

Going for gold, achieving 'platinum' - opportunities for libraries towards opening access to information: a perspective from Stellenbosch University

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Introduction

Libraries have always been the beacon of a learned society, but the coming of the Internet and the digital era impacted heavily on the role and status of physical libraries in academic environments. In order to stay relevant, the library therefore had to - and should continuously - re-invent itself within a dynamic and changing society. Libraries all over the world already embraced electronic journals and electronic books accessible via subscription databases and e-book platforms, often at a very high cost. Ways in which information can be accessed have changed from print to online, and along with it came the many benefits offered by conducting research online, for example exporting references via citation tools such as RefWorks™ and EndNote™, accessing research material anytime day or night, measuring the impact of research, and many more.

From the above it is clear that libraries still remain the primary facilitators to information. The problem experienced though, is that not all libraries can afford subscribing to the very expensive journals published by well established international publishers, and therefore cannot address the needs of their users. Since access to research has become such a huge problem - specifically in developing countries (costs, limited bandwidth, access to computers) - ways had to be found to provide access to research, and this is where libraries can play an important role - also in order to stay relevant. Libraries have the responsibility to facilitate access to information, but they cannot fulfill this role if information is locked behind usernames and passwords, accessible for only a privileged few that can afford access. But how can they then help researchers find solutions to current and local problems if they cannot provide the resources and access to much needed information, and how can developing countries share valuable and often unique local research with the international research community?

This paper will attempt to answer the above questions. Although open access and institutional repositories will be briefly mentioned, the focus will be on the library fulfilling the role of an open access journal publisher. Best practice will be shared, following a pilot project by Stellenbosch University Library and Information Service (Western Cape, South Africa), that will demonstrate that libraries can indeed fulfill existing access needs, as well as the need to disseminate research conducted locally, as widely possible.

Open Access and Institutional Repositories

Open Access is still quite a new phenomenon in an African and South African context, and South African publishers have not bought into the idea yet when looking at the few South African publishers listed on SHERPA RoMEO (<http://www.sherpa.ac.uk/romeo/>), which contains policies of

publishers on self-archiving within institutional repositories. Peter Suber (2004) defines Open Access literature as “digital, online, free of charge, and free of most copyright and licensing restrictions” literature. Publishers gain financially from research conducted by our researchers, and this explains why they feel threatened and do not want to commit to Open Access publishing. Some publishers offer the option to make an article openly accessible, but then the author or institution has to pay an additional fee. This resulted in establishing Open Access funds at institutions to financially support authors, such as the Stellenbosch University Library and Information Service (SU LIS) Open Access fund. Also - in most fields, scholarly journals do not pay authors, resulting very little if any of the revenue ending up in the pockets of researchers or sponsors.

The Open Access Movement traces its history at least back to the 1960s, but became much more prominent in the 1990s with the advent of the Digital Age. With the spread of the Internet and the ability to copy and distribute electronic data at no cost, the arguments for open access gained new importance (http://en.wikipedia.org/wiki/Open_Access_movement). Currently reference is made to “green” routes to Open Access, which refers to institutional repositories, and “gold” routes to Open Access, which refers to publishing in Open Access journals.

Lynch (2003) defines an institutional repository (green route) as a set of services offered to members of its community, for the management and dissemination of digital material, created by an institution and its members. The set of services include the collection, storage and preservation in digital format, and retrieval of items submitted to the repository. “It is most essentially an organisational commitment to the stewardship of these digital research materials, including long-term preservation where appropriate, as well as organization and access or distribution” (Lynch 2003). Typically a repository will provide open access to research articles, theses, dissertations, inaugural addresses, conference proceedings, conference presentations, and many more.

The alternative - publishing directly in an Open Access journal (gold route) - very much depends on the researcher and the availability of journals in that specific subject area. Currently the Directory of Open Access Journals (DOAJ) (<http://www.doaj.org/>) lists 7 032 Open Access journal titles across all disciplines.

Stellenbosch University Library and Information Service (SU LIS) - as part of the strategic directions of the University and the Library - during 2011 embarked on a pilot project to explore self-hosting of Open Access journals. This is informally referred to as the “platinum” route to open access.

