

**EMBRACING ELECTRONIC SCHOLARLY PUBLISHING IN AFRICA ; THE
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
(KNUST) LIBRARY, KUMASI, GHANA AS A CASE STUDY.**

by

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ABSTRACT

Existing types of scholarly communication/publishing worldwide and specifically in Africa is presented to set the tone for the discussion. The emerging types of scholarly publishing is now mostly in electronic format and is rapidly being embraced globally. The need for Africa to accept electronic scholarly publishing along with its merits and demerits is therefore discussed.

Libraries are gradually being introduced into the publishing world as publishers of scholarly communication. The participation of African libraries as publishers of scholarly electronic journals and other scholarly communications is therefore discussed using the KNUST Library as the focus. Its expected benefits and challenges are also discussed.

The PKP software, Open Journals System (OJS) which is making an important inroad in advancing scholarship in Africa is already being used by INASP to manage over 260 journals in Africa and therefore is familiar to African libraries. The IDRC/PKP sponsored workshop in Ghana has exposed Ghanaian Librarians, Researchers, Faculty, IT administrators and Post Graduate students to the relevance of OJS. The paper therefore examines the usefulness and suitability of this online technology for scholarly journal publishing and other information accessibility functions of libraries in Africa.

The paper concludes with recommendations, some of which were outcomes of the workshop to the effect that the Open Journals System is appropriate for use in emerging electronic scholarly journal publishing and also for other information access functions of the KNUST Library and by extension ,other African Libraries

INTRODUCTION:

Scholarly communication has been the format that new information, gathered by means of research or in-depth study, is disseminated for the development of society including the African society. This type of communication in years gone came to the public either orally or through the printed media. The printed media has presented and still presents information through periodicals, magazines, journals and books. These primary information are presented through either peer reviewed or refereed journals or conference papers.

Scholarly communication is also scholarly publishing. Access to scientific and technical information has brought about the development of high quality teaching and research.

Today, electronic publishing or online publishing or web publishing is competing seriously with print publishing taking over in some places, and in its stride introducing measures to make dissemination of information more efficient.

Rohe says that “electronic publishing is changing the pattern of scholarly information. Scholars are rightfully excited by the offer of unprecedented speed of publication and the possibility of going directly from a subject index reference or a footnote to the source material, yet many questions have not been resolved, and more arise as the technology develops.”¹

Electronic publishing includes digital publication of books and articles and the development of digital libraries. It is also being used now in scientific publishing for peer-reviewed papers. Broadly, electronic publishing is used to refer to what can be found published online including the new forms of production and distribution of information.

In recent times, electronic publishing has been making inroads into Africa. This is because the wind of ICT revolution which has brought about new outlooks for publishing, documentation, storage and retrieval of scientific and technical information in other parts of the world has also blown onto the continent.

MERITS AND DEMERITS OF ELECTRONIC SCHOLARLY PUBLISHING IN AFRICA

Electronic publishing has been widely accepted in the developed world. The developing world including Africa is now trying to accept it to reap its benefits.

Electronic publishing has its merits and demerits, however the merits outweigh the demerits.²

Some of the demerits of electronic publishing are:

- A lack of standardisation among publishers.
- Users rarely know that most journals are still published in print and only a small percentage of them are solely online.
- Only a few online journals have their back issues online.
- They are unstable in the publishing market and their Uniform Resource Locators (URL) change frequently and servers may crash.
- Lack of a permanent archive, which means that one may not have titles of all past years as in print journals.
- Some institutions do not accept e-journal articles for promotion decisions.

Some merits of electronic publishing are:

- They provide users with online access to various journals
- Ease and speed of use to a great amount of information sources just at the touch of a few keys.
- Can be accessed by multiple users at the same time, any time, any day.
- They have embedded links that add value to the journal article.
- Can make some articles available even before the complete issue comes out.
- Saves shelf space and labour cost in libraries
- Can include sound, video and other multi-media options which print does not have.

