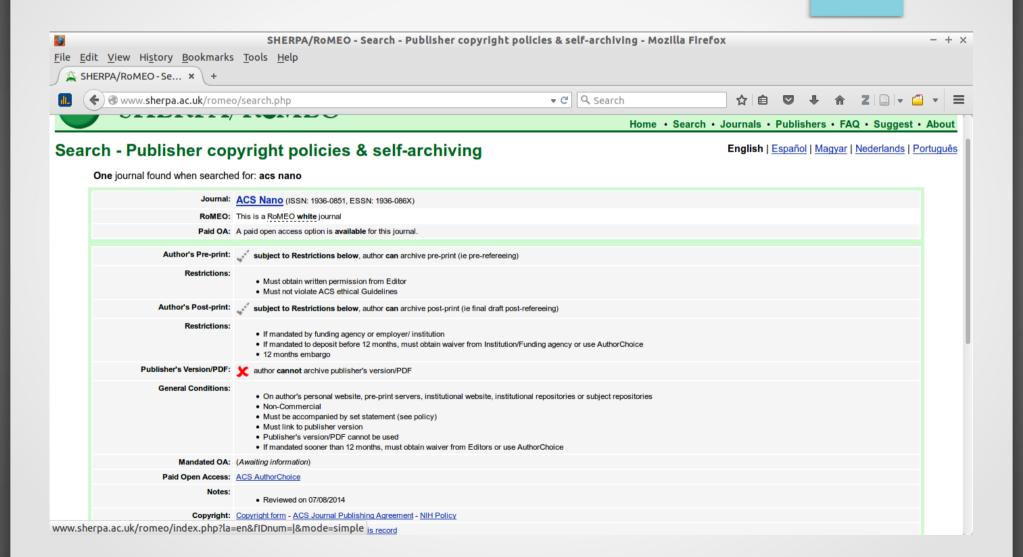
RoMEO Colour	Archiving policy
Green	Can archive pre-print and post-print or publisher's version/PDF
Blue	Can archive post-print (ie final draft post- refereeing) or publisher's version/PDF
Yellow	Can archive pre-print (ie pre-refereeing)
White	Archiving not formally supported

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SHERPA/ROMEO



SHERPA/ROMEO



OA Resources

Directory of Open Access Journals (DOAJ)

http://www.doaj.org/

The Digital Library of the Commons (DLC)

http://dlc.dlib.indiana.edu/journals.html

Free Full Text

http://www.freefulltext.com/

Free Medical Journals

http://www.freemedicaljournals.com/

HighWire Press: Free Online Full-text Articles

http://www.highwire.org/lists/freeart.dtl

OA Publishers

BioMed Central

http://www.biomedcentral.com/home/

Directory of Open Access Journals (DOAJ)

http://www.doaj.org/

Public Library of Science (PLoS) http://www.publiclibraryofscience.org/

PubMed

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed&itool

=toolbar

PubMed Central (PMC)

http://www.pubmedcentral.org/

SciELO

http://www.scielo.org/index.php?lang=en

OA Archives

Core Metalist of Open Access Eprint Archives http://opcit.eprints.org/explorearchives.shtml

Directory of Mathematics Preprint and e-Print Servers http://www.ams.org/global-preprints/index.html

Directory of Open Access Repositories http://www.opendoar.org/

E-print Network, U.S. Department of Energy (DOE) http://www.osti.gov/eprints/

Experimental OAI Registry at UIUC http://gita.grainger.uiuc.edu/registry/

Institutional Archives Registry http://archives.eprints.org/

Virtual Technical Reports Center: EPrints, Preprints, & Technical Reports on the Web http://www.lib.umd.edu/ENGIN/TechReports/Virtual-TechReports.html

