

## Guest Editorial

# Digital Information Access in Developing Countries: Does the Future Lie with E-Journals?

For the most part, scholarly and academic knowledge has historically travelled from the developed Global North to the less developed Global South. Research obtained from the developed Global North is not always relevant to issues arising from or within Africa, so it is important to overcome the challenges in Africans obtaining access to the research published on the continent. In the past, access to scholarly, peer-reviewed African research was extremely difficult, and much of the African continent's research was largely inaccessible even between African countries [1]. The representation of African research within the indexed western publications is considered to be a mere 0.7 percent of the total [2], and this, along with the scarcity of indexing systems of African publications [3] lead to minimal African-published journal discovery.

Additional problems and challenges, over and above those already mentioned, do not aid the cause of journal publishing within Africa. The economic circumstances in many African countries result in a lack of funding or resources in higher education and research institutions, which in turn causes many journals to struggle in sustaining their publications over time. In many cases, the institutions supporting journals do not have sufficient funding to cover the costs of running a journal from year to year. This in

turn leads to the logical step taken by many titles to increase their subscription prices annually. However, this increase in cost invariably results in a decrease in the number of subscribers to that journal, as more and more individuals and even institutions, cannot afford to pay these rising subscription fees. Again in the case of institutions, libraries are struggling to obtain the adequate financial resources needed in order to subscribe to many of these journals, resulting in still further subscription cancellations, and so the cycle of lower and lower readership and accessibility continues [1]. This downward cycle needs to be broken.

The advent and increasingly widespread use of the internet, followed by the development of reliable open source (free) software have provided a channel for journal managers and publishers to begin addressing many of these problems [1] in a cost-effective way. African scholarly journal publishers are finally beginning to experience the benefits of information and communication technology (ICT) in enhancing, improving and disseminating their works both on a local and international level. It has been suggested that the future of scholarly information lies in an entirely digital system [4] causing traditional print publishers to view electronic journal system (e-journal)

evolution as intimidating. However, with the development of these e-journals, the availability and access to scholarly information has not only been increased, but the costs incurred by a journal publishing its title solely online compared to print publishing are significantly reduced. Online only publishing allows higher and wider readership. Internet connectivity within Africa is fortunately improving, thanks in part to developments such as the "SEACOM" undersea cable already in place and functioning along the east coast of Africa as well as the "EASSy" fiber optic cable, said to be available during the second quarter of 2010.

While the Digital Divide still poses a very real problem for researchers in least-developed countries, resources to improve this are already available. An example of this is African Journals OnLine (AJOL), <http://www.ajol.info>, a non-profit organization based in South Africa. This web-based initiative indexes and hosts African published scholarly journals on the internet free of charge. With over 370 titles from 27 African countries online to date, AJOL strives to increase the awareness and accessibility of African research, both to Africa and the rest of the world. By partnering in an aggregator site, the journals indexed on AJOL benefit by all being together in one, highly visible, highly used website, as opposed to having only their own (usually low visibility) website, or no online presence at all. Since its inception by INASP, <http://www.inasp.info>, (UK) in 1998, AJOL has grown from indexing only the abstracts of a mere 10 titles to become the world's largest online, full-text collection of peer-reviewed, African-published scholarly journals.

The software used to power AJOL is the Open Journal Systems (OJS) software developed by the Public Knowledge Project (PKP), <http://pkp.sfu.ca>, in Canada. OJS is a free electronic journal management system used by thousands of publishers around the world, which allows individual journals the

ability to manage their journal and publish their content completely online by tracking each step of the publication process right from the online submission of a paper through the complete peer-review process right up to the final editing and the actual publication and indexing of the article (either as a single entity or part of an issue) online [5]. Of course, production costs such as layout, copy-editing and proof-reading cannot be disregarded; however by performing the complete work-flow process online via means such as the free OJS package, the total cost is notably lower than that of print publishing. Journals that do not have sufficient means to implement their own installation of OJS, or significant problems with electricity supply, or who still don't have reliable internet connectivity, may be able, with training, to use AJOL in order to make their content available on the internet using OJS. This facility can also assist journals to improve their reliability and punctuality by saving the time previously taken by the printing and distribution processes of a print journal. The OJS system allows researchers to search for and download full-text Portable Document Format (PDF) files from the website, making the research accessible to anyone, no matter where they may be located on the globe. OJS can be used for both Open Access and subscription model journals.

Adaptations such as these, while beneficial and invaluable to the African research community, cannot stand alone. It is critical that the journal staff to be aware of their journal's progress as well as monitoring its sustainability for the future. Editors need to have an understanding of their journal's 'reader profiles' and accommodate them accordingly. In addition to this, journals may want to look at their current publishing model and determine its efficacy in reaching its readers, and its sustainability both at present and into the long term future. Due to the massive potential increase in readership and submissions associated with it, some journals are adopting an Open Access (OA)

publication model. Open Access journals are available online, in the form of an 'e-journal' and articles are freely available to all to download. Others may choose a 'Dual Mode' of publication, where their electronic version is available on the internet for free download, i.e. Open Access, yet they continue to sell print versions to those subscribers who prefer or need to have hard copies. Yet another model is to have 'delayed-OA' where a journal's publications will initially be published as subscription content but become OA after a certain period of time (for example, two years after publication, the full text becomes free online).

Ultimately, it is the journal staff or editorial board's responsibility to draw up a business plan for their journal's publication model that ensures the sustainability of the publication for the future. Some revenue channels to be considered for an Open Access model business plan include author-side publication fees, additional sponsorship and funding (either from an outside source or the institution managing the journal) and advertising within the journal or on its web pages. In the resources section of the AJOL website, some links to business plan templates are provided to assist journals with this process.

Given the current trends in information dissemination and data storage and the increased use of information technology globally by researchers, academics and 'the person on the street', African published scholarly journals need to seriously consider online publishing as a means of disseminating their journal's content to wider audiences

on the continent and internationally, as well adopting either Open Access or a Dual Mode of publication. Given the increased access to research for all involved, online publishing can only benefit the academic community, both within Africa and the rest of the globe, in the exchange of quality scholarly information.

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