

## A non-US non-UK Perspective on OA (Open Access)

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Open access is being talked about, and implemented, around the globe, by everyone from the U.N. to individual authors, editors, and publishers, and collaborative groups. As of October 2004, requests for a government mandate for OA had gone forward not only in the U.S. and the U.K., but also Croatia. The Scielo (Scientific Electronic Online) collections of Latin America are very substantial, fully open access journal collections. In the developing world, OA is seen not only as the best means to access the research results of others, but as an opportunity to contribute their own scholarly research findings.

The purpose of this session is to present a few OA projects and perspectives on open access from around the world, from my viewpoint as an enthusiastic advocate of open access. For more information about OA, go to Peter Suber's excellent OpenAccess Overview, at <http://www.earlham.edu/~peters/fos/overview.htm>

There are many sessions on open access at this conference, and no doubt details about the definitions (Budapest, Berlin, Bethesda) will be covered. For the purposes of this session, a simple definition of Open Access will be used: making scholarly journal article sfreely available to anyone, anywhere over the world wide web. There are two basic types of open access. The "gold" road is OA publishing, that is, journals which are published as fully open access in the first place. The "green" road is OA self-archiving, where authors make a copy of their article openly accessible, whether in an institutional repository, departmental or personal website.

People talk about the OA movement as based on faith and vision, not down to earth. So let's start here - with vision. How is this for a vision statement?

**We...the peoples of the world...declare our common desire and commitment to build a people centred, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge...**

Beautiful, isn't it? This statement was developed by representatives of the world's governments, at the first United Nations Summit with invited participation from the corporate community. That is, the World Summit on the Information Society (WSIS), first phase, Geneva, Dec. 2003, Declaration of Principles A1 <http://www.itu.int/wsisis/>

For anyone who cares about scholarly communications and/or libraries, the WSIS documents are well worth reading. For example, the Declaration of Principles talks about the importance of sharing of research results. Being able to both access and contribute information, ideas, and knowledge is stressed, as is a rich public domain with easily accessible information. The Principles talk about institutions such as libraries being strengthened to promote the preservation of documentary records, and free and equitable access to information. Librarians are portrayed as playing an active role in promoting the Information Society.

Open Access is specifically mentioned in both the WSIS Principles and Plan of Action. Principle A28 states “We strive to promote universal access with equal opportunities for all to scientific knowledge and the creation and dissemination of scientific and technical information, including open access initiatives for scientific publishing”.

The WSIS Plan of Action supports a number of approaches to facilitate access: OA or affordable access (the HINARI/AGORA type approach), open access or open archives. For example, “Encourage initiatives to facilitate access, including free and affordable access to open access journals and books, and open archives for scientific information. (Plan of Action C.3.10.I). E-Science: promote electronic publishing, differential pricing and open access initiatives to make scientific information affordable and accessible in all countries on an equitable basis. (Plan of Action C.7.22.b).

The main goals of the WSIS are to use ICTS (Information and Communication Technologies) to achieve the Millenium Declaration goals, such as eradication of extreme poverty and hunger, universal primary education, gender equality, maternal health, combat HIV/AIDs, malaria and other diseases, ensure environmental sustainability, and develop global partnerships for development for the attainment of a more peaceful, just and prosperous world.

There are some real challenges here - broadband in every village, primary education for everyone around the world. There are people working hard to figure out how to achieve these goals!

Open Access is much easier to achieve than the main goals of the WSIS - we are already doing most of the work on a voluntary basis, and paying more than what would be needed for a fully open access scholarly communications system, in the author's opinion. There are transitional issues, of course, but the resources are already there.

One of the most substantial OA collections around the world is Scielo (Scientific Electronic Library Online) <http://www.scielo.org> Scielo includes over 200 open access journals online from Brazil, Chile, Cuba, and Spain. Scielo features an English / Spanish / Portuguese search portal. Subjects covered include: health sciences, social sciences, agriculture, psychology/psychiatry, animal science, veterinary medicine, and engineering.

Outside the U.S. / U.K., government subsidy is a common means of subsidizing academic publishing. In places where profit is unlikely, this is necessary, as this is often the only means of ensuring that academic work is published. Where this is the case, the difference between OA and non-OA in economic terms is simply that OA costs less - there is no need to spend money to develop and support authentication mechanisms to prevent people from accessing the information.

Scielo Cuba lists 15 open access journals, all medical titles. Looking at this list in conjunction with the NIH proposal in the U.S., it looks like we have two world leaders in making their medical information accessible, in different ways - Cuba and the U.S.