OA Subject Archives

arXiv http://arxiv.org/

Cogprints http://cogprints.org/

DLIST http://dlist.sir.arizona.edu/

E-LIS: E-prints in Library and Information Science http://eprints.rclis.org/

NASA Astrophysics Data System http://adswww.harvard.edu/

RePEc http://repec.org/

OA Search Engines

Blogdigger http://www.blogdigger.com/

Citebase http://citebase.eprints.org/cgi-bin/search

Google Scholar http://scholar.google.com/

OAlster http://oaister.umdl.umich.edu/o/oaister/

Perspectives in Electronic Publishing http://aims.ecs.soton.ac.uk/pep.nsf

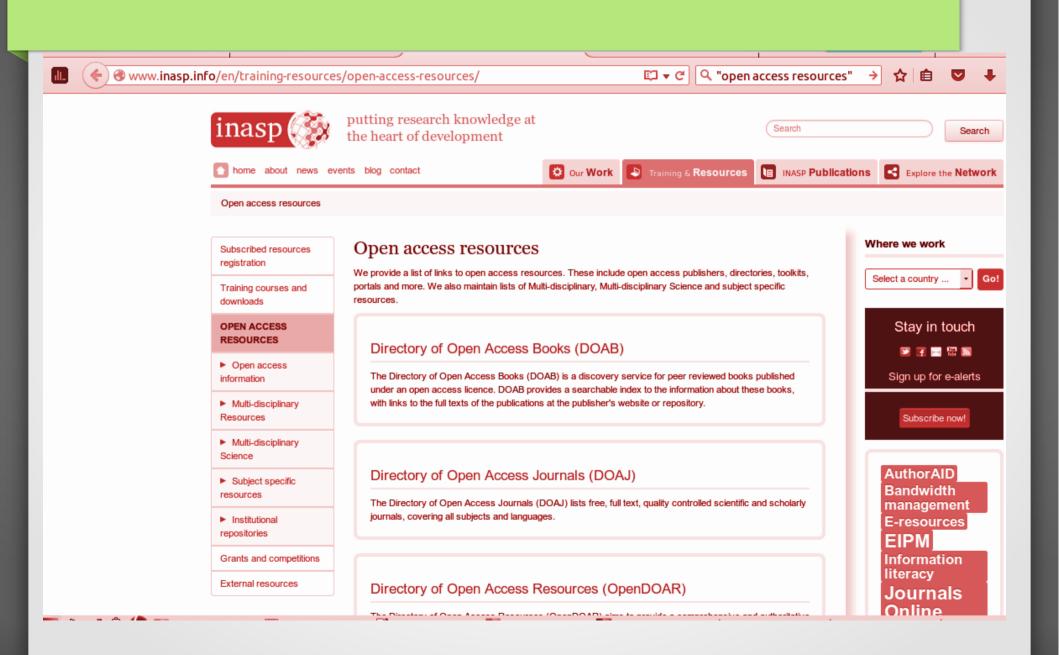
Scirus http://www.scirus.com/srsapp/

Indian OA Journals

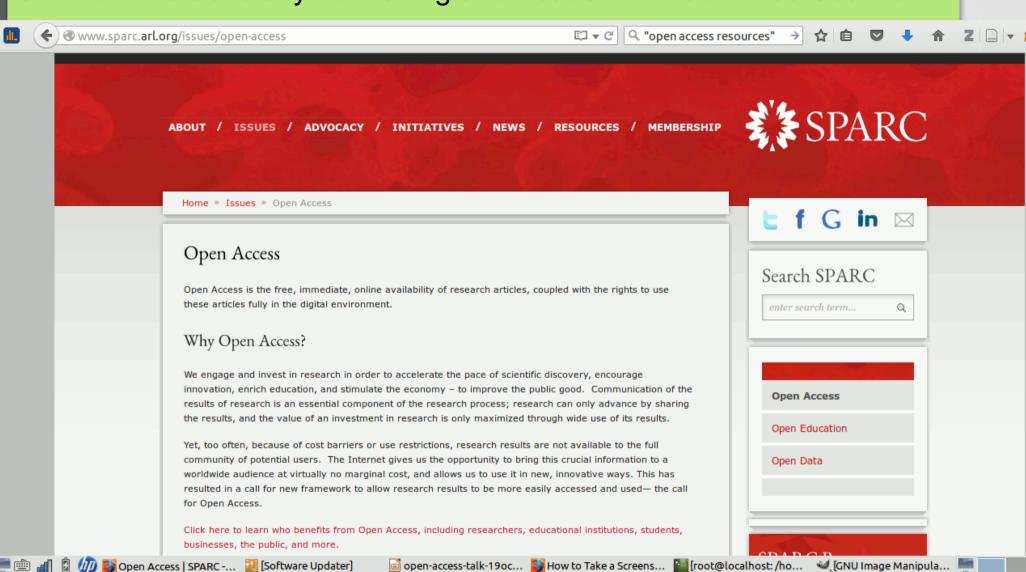
- Academy & Industry Research Collaboration Center (AIRCC) http://airccse.org/
- NISCAIR Journals http://www.niscair.res.in/ScienceCommunication/sci.asp? a=topframe.htm&b=leftcon.asp&c=ResearchJournals/rejour/rejour1.htm&d=test
- Impact Journals http://www.impactjournals.us/index.ph
- Indian Academy of Science http://www.ias.ac.in
- Indian National Science Academy http://www.insaindia.org
- Indian Medlars Centre MedInd journals http://www.indmed.nic.in/medindlist.html
- Indian Society for Education and Environment http://www.iseeadyar.org/index.html
- Medknow Journals http://www.medknow.com
- Sankhya: the Indian Journal of Statistics http://sankhya.isical.ac.in/index.html