These merits and demerits have strong relationship with the functions of libraries so it is logical that libraries get into the publishing world as publishers of scholarly communication to make their goals complete.

LIBRARIES AS ELECTRONIC PUBLISHERS

At a conference organised by CODESRIA in 2004³ it was noted that Africa consumes scientific knowledge produced elsewhere by others. However university libraries and documentation centres, who had been performing functions of identification, acquisition, processing, storing, dissemination and validation of information must now play a key role in the online production of scientific information, by creating electronic scientific

journals and setting up open access archives for scientific articles, digitising and putting online academic works³.

Africa produces a lot of scholarly journals most of which are in print. African academia also produce research reports, technical reports and other scholarly communication that are also in print. It is necessary for African Institutions to provide access to knowledge created else where in the world, but more important for Africa to create knowledge within the continent to be used to transform our societies and also to be shared elsewhere in the world³. This desire makes it imperative that an avenue is created to disseminate such created knowledge. The onus falls on libraries which are the age long conduits for information acquisition, repackaging where necessary, and eventual dissemination.

THE KNUST LIBRARY AS A PUBLISHER

The KNUST Library systems consist of a Main Library and 6 Colleges Libraries. Together its stock is about 320,000 volumes. It subscribes to about 500 print journals and e-journals from some commercial electronic databases and has access to some free ones which altogether makes available about 19,000 electronic journal titles to its about 22,000 student population and about 650 faculty and researchers.

The staff of the Library have been exposed to several training programmes in making different electronic resources available to users. Recently some of them have been trained on setting up an Institutional Repository (IR) and plans are in motion to set up an IR for the KNUST with the server located in the Main Library. The establishment of the IR, it is believed is the pad that will launch the Library into the publishing of scholarly communication.

The Library has seriously considered the merits and demerits of electronic scholarly publishing and concluded that since the merits are more than the demerits, it is going to take the plunge into scholarly publishing. It was therefore a welcome development when the PKP software, Open Journal Systems (OJS) was introduced to librarians, researchers,

journal editors, potential journal editors, post graduate students, IT administrators, at a workshop held in Kumasi from 23rd to 24th November 2006. The workshop has strengthened the Library's resolve to go into electronic scholarly publishing because of what its staff were exposed to.

The KNUST Library sees the benefits of getting involved in electronic scholarly publishing as follows:

- Wide dissemination of research information, as many users can have access to the same material at the same time from several work stations world wide.
- Speed, removal of distance and timeliness are provided for information seekers in e-publishing.
- Faculty and researchers will have easy connections to colleagues world wide.
- Access to links to additional data and images that enhance the article.
- More accurate usage statistics can be compiled
- Institutions will not need to pay for access to what they have produced.
- The exposure of the university as serious minded and research oriented.
- Good method for detecting plagiarism

It also has considered several issues which fall into three main categories: technical, social & cultural, and economic⁴ in its desire to publish electronically.

- Technical – the tools to use, which type to use, the standard (HTML, SQML or acrobat PDF) and the most useful browsers to use.
- Social and Cultural – the reaction of scholars who have computer-phobia to e-journals; will articles in e-journals be given the same weight as those in print format? will e-journal articles be given the same 'respect' as those in print format?; what will be the response of intellectual property rights and laws to this venture?
- Economic – may be necessary to reduce the cost of subscribing to e-journals from commercial publishers.

A well equipped workstation supported by the staff of a university library can house many different journals⁵. This is what the KNUST Library hopes to do. The KNUST Library intends to feature, research reports, technical reports, theses, conference papers, articles in journals and any other scholarly communication of its staff in the IR. It will in addition publish articles, peer-reviewed or refereed online. This will be in addition to the University's Journal, Journal of the University of Science and Technology (JUST) which is already one of the journals being featured in African Journals Online (AJOL) which interesting is being managed with OJS.