Considering the historical and political differences of the two countries – it seems unlikely that this was planned! According to the Scielo Cuba web site, Cuba has plans to eventually make all their scholarly knowledge openly accessible

The Scielo collection is substantial – libraries should be helping users to find and use this resource. If a tiny communist country like Cuba, with a GDP of \$32 billion, can figure out how to make their scholarly knowledge fully open accessible, while our largest commercial STM publishers, for example Reed Elsevier with a gross revenue of \$8.8 billion, seem to be having trouble with this - maybe these for-profit commercial, capitalist publisher types need to go to communist Cuba...to learn how to run their businesses!

Bioline International <http://www.bioline.org.br/>, a nonprofit initiative managed by scientists and librarians, assists publishers and authors in developing countries with making their journals and articles openly accessible. One of the goals of Bioline is to reduce the south to north knowledge gap, so that scholars in developing countries have the opportunity to contribute to the world's collective knowledge. There are over 30 open access journals hosted on the Bioline website. Publishing on this website is not required, nor is making journal openly accessible, although this is encouraged.

Initiated in 1993, Bioline International's goal is to assist publishers in developing countries. Open access was not part of BI's original mandate, but rather a conclusion reached based on experience. Bioline International is coordinated by University of Toronto Library (management office), the Reference Centre on Environmental Information, Brazil (host computer and software development), and Bioline/UK (liaison).

One of the journals produced with Bioline International's assistance is the Journal of Postgraduate Medicine (JPGM), one of the oldest medical journals from India, continuously published since 1911. JPGM (<http://www.jpgmonline.com/>) illustrates the high quality and careful attention to detail of Bioline's work. The site is visually pleasing, and highly functional. The JPGM prominently displays a lengthy list of leading literature databases where the journal is indexed, ranging from Index Medicus to CAB Health, Cancerlit, and Toxline, to name a few.

Indexing is a real concern to publishers and authors outside the U.S. / U.K. - even if you give your articles away for free, if people are using indexes that don't include your journals, your articles will not be found.

The "green" approach to open access, or authors' self-archiving is very much in evidence outside the U.S./U.K. as well. We'll look at three "green" projects: the Bioline International e-prints archive, and the Indian Institute of Science and CARL Institutional Repositories. To date, collection growth has been slow but steady. The author's prediction is that the "green" approach will show a dramatic growth increase within the foreseeable future.

Bioline International provides a free e-prints archive for authors from developing countries. There are over 1,640 records in the archive <http://bioline.utsc.utoronto.ca/>. A search by date in October 2004 illustrated the slow growth in use of the archive, from 148 articles published in 2001 to 622 so far for 2004.

The E-Prints Archive of the prestigious Indian Institute of Science, containing over 1,000 items, can be found at <http://eprints.iisc.ernet.in/>. Like Bioline International, there is a gradual increase in the number of items submitted over the years. The earliest publication date in this e-prints archive is 1975. This illustrates one of the advantages of the “green” approach – it provides a means to open up access to previously-published articles.

The Canadian Association of Research Libraries (CARL) members are committed to the development of institutional repositories. As a glance at the CARL Institutional Repository site [http://www.carl-abrc.ca/frames\\_index.htm](http://www.carl-abrc.ca/frames_index.htm) in October 2004 illustrates, this program is very much in the early developmental stages. At this time, of the 27 university library members of CARL, only 7 had operational institutional repositories. Many repositories are still in early planning stages. Simon Fraser University Library acts as coordinator of the CARL metadata harvester. So far, SFU’s own Institutional Repository, with only 17 items, is still in project stage – in the process of perfecting the software and policies.

Let’s look at the SFU library D-Space Institutional Repository Project, [http://www.lib.sfu.ca/about/projects/institutional\\_repository/about/mission.htm](http://www.lib.sfu.ca/about/projects/institutional_repository/about/mission.htm), to see why the author predicts that the slow growth of IRs will be replaced with very dramatic growth in the very near future. Even though SFU is not one of the larger repositories at this time, it’s the one the author is most familiar with.