Indian Funding Agencies

- Council of Scientific and Industrial Research (CSIR),
- Defence Research & Development Organization (DRDO),
- Department of Atomic Energy (DAE),
- Department of Biotechnology (DBT),
- Department of Science and Technology (DST),
- Department of Space (DoS),
- Ministry of Earth Science (MoES),
- Indian Council of Agricultural Research (ICAR),
- Indian Council of Medical Research (ICMR),
- Ministry of Communication and Information Technology(MCIT),
- Ministry of Environment and Forests (MoEF) and
- Ministry of Non-conventional Energy Sources (MNES).
- Major higher educational institutions such as Indian Institute of Science (IISc) and,
- Indian Institutes of Technology (IITs) also make substantial contributions.



SPARC: the Scholarly Publishing and Academic Resources Coalition

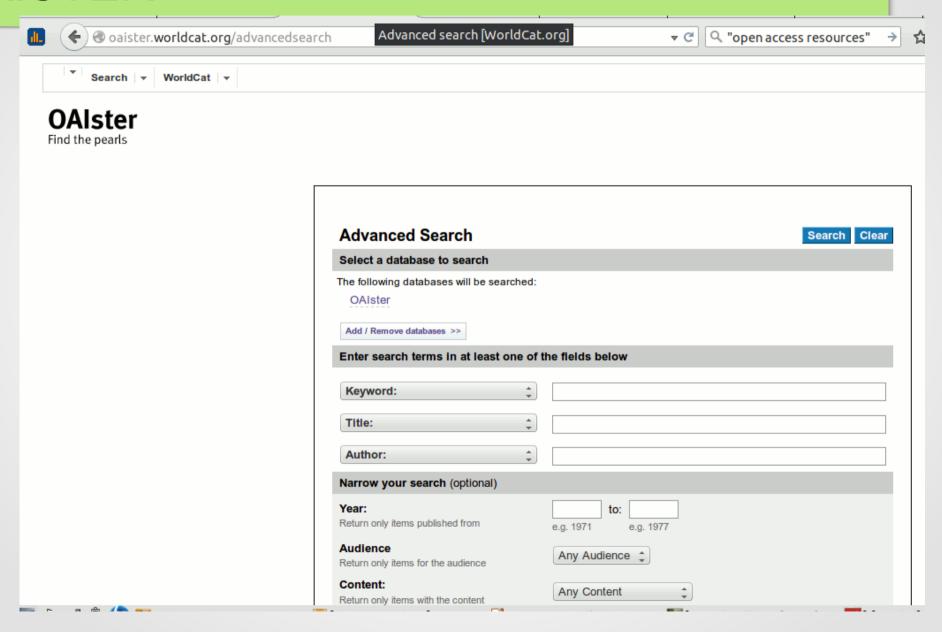


- Organizations Involved in promoting OA
- Alliance for Taxpayer Access (http://www.taxpayeraccess.org/)
- Creative Commons (http://creativecommons.org/)
- Internet Archive (http://www.archive.org/)
- Open Access Working Group (http://www.arl.org/sparc/oa/oawg.html)
- Open Archives Initiative (OAI) (http://www.openarchives.org/)
- Scholarly Publishing and Academic Resources Coalition (SPARC) (http://www.arl.org/sparc/)

