

INTERNATIONAL SYMPOSIUM ON OPEN ACCESS AND THE PUBLIC DOMAIN IN DIGITAL DATA AND INFORMATION FOR SCIENCE - 10-11 MARCH, 2003, UNESCO HEADQUARTERS, PARIS

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PUBLIC KNOWLEDGE PROJECT (PKP) OPEN JOURNAL SYSTEM

Introduction

The presentation focuses on the activities of the Public Knowledge Project (PKP) with a particular focus on developing country applications and issues. The PKP is a federally funded research venture at the University of British Columbia, Canada (<http://pkp.ubc.ca><<http://pkp.ubc.ca/>>). The project's driving force is the fact that knowledge should be free; hence, the need to promote a world where knowledge is free. Over the last four years, the project has been involved in research on ways to improve the scholarly and public quality of academic research through the use of online technologies. We have been gathering data on the impact of open access publishing in Cameroon and S. Africa, and lately this year) in Kenya, as well as among policymakers and professionals in Canada (<http://pkp.ubc.ca/publications/>).

In addition to doing political, economic, legal, and social analysis of open access publishing issues, the PKP has just completed an open source software system, Open Journal System (OJS) for managing and publishing e-journals that has been designed to be installed and run locally by journal editors with minimal technical skills and technology access (<http://pkp.ubc.ca/ojs/>). OJS will support open access peer-reviewed publishing with international collaboration among editors; it offers precise metadata indexing of published materials on a global scale through the use of Open Archives Initiative standards (<http://pkp.ubc.ca/harvester/>). This free system is intended to reduce the cost and raise the quality of publishing, in ways that make open access publishing a realistic alternative to the traditional model. OJS also includes tools that support greater public and professional use of published research (<http://pkp.ubc.ca/demos/rsttour/>).

OJS AND RESEARCH CAPACITY DEVELOPMENT: CASE OF KENYA

The discussion is guided by a research project being carried out in Kenya on possibilities of using new publishing technologies to enhance research capacity development through publishing and sharing of information related to research findings in public sector, and in particular the university and government departments. It is attempting to establish the prospects of greater participation in the international network for the creation and distribution of knowledge by exploring the prospects and processes, issues and hopes,

involved in initiating an online scholarly journal. In particular, the research concerns itself with investigating the role of online journal publishing in research capacity development in African universities, with particular reference to Kenya. Specifically, the ongoing research project is investigating whether the OJS, an open access journal system developed by the University of British Columbia, Canada, can be used to boost research capacity through sharing of knowledge/information, local and international. The ongoing study is guided by the following specific objectives:

- ❑ To establish from the perspective of the scholarly community - teaching staff, students, librarians and policymakers- the potential for electronic journals to contribute to both information exchange and research capacity development.
- ❑ To explore the feasibility, technically and economically, of supporting electronic journals that can contribute to knowledge circulation/sharing among scholars and other stakeholders.
- ❑ To find out whether such an electronic journal can facilitate local knowledge creation within a global exchange of knowledge, as well as foster networking among peers.

The hypothesis behind the research is that from a technical, economic, social, and intellectual perspective, new publishing technologies can provide a means of improving Kenya's research capacity by contributing to local knowledge development, as well as a larger global exchange of knowledge.

The expected outcome of the research project is:

- ❑ An informed analysis of the challenges, possibilities and obstacles to be overcome in pursuing online scholarly publishing in African universities as a means of improving the universities' research capacities and providing greater participation in global knowledge systems. This analysis will serve as a guide for establishing new online journals in different fields, as well as for building better publishing software.
- ❑ An informed and active body of scholarly researchers, actively participating in knowledge creation, sharing and dissemination, and professional debates/discussions in the relevant fields of knowledge.
- ❑ Improved networking among faculty, professionals and policymakers with the focus on scholarly and local works in education.
- ❑ Greater global visibility for African scholarly publishing, and particularly Kenyan knowledge products and scholarly contributions. It is hoped the e-journal will give the stakeholders the means and voice to be heard.