Open Access Journals

Open Access journals are scholarly journals that are available online to the reader “without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself.” (Budapest Open Access Initiative, <http://www.soros.org/openaccess/read.shtml>).

Typical characteristics of an online Open Access journal would include the following: the journal is available in full text and can be accessed from the Internet without a username and password; a

unique International Standard Serial Number (ISSN) has been assigned by the ISSN International Centre (<http://www.issn.org/>); the journal and each individual article have been assigned a persistent Uniform Resource Locator (URL) which will never change; all processes involved when publishing a journal has been automated (e.g. submitting, editing, reviewing, copy editing and layout editing, utilizing an electronic workflow); the journal is hosted on a suitable platform e.g. Open Journals Systems (OJS); the author can determine rights of usage and can assign a license (e.g. a Creative Commons license) and each article has been assigned a Digital Object Identifier (DOI), registered with an independent registration agency such as CrossRef (<http://www.crossref.org/>).

Different approaches can be followed. A department or society can publish the journal on its own server, the journal can be hosted by a third party, or the journal can be hosted by for example the library at an institution, offering it as a service to end-users.

If properly managed, the benefits of hosting or publishing Open Access journals are numerous. In addition to hosting the journal, a division such as the library might also commit itself to digitally preserving the journal for years to come. Some of the benefits include:

- ▶ The results of scholarly research are made freely available online to all readers who have access to the Internet;
- ▶ Increased visibility and distribution of research results to a global audience;
- ▶ Improved access to articles by readers outside a given discipline or without access to traditional research channels;
- ▶ Fewer publication delays;
- ▶ Fewer access restrictions associated with journals run by commercial publishers;
- ▶ More secure stewardship and archiving of research results.

Although many Open Access journals are accredited by the Department of Higher Education (DoE), South Africa, and although journals published in Open Access journals also go through a proper peer review process just as a subscription journal would, misconceptions still exist amongst researchers and often it is referred to as back-door publishing. Numerous studies have however shown that this is not true - in fact - the opposite is true. Since the articles are in the open, plagiarism can be detected far easier than with subscription journals (hidden behind usernames and passwords). The content is also open for scrutiny by all, and therefore subjected to an international peer review audience which can comment on the articles published, add value, verify findings, use as a basis for future research, or use it to find solutions for local problems.

Libraries as publishers of Open Access Journals

As indicated previously, in order to publish a journal online, there are certain prerequisites. Hardware and software need to be in place, as well as the necessary expertise to host such a

service and provide long-term support. If hosted by a third party, the journal might be at risk that the service provider might not be able to provide long-term support. Therefore an academic institution such as local universities are in the best position to host journals by editors affiliated with the university in some way, or which shares the vision of the university. Conducting research is the main business of any university, and therefore universities should take a stand on how serious they are in making their research available, increase the impact of research conducted, how funders and the general community can benefit from research conducted, and how they plan to digitally preserve research for years to come.

Providing a journal hosting service can be the initiative of any division on campus, but the library is regarded as perfect for this role. Library metadata editors are comfortable working with metadata and adding value to online publications, and collection building has always been part of the role of subject librarians, with the only difference that it is now done in terms of digital material.

The library acting as a host for Open Access online journals is not a new trend. Numerous libraries internationally have taken the step and entered the territory which previously was restricted to commercial publishers. Some examples are:

- ▶ OJS @ Queen's University
- ▶ University of Pittsburgh
- ▶ University of Guelph
- ▶ University of Alberta Libraries
- ▶ Lund University
- ▶ York University Libraries
- ▶ University of North Carolina
- ▶ Harvard University
- ▶ University of British Columbia
- ▶ Simon Fraser University

Typical services that can be offered by libraries include:

- ▶ Facilitating access to information
- ▶ Hosting of journals
- ▶ Training and support re the software used
- ▶ Acquisition of an online ISSN (EISSN)

- ▶ Assigning indexing terms (metadata)
- ▶ Register with harvesters, search engines, directories
- ▶ Applying for Digital Object Identifier prefixes
- ▶ Assigning persistent URL's
- ▶ Digital preservation and content archiving
- ▶ Depositing metadata with various directories and other harvesters

The Stellenbosch University Open Access Journal Pilot Project

Deciding on a publishing platform

The Stellenbosch University Open Access Journal Pilot Project - also referred to as SUNJournals - was officially started when a workshop was presented on the 20th of April 2011, to editors of existing journals in some way affiliated with the University. Prior to this workshop SU LIS was approached by an editor from a journal in industrial engineering (in 2010), but the Library was unable to accommodate him because of a lack of expertise and capacity at the time.