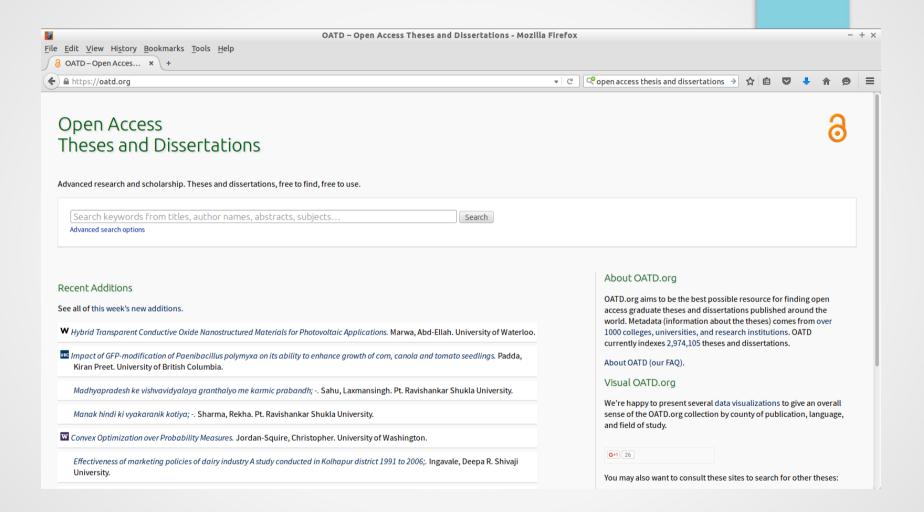
OAISTER

- OAIster is a union catalog of millions of records representing open access digital resources that was built by harvesting from open access collections worldwide using the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH).
- Today, OAIster includes more than 30 million records representing digital resources from more than 1,500 contributors.
- Additionally, the OAIster records are included in search results for those libraries with WorldCat Local and WorldCat Local "quick start."

OAISTER



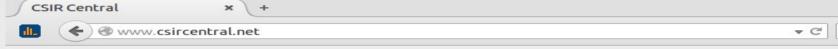
OATD: Open Access Thesis & Dissertations



Indian OA initiatives:

- Indian Academy of Sciences -
- Medknow An Innovative Open Access Journal
- EPrints@IISc
- Medlars: Indian Medical Journals
- NISCAIR Journals
- Large number of organizations have now established Institutional Repositories and many funding agencies also have made it mandate to have "open access" in their organizations.

CSIR Central









HOME SEARCH BROWSE

About CSIR CENTRAL

CSIR-CENTRAL is Centralized Institutional Repositories Hosting Service for CSIR Labs and a Harvester service for CSIR Institutional Repositories.

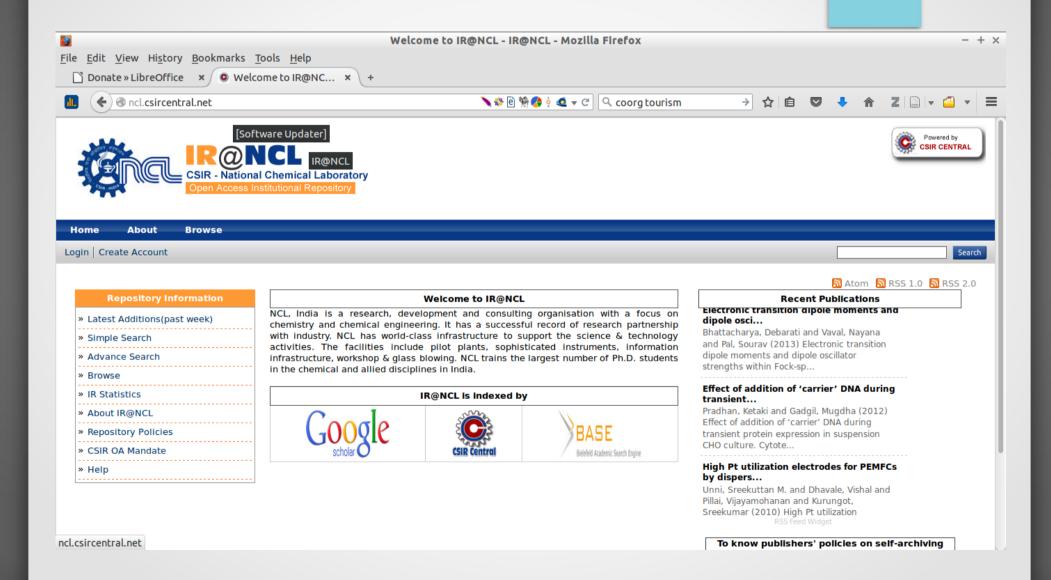
Individual OAI-PMH Compliant Institutional Repositories have been configured and customized on the central server for the each of CSIR labs which do not have Institutional Repositories in their own data centre. All CSIR lab's repositories are being regularly harvested by the central harvester. This value added service enables the research community to search and view the R & D literatures from different CSIR Institutes through a single console.

The **csircentral.net** is a main domain under which sub domains for each laboratory's IR are created like ncl.csircentral.net, npl.csircentral.net etc. This serves the purpose of 'One CSIR'.

The csircentral server is hosted and maintained by CSIR-Unit for Research and Development of Information Products, Pune.