I Attempts made in publishing online in Kenya so far

Though the research is at the initial stage, the findings are quite encouraging. So far a baseline survey has been done to find out whether there has been attempts to apply the new technologies in publishing and sharing research findings in order to establish the challenges and successes met, and also establish possibilities of networking with a view to mapping the way forward. It has been found that there are organizations in Kenya involved in online journal publishing. Currently, there are several journals (about 5), which are publishing online with the help of Bioline in Toronto, Canada, and Brazil. Their field of specialization is mainly sciences - Biotechnology, Medicine, Insect Science, Food Technology and Nutrition. What the host organizations do is to receive

manuscripts from authors (hard and electronic formats), edit them and organize them for peer review. After corrections are done, the editors of the various journals then send them to the Bioline Headquarters at the University of Toronto, who in turn put the issues on the Bioline website (<http://www.bioline.org.br>). Here, the abstracts can be accessed freely but to access full articles one must subscribe.

African journal on Food, Agriculture, Nutrition and Development (AJFAND), initially known as African Journal of Food and Nutritional Sciences, AJFNS, is another example from Kenya that has struggled to publish in both print and online with the support of well-wishers and friends. It was established so as to provide a platform through which issues and scientific information concerning Africa, and its unique problems could be effectively addressed and shared. It was established largely as a capacity building initiative. Professionals in nutrition, agriculture and development, who were native to or living in Africa, as well as non-Africans with an interest in Africa, would have an opportunity to come up with practical as well as sustainable solutions to the continent's problems. It would also encourage adoption of the writing culture among budding professionals in the said fields. The reason behind the change of title is that there are two other journals sharing the same title; secondly, they wanted a title that would reflect their main goal, which is linking research to development. It is peer-reviewed and has an editorial board and a secretariat comprising students who have just graduated from the university in the area of food science and technology. It has its own website (www.ajfand.net). It publishes full articles in English and abstracts in both English and French. Access to full articles and abstracts is free. For translations into French, the journal relies on friends.

(a) Success story from journals that have gone online:

- ❑ Visibility for the journals, their authors, research findings/discussions. They feel the online journals have given them a voice to be heard outside their borders
- ❑ Wider readership and exposure to more sources of information through the websites links
- ❑ Has encouraged partnerships and collaboration among authors in related fields locally and internationally
- ❑ Works can now be published and accessed faster than before

(b) Challenges experienced:

- ❑ Funding, especially for printing costs is a big problem. Some journal editors interviewed said they saw no hope of surviving if alternative funding sources were not found
- ❑ Distribution is another problem, for mailing costs are quite high
- ❑ Sluggishness on the part of some editors and their assistants, and reviewers for lack of incentive leading to delays- editorial and reviewing jobs are free/voluntary in all journals visited
- ❑ Lack of training for some reviewers especially on scientific writing and research methodology. This at times leads to shoddy job
- ❑ Poor means of communication; hence, inaccessibility to technology. This means those in the rural areas and small urban areas in Kenya (and these are the

majority) cannot enjoy the benefits of online publishing systems directly. This, therefore, means less readership of the journals if print copies are not availed

- Lack of awareness of the new publishing technologies and the way they work. This makes many not to appreciate them and their revolutionalising potential. In fact, some see them as a threat to their means of survival

(c) Coping mechanisms:

- Funding: Most journals rely on the proceedings from the subscriptions and advertisements for their running costs. A few rely on the goodwill of friends, well-wishers and donations
- Inaccessibility to technology: Most of the journals depend on the sponsoring organizations to publish online. Their activities are also centred within the capital city, Nairobi, where communication is not a big issue. All organizations visited produce both print and online copies to ensure the technologically disadvantaged also get journal issues
- Editorial and reviewing challenges: They rely on the efforts and connectedness of their editors-in-chief and goodwill of their editorial boards to go over the huddles
- Training: Some are organizing in-house trainings to coach the inexperienced editor/sub-editors
- Awareness creation: Seminars/workshops on open access journal publishing are being done with assistance from donors to expose stakeholders to the new technology

II The situation at the universities: Case of Kenyatta University

A visit to the university to observe and interview academic staff and librarians in as far as developments in new technologies and library resources are concerned revealed the following:

(a) The state of ICTs:

It was found that the university has made great strides in embracing the new technologies and use of ICTs is on the increase:

- The university has constituted an ICT board under the Deputy Vice-chancellor to oversee implementation of ICT policies at the university. The library is a member of the board.
- The university has been the hone of many ICT-related donor projects which have boosted its ICT base, e.g. the World Bank's African Virtual University (AVU), Institute of Continuing Education through distance learning, electronic Supply of Academic Publications (eSAP) project
- The university is also the depository of World Bank publications, both print and electronic
- The university also has many internet cafes from where staff and students can access all the information they need
- The library is being automated and computers have been purchased to facilitate the process. Currently, the library is doing retrospective conversion of the catalogue. It also has a few computers connected to the Internet where postgraduate students and staff have unlimited access.