There are some critical decisions that the KNUST Library still needs to make, if publishing journals, even after its decision to enter the arena of electronic publishing.⁶

Some are as follows:

- If the articles are to be refereed or not and what the effect of the option taken will have on the journal.
- If the journal will for a start be only electronic or electronic and print.
- Where the copyright will be placed, in the Library or with the authors, what restrictions will be placed and what will constitute fair use.
- The amount of information to be made available to a subscriber, if it will be the entire issue of the journal or specific papers and how timely the information will be made available.
- The role expected from the author when submitting a paper for e-publishing, if it will be the same as for print publishing.
- The type of reading software to be used, if HTML, SGML, or ACROBAT PDF.
- How costs will be covered, if services of reviewers, editors and authors will be free or paid for.

The KNUST Library is currently considering these decisions and as Rohe⁷ rightly says, "many questions have not been resolved and more arise with the constant development of technology... but conditions are ripe for scholars to take control of scholarly publishing

and librarians are confident in their abilities as information managers to lead the way as researchers take advantage of the new possibilities in the publication of scholarly research”.

THE PUBLIC KNOWLEDGE PROJECT (PKP) SOFTWARE

The Software was introduced to selected persons in the electronic publishing chain – Librarians, Editors, Researchers, and IT personnel - at a 2-day Workshop from 23rd to 24th November 2006 held at the KNUST, Kumasi, Ghana . Participants were drawn from the KNUST as well as other universities and research institutes in the northern sector of Ghana. The software has also been introduced in some other African countries – Nigeria, Kenya, South Africa and Uganda.

My analysis, in addition to information offered by the Ghanaian participants through interactions and also from colleagues contacted in some of the African countries where the OJS has been introduced, portrays the software as one that is very user-friendly. Its processes follow logically and have a lot of in-built guides which are easily understandable. Although participants at the workshop did not have complete hands-on session during the workshops, persons who later downloaded it and tried to work with it have found that it can be used for several scholarly publishing including institutional repositories. It again features all the key tasks necessary for the publication of a journal, inter-relating these tasks and makes provision for cross-check other functions in the chain. It is also attractive to users because it is free and open source. It is also not filled with technical jargon that will scarce non-IT personnel.

RECOMMENDATIONS

The PKP Software has been found suitable for use in scholarly publishing in Ghana and by extension Africa. In line with this some main recommendations relating to the success of its use are made here.

- The software manufacturers will need to link up with the Government so that it can be approved at that level for institutions to use it. Interestingly, all the target groups for the use of OJS now have a single supervisory Ministry – Ministry of Education, Science and Sports - which will make such a bid less complicated.
- It is necessary to have a CD-ROM version of the software so that institutions with no regular internet access or slow bandwidth can use it.
- Users will be pleased to receive regular updates of the software which will take into consideration the developments and changes in the field.
- It is important that full training is given on the use of OJS after it had been installed, including training on how to update it, migrate data onto it and to submit onto it.
- It will be necessary to train a core of technical IT staff in each country to trouble shoot for the software.
- There must be an in built system in the software which can automatically save data being entered since there are a lot of unannounced electricity supply cuts in our environment. This is to avoid loss of data and repetition of work.
- Where necessary, OJS developers should assist in sourcing equipment support for institutions willing to use the software but having problems in providing the basic equipment for it.
- It is important to do more Public Relations work, that the OJS is a software which will stand the test of time, since people do not believe that a software that is robust and has several features and is also free, will last long.

CONCLUSION

The fear usually expressed by would be clients about getting hooked to a new and good software is that more often than not, they make a flashing entry, make an impact, capture clients and suddenly disappear from the scene soon after. This is the worry of persons interested in using OJS that they think that its existence and functions are too good to be true. It is therefore necessary for more assurances to be given that OJS will not die but rather see improvements.

Electronic publishing of scholarly information has come to stay. OJS is a suitable software for it. Efforts should therefore be made to ensure that it competes favourably with other such software since it already has a head start in its use in AJOL, which is very familiar with publishers and consumers of e-journals in Africa. Its use in AJOL is what convinces KNUST Library that it is worthy to be considered for use, since AJOL is a serious minded set up which makes African Scientific information available to the whole world.

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