IR@NCL



IR@NCL: OA Management

Author Manuscript: Published in Indian Journal of Chemistry, Vol. 52A, November 2013, 6 p.

Unusual salting effects in ionic liquid solutions

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Received 2 September; revised and accepted 3 October 2013

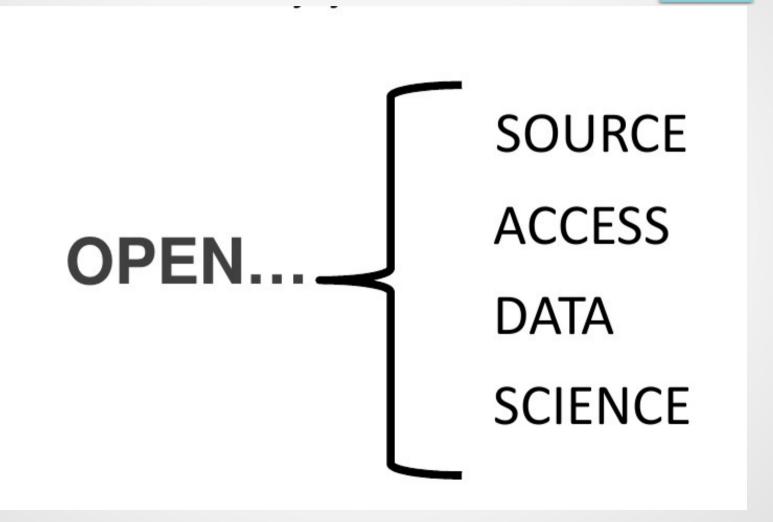
Unusual salting effects of salting-out agents like LiCl and NaCl and salting-in agents like LiClO₄ and NaClO₄ in ionic liquid solutions are reported. It is observed that the salting behavior in water can be altered in the presence of ionic liquids. It is demonstrated that the salting-in agents in the presence of the ionic liquids with higher alkyl chain can display unusual fall and rise in the viscosity of the systems. On the other hand, no change in the behavior of the salting-out agents is noted in these ionic liquids. A tentative explanation is proposed for the observed viscosity data in these systems.

Keywords: Ionic liquids, Salting effects, Viscosity, Cationic ring

It has long been established that the ions of strong electrolytes enable the water molecules to orient around themselves. The concept of "water structure-breakers" and "water structure-makers" was first introduced by Gurney¹ and Frank and Wen,² who postulated that each ion is surrounded by three distinct regions of water structure. Several years ago, the notion of the water structure with regard to the presence of ions was proposed.³ In the first layer, the

the research activity with respect to the synthesis, characterization and applications of special materials called ionic liquids. 8-14 Ionic liquids have wide applications in a variety of processes because of insignificant vapor pressure, recyclability, wide liquidus range, wide electrochemical window, high thermal stability and non-flammability, to name a few. 15-16 Ionic liquids are molten organic salts compressing an asymmetric organic sation and a

Future



Conclusion

- All publicly funded research should be made "open access"
- Each research performing institution sets up IR where all authors will be required to deposit the full text of each one of their papers in its final accepted version on IR.
- The Heads of the organizations make it mandatory for all research publications be "open access".
- Heads of Research Councils/ Apex bodies (such as CSIR, ISAR, ICMR, DRDO, UGC) mandating open access in all institutions coming under their purview.

Conclusion

- The funding agencies [such as DST, DBT, DAE] mandating open access to all research papers resulting from projects funded by them.
- Science Academies (including Academies of Agriculture, Engineering and Medicine) should play an active role in bringing about a culture of open access.
- The Ministers in charge of Ministry of Human Resources
 Development and the Ministry of Science and Technology may
 together pilot an Open Access to Publicly Funded Research
 bill in the Parliament (similar to the FRPAA bill in the USA) and
 give open access legal status.

References

- Open access by Suber, Peter, MIT Press, 2012, 245 p.
- Open Access to Scholarly Literature in India A Status Report by Prof. S. Arunachalam & Madan Mutthu, Centre for Internet and Society, Bangalore, India, 2011, 9 April 2011 (Draft),

http://cis-india.org/openness/publications/open-access-scholarly-literature.pdf/view

- Concept of openness and open access by Madalli, Devika, UNESCO, 2015, (http://unesdoc.unesco.org/images/0023/002322/232207E.pdf)
- http://iitgn.ac.in/iitgn_new/sites/default/files/OAW.pdf (Open access literature)

Thank You!