According to the SFU Library web site, advantages of the SFU D-Space are:

- for the user: easy remote access through world wide web
- for the contributor
  - digital access
  - long term-preservation
  - variety of formats
- for the institution
  - access to selected research of the university through one interface

In addition to peer-reviewed journal articles by SFU faculty, the SFU Library IR will host other kinds of information, such as the papers from the Digital Games Research Association Conference <http://www.digra.org/> to be held in Vancouver June 16 – 20, 2005. at SFU next year. This conference could add up to 100 papers to the IR. This illustrates one of the reasons why the author believes that IRs will show dramatic growth – because the growth, in some cases, will come from the addition of entire collections (whether conference proceedings, departmental or individual author collections), not always just one article at a time.

The SFU Library Institutional Repository is where you will find the author's own works. This is where you will find the powerpoint for this presentation - converted to pdf, so as to be accessible to anyone. As an author, I appreciate having the IR, which both looks after my work (makes sure it is archived) and makes it accessible (I can cite my own work, and know that anyone who sees the citation can click through to the article). This demonstrates a second reason why the author anticipates rapid growth in the IRs in the near future: once authors experience directly the benefits of self-archiving, in terms of both impact and convenience, they will likely be very interested in ensuring their works are added to the IR.

An additional advantage to the institutional repository is that it makes available to the university community the work of its own faculty. 3 of the first 5 titles (60%) are articles published in journals not purchased by SFU library: Collection Building, Library Hi Tech News, and Letter of the LAA. These are not expensive journals - it's just that no library can afford to subscribe to all the journals.

A brief look at a few of the many recent and upcoming conferences around the world devoted to open access illustrates the third reason why the author anticipates rapid growth in the development of institutional repositories:

Selected recent / Upcoming OA conferences

- Pretoria July 2004 <http://isis.sabinet.co.za/dspace/handle/123456789/38>
- India September 2004 Journal of Postgraduate Medicine Gold Con  
[http://www.jpgmonline.com/gc\\_pdetails4.asp](http://www.jpgmonline.com/gc_pdetails4.asp)
- Canada October 2004 [http://www.carl-abrc.ca/frames\\_index.htm](http://www.carl-abrc.ca/frames_index.htm) Institutional Repositories: the Future is Now!
- Kiev, Ukraine Dec. 2004 <http://www.irf.kiev.ua/en/anns?doc:int=1234>

This is just a small sample of the OA conferences held recently, or coming up, around the world. Watch for the OA self-archiving approach to grow dramatically in India, for instance, as they have just held their conference, with lots of emphasis on e-prints and author self-archiving.

The Public Knowledge Project of the University of British Columbia <http://www.pkp.ubc.ca/> has created free, open source software for creating and managing journals (Open Journal Systems) and conferences (Open Conference Systems). Like Bioline, open access is optional – but encouraged.

Let's look at some projects & journals that use the PKP software, and talk about the evolution of business models for online journals. We'll see why OA just makes sense!

African Journals Online (AJOL) <http://www.ajol.info/>, a collection of over 200 African journals online, use Open Journals System software. Abstracts are freely available online, but not fulltext - yet. The Sahara Journal: Social Aspects of HIV/AIDs is the first of these journals to become freely available online.

A search for an article in The Nigerian Journal of Health and Biomedical Sciences, like most of the AJOL journals, yields a freely available abstract. Users are invited to click a link that says “Request article”.

Ordering the article involves a requesting process. For some requestors, there is a charge involved.

Note that anyone who has internet access who can get to this point can access many materials on the internet for free, as well as Scielo journals, JPM, etc. Many will also have access to significant subscription resources, whether they are connected with a library that can pay the subscription fees, or access has been provided for free through HINARI, AGORA, etc.

Articles from The Nigerian Journal of Health and Biomedical Sciences, are more difficult to access than these other resources, even for the users who are entitled to free copies of the articles. Is it obvious yet why people are more likely to read and cite an article from this journal once it becomes freely available online?

We’ve looked at why NOT making our article OA can discourage use. Now let’s look at some reasons why giving away our knowledge benefits us. We get more value from giving away our information than we ever possibly could get from cost-recovery.

If the article were open access, it would be more likely to be read and cited, by some people the author would probably like to be reading and citing the article - other researchers, or commercial entities like pharmaceutical companies that just might want to invest in the author’s research.

The knowledge we give away just might result in an epidemic being discovered early and contained in another country, and never affecting us at all. Similarly, what our neighbour learns about food handling improves our own food safety, whenever we import our food. What our neighbouring country learns to protect or repair their environment impacts our own air, water, etc.