The Library became more and more aware of other journals on campus with the exact need, and it was then decided to include provisioning an Open Access journal hosting service as part of the Library's strategy for 2011. Testing and implementing Open Journal Systems (OJS) was included as one of the strategic directions of the Library, following the signing of the Berlin Declaration on Open Access, and in line with the University's strategy to leave a scientific footprint in Africa, thereby broadening its knowledge base. Provisioning an Open Access journal service - in addition to an Open Access repository and the availability of an Open Access fund - was aligned with the objective of the Vice Rector (Research) (Prof Arnold van Zyl) of "supporting, developing and contributing to high-level scholarly publication output and sharing research data and results with the rest of the world, especially with researchers from the developing world via various open access initiatives".

Deciding to use OJS as the hosting/publishing platform was easy, since it is the most popular online journal system currently available, with 10 000+ journals using the software worldwide. It is also available as Open Source software, supporting the underpinning philosophy of Open Access. OJS is part of a series of products developed as part of the Public Knowledge Project (PKP). PKP is dedicated to improving the scholarly and public quality of research. It operates through a partnership among the Faculty of Education (University of British Columbia), the Simon Fraser University Library, the School of Education (Stanford University), and the Canadian Centre for Studies in Publishing (Simon Fraser University) (<http://pkp.sfu.ca/about>).

Some of the benefits offered by OJS, also available from their web page

(<http://pkp.sfu.ca/?q=ojs>) are:

- ▶ OJS is installed locally and locally controlled;
- ▶ Editors can configure requirements, sections, review process, etc.;
- ▶ Online submission and management of all content is very user-friendly;
- ▶ A subscription module with delayed open access options is available;
- ▶ Comprehensive indexing of content is part of the global system;
- ▶ Reading Tools for content, based on field and editors' choice are available;
- ▶ It offers an Email notification and commenting ability for readers;
- ▶ Complete context-sensitive online Help support can be accessed at any time.

Prior to the workshop OJS was installed on a test server, which is still available for prospective editors if they want to investigate what functionalities are offered by OJS, and to get accustomed to it. This test environment ("sandbox") will remain available, also for future training purposes.

Managing the pilot project

This pilot project was started with only one journal title, and it has grown to thirteen titles in a period of five months. What made this project such a success so far, can be summarised as the following:

- ▶ Editors were aware that it was a pilot project only, and that it was a learning curve for library staff as well. They were fully committed to travel this unknown road along with library staff.
- ▶ The workshop really only gave an overview, and the actual learning took place when the Library started hosting our first journal.
- ▶ Strong technical expertise has been the determining factor, since without the platform, there would have been no online journals.
- ▶ All activities, procedures, help pages and decisions were documented as part of a wiki - also to track progress made, and so that other Universities can learn from the SU experiences. Visit <http://www.journals.ac.za>.
- ▶ The Vice-Rector (Research), Prof Arnold van Zyl, has been very supportive, and he is also a great advocate for Open Access.
- ▶ The Information Technology department on campus played an important role, and helped secure the journals.ac.za domain name for Stellenbosch University with TENET, the Internet service provider for Higher Education Institutions in South Africa.

Roles and responsibilities

A draft Memorandum of Understanding was compiled, which still needs to be negotiated with each journal once the pilot project has come to an end. Currently the library carries the cost for hosting the journals, which is minimal. The journals have the responsibility to manage their individual journals themselves, and setup workflows and assign Editors, Reviewers, Copy-Editors and Layout Editors. They are also responsible for the look and feel of their own journals, and can co-opt graphic designers to assist with designing a custom design which can be imported.