(b) The journals situation:

It was established that:

- The university publishes a few journals (about 3) in print, viz. *East African Journal of Science: An International Journal of Pure and Applied Science*; *Chemchemi: International Journal of the School of Humanities* and the *Kiswahili Journal* which is on and off (published sporadically). The reason for this was the economic crisis where no serious work is given to journal publishing, which is seen as demanding and less rewarding. Hence, academic staff would rather engage in writing school textbooks that fetch them better money to earn a living.
- Journal subscription went down since 1980's due to reduced budget. The acquisition librarian said at times the budget would not purchase even 5 journals altogether. She also felt that equipping the library to facilitate it to play its central role as the heart of research capacity development has not been given a priority. However, it was noted that there is slight improvement this financial year where budget allocation for journals has gone up to Ksh. 1.1 million (about US \$ 14 281). But with the said improvement, the library can only subscribe the core journals - at times only 1 per department. The limited budget makes the university buy journals in single copies through an agent.
- Other journals acquired through donations though donations have fizzled over the years. For example, most African journals were acquired through the INASP's African Journal Programme that has stopped in the last two years.

(c) Online resources:

The university library's focus is to expand the electronic/online resources.

The following was observed about online resources:

- Library has internet connectivity with postgraduate students and academic staff enjoying unlimited access
- It has access to electronic/online journals (close to 8000), bibliographic databases with abstracts, for example, Dissertation, Psychlit (Psychology), TEEAL (Environment and Agriculture), POPLINE (Population), EBSCO, Humanities Index, Education Index, Medline and Elite databases. Most of these are available mainly in CD-ROM.
- The library offers online publications by INASP/PERI, for example, EBSCO online, Blackwell Synergy, AJOL, IDEAL library
- Existence of electronic books (mainly World Bank publications)
- A new project by INASP/PERI - eSAP (electronic Supply of Academic Publications) - has been a saviour in as far as acquisition of electronic/online publications is concerned. Up to last year when Kenya's foreign aid and donations were withheld, eSAP paid for the licenses of the databases. The project is mandated to:
 1. Carry out training of staff - representatives from the library, various departments and a coordinator in Internet, publishing and web design
 2. Facilitate electronic publishing for resources from the university and have started with Business and Development Studies.

The project is still at infancy stage with no editorial board as yet. Initially, the software was to be installed at Kenyatta University but due to infrastructural (communication mainly) problems, inadequate articles to publish in the targeted disciplines, editing and reviewing problems, they shifted the base to the Netherlands.

Donors funding the Kenyatta University's electronic/online journal initiative include the World Bank, PERI/INASP, The Rockefeller Foundation/ Cornell University in US (the TEEAL databases).

(d) Challenges faced in building research capacity through online publishing:

- ❑ Inadequate exposure and training in computer applications, and especially the Internet, even among the library and academic staff
- ❑ Infrastructural - equipment (computers and their accessories are few), furniture, communication (reliable telephone connection)
- ❑ Technical support staff
- ❑ Lack of morale by likely authors owing to the low salaries paid against ever rising cost of living. The dilemma is: devote time to research/writing or to looking for means of survival?
- ❑ Editing and reviewing: Lack of budget for these is demotivating to many would be editors and reviewers.
- ❑ Sustainability of the resources after the donor has left

III Recommendations regarding online journal publishing

- ❑ There is need for awareness creation regarding Online Journal Systems and their long term benefits
- ❑ Need for capacity-building for would-be editors and reviewers especially in scientific writing and research methodology, even at the university level; technical staff and library staff
- ❑ Avail budget for purchase and maintenance of equipment, and especially computers and communication gadgets
- ❑ There is urgent need to look for ways of motivating authors, editors and reviewers, for instance, training, experience-sharing workshops, get-together dinners or lunches even if once a year.

*Report by Florence N.N. Muinde - Kenya, East Africa
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