One interesting example of an open access journal that uses PKP software is the Asia-Pacific Forum on Science Learning and Teaching <http://www.ied.edu.hk/apfslt/>. This appears to be an ad hoc collaboration, involving Canadian software, a Hong Kong publisher, and sponsors from several different geographic regions and of several different types, from government to nonprofit to commercial publishers. This is also a partially bilingual journal, with articles and abstracts in english and/or Chinese.

The United Nations sponsored a forum on open access from Sept.20 – Oct. 4, 2004, entitled *Open Access to Scholarly Publications: A Model for Enhanced Knowledge Management?* A report on this forum can be found at Reflections on the Debate Prepared by: Helen Doyle and Andy Gass, The Public Library of Science [http://www.gpgnet.net/pdfs/eighth\\_discussion.pdf](http://www.gpgnet.net/pdfs/eighth_discussion.pdf)

Forum messages are available at

<http://groups.undp.org/read/?forum=gpgnet-oa>. Following are some comments based on this discussion, which illustrate that open access is a worldwide phenomenon.

e-polymers <http://www.e-polymers.org/>, an open access journal from Poland, is seen as the answer to the paradoxical situation that scientists in universities cannot (or hardly can) afford to subscribe to journals which - at the same time - they strongly support by submission of high-quality papers, refereeing etc. Its creation is an act of self-defence of the scientific community. e-polymers appears to be experimenting with OA funding models. Their website includes advertising, mentions a membership model, and states that it is free to libraries worldwide on request (while all articles are readily accessible from the web)... The total cost of publication is calculated at about the price of about 10 subscriptions to a leading journal in this field.

gpgnet, <http://groups.undp.org/read/messages?id=97695#97695>

H.G. Rucinke, of Bogota, Columbia, edits the OA journal GeoTropico

<http://www.geotropico.org/>. Rucinke states: “in Latin America, Africa and large parts of Asia and Oceania, inaccessibility to scholarly publications is the common fact. Open access is the alternative to stay updated in the Third World, as well as the least costly outlet for publication.” gpgnet <http://groups.undp.org/read/messages?id=98810#98810>

H.F. Rucinke has been publishing GeoTropico as an open access journal using personal funds. While this is not recommended as a sustainable model for open access publishing, it does show just how important open access is for some.

For a German doctor working in the field of Leukemia research in the field in Chernobyl and Siberia, “access - or rather the lack of access to current research results was always a crucial factor”. Rolf Neth welcomes ever increasing open access to scientific results as a human rights to information issue, and is convinced that not only is open access the best possible model for philosophical reasons, but the only sustainable economic model at some point in the future for scholarly communication. gpgnet

<http://groups.undp.org/read/messages?id=98584#98584>. The beliefs of Rolf Neth and colleagues led to the development of the Wilsede Portal for free science information transfer

<http://www.internet-portal-wilsede.com/>

Here is a view from Croatia, where, like the U.S. and the U.K., a proposal for government mandated OA had gone forward: “For instance, in Croatia, majority of scientific journals is subsidised by the government. They are mostly non-profit journals whose publishers are learned societies. A number of them cannot even afford an online edition. If the government has offered a tool for easy online publishing (preferably with OAI compliance), asking for OA to online edition in return, such an arrangement would probably be beneficial and acceptable to all.” Tibor Toth & Iva Melinscak Zlodi, gpgnet <http://groups.undp.org/read/messages?id=98579#98579>

In summary, there are many open access initiatives of both the “gold” or open access publishing and “green” or self-archiving varieties, springing up around the world.

Outside the U.S. / U.K., profits are unlikely for journal publishers, and a subsidy-based funding model is common. With a subsidy model, the difference between open access and subscription is that open access costs less (no subscription tracking, authentication and associated support). The Scielo collections offer substantial content. Bioline International and the Public Knowledge Project provide support and technology to assist third world publishers. The “green” or self-archiving approach is being pursued around the world, from India to the Ukraine to Canada. The author predicts that the present slow but steady growth in institutional repositories will be replaced in the near future by dramatic growth.

Desire for OA has been expressed by many individuals and groups around the world, ranging from official government representatives along with reps from the corporate community at the World Summit on the Information Society to individual authors, editors and publishers around the globe.

As a final thought: Looking back from the future, what will historians see as the truly new events of our times? Terrorism? There is nothing new about people trying to control each other through fear and terror - it’s a recurrent theme throughout human history.

From my viewpoint, what is truly new and exciting about our times is the kind of global cooperation we have seen with the mapping of the human genome. This illustrates the potential when we work together to solve common problems and advance all our knowledge together...this is the potential of Open Access.