The content of the journal and all correspondence regarding articles resides with the journal. A disclaimer is also added to the bottom of each journal, with the Library logo to brand it as a publication hosted by the SU LIS.

The Library will do the initial setup for a journal, register a DOI prefix, register an ISSN, register a URL, and provide technical support. After much discussion with the campus IT management it was decided to use virtual server technology and a unique academic domain name for the following reasons (Gibson 2011):

1. If the editorship of a journal should move to another institution then the virtual server is simply copied to a portable disk and transferred to the new institution with no change in URL. This preserves all the electronic citations.
2. With virtual servers a host can make snapshots and recover a failed system almost instantaneously. Replication to another location can be done very easily to provide redundancy.
3. Using virtual server technology one can use one large bare metal server to deliver 20 virtual servers and therefore 20 journals. This would allow the host to use a bare metal server much more efficiently.

The method of using virtual servers to install the open journal software is documented in detail on a password protected wiki web site. A service level agreement will be negotiated with central IT when all the systems are approved for production and move out of the pilot phase. The Library is also committed to provide long-term digital preservation using LOCKSS (Lots-of-Copies-Keep-Stuff-Safe).

Current status of pilot projects

South African as well as African journals are hosted, each on its individual virtual server, separate OJS installation, unique doi prefix registered with CrossRef, unique online ISSN, and unique journals.ac.za domain name. A typical domain name is for example <http://africanzoology.journals.ac.za>. Not only is it easy to remember and associate this URL with this specific journal, but it is also brief, easily citable, and friendly for marketing and citation

purposes. Nine of the thirteen journals are accredited by the Dept. of Higher Education, and therefore an institution will receive funding every time an article is published in one of these journals.

The current status of the journals is as follow:

No:	Title	Archives Status	DOI's Submitted	Online ISSN	Print ISSN	Journal Abbreviation	DOAJ	Google
1	Scientia Militaria	Uploaded	Done	ISSN 2224-0020	ISSN 1022-8136	Sci. Mil.	Done	To do
2	Per Linguam	Uploaded	Done	ISSN 2224-0012	ISSN 0259-2312	Per Ling.	Done	To do
3	ORION	Uploaded	Done	ISSN 2224-0004	ISSN 0529-191X	ORION	Done	Done
4	SPIIL	Uploaded	Done	ISSN 2223-9936	ISSN 1027-3417	Stellenbosch pap. linguist.	Done	To do
5	SPIILPlus	Uploaded	Done	ISSN 2224-3380	None	Stellenbosch pap. linguist. plus	Done	To do
6	African Zoology	Uploaded	Done	ISSN 2224-073X	ISSN 1562-7020	Afr. zool.	To do	To do
7	Lexikos	To do	To do	ISSN 2224-0039	ISSN 1684-4904	Lex	To do	To do
8	GlobalMedia Journal African Edition	Uploaded	Done	ISSN 2073-2740	None	Glob. media j.	Done	To do
9	Zambian Journal of Physiotherapy	To do	To do	To do	None	zjp	To do	To do
10	Nederduitse Gereformeerde Teologiese Tydskrif	To do	To do	To do	To do	ngtt	To do	To do
11	Akroterion	To do	To do	To do	To do	akroterion	To do	To do
12	South African Journal of Industrial Engineering	To do	To do	To do	To do	sajie	To do	To do
13	South African Journal of Library and Information Science	To do	To do	To do	To do	sajlis	To do	To do

Table 1: Current status of SU OA journals

Conclusion

An additional outcome of this project was that the SU LIS realised that a proper audit of all journals affiliated with Stellenbosch University should be conducted. The SU LIS would like to host even more journals, and the next step would be to register all journals with harvesters and directories, and monitor the impact of being open access over time. The journals will be launched during the Open Access Seminar on 27 October 2011, as part of an international event to promote and create an awareness of open access. Visit <http://oa.sun.ac.za>

Following an Open Access approach, Universities and Libraries can definitely play a role in disseminating information for the benefit of the broader research community. This pilot project has demonstrated that Libraries and Universities can indeed become publishers of open access peer reviewed journals.

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