

Meeting The Challenges Of A Changing Information Landscape: Experiences From Kwame Nkrumah University Of Science and Technology Library

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Abstract

The internet continues to support the generation and distribution of information and knowledge. This paper takes a look at how the web technologies have been used by Kwame Nkrumah University of Science and Technology library - Kumasi, to proactively interact with its students and faculty in order to provide efficient and reliable information and knowledge sources. Suggestions have also been given on which other areas could be included to further enhance the services provided by the library to be operated more on the technological edge to meet the changing demands from its parent institution.

Introduction

The internet continues to support the generation and distribution of information and knowledge. The collection, processing, storage, repackaging and dissemination of such information and knowledge to the community of users continue to meet with challenges as the form and format of the medium storing the information continue to change. Information and knowledge is no longer available only in the form of books but in diverse forms as CD-ROMs, tapes, DVDs, web pages, databases (both CD ROM and Online), information gateways and so on (Lynch and Smith 2001). Information seekers today are sophisticated and prone to use one or more of the electronic means of getting information than to resort to the use of books for example, most information seekers will rather Google a question than consult a textbook. Librarians and Information providers in their mandate to better serve the variety of users and their multivariate needs, have to now redefine the information sources they use and how to serve their clients having in mind the changing landscape in information sources and their medium of storage. (Gibson and Dixon, 2011).

Over the years, academic libraries have been undergoing transformation in the areas of service provision to meet the real needs of the clients. According to Dowler (1997), “the use of libraries have moved from interpreting canonical text to scholarship for the sake of erudition and toward examining the context or frame of reference within which a text or activity may be understood”. The library should not only be seen to be connecting the user to the information sources but also to be helping the user connect the pieces of information together and having the ability to synthesize that information.

Campbell (2006) opine that “as digital technology has pervaded every aspect of the civilization, it has set forth a revolution not only in how organizations store and transmit recorded knowledge, historical records, and a host of other kinds of communication but also in how users seek and gain access to these materials”. The academic library has to contend with all this and librarians now work as information managers. Not only are they to



collect and preserve knowledge, but they are also to repackage the information and make it available to their clientele in a format that meets the user's requirement. Libraries thus have to help their staff move from being collection centric to user centered so as to improve the way they can be useful to their clients.

Students and faculty are now increasingly resorting to the use of the internet to locate the information they need. The library is now mostly used as a place for reading notes or studying and not for consulting the resources located in them. Dowler (1997) paints a picture of the modern user in this description of his work as a lecturer

"I hardly go to the library but the library resources at Harvard are among my major resources for my work as a teacher and researcher. I access them sitting home or in the office, connected by modem, at all hours of the day or night. ...The real books can be delivered to me and returned by my research assistant: what I need when I am deciding on what to read, is the virtual trace of the book in the database."

The above description aptly shows the way the internet has affected the library building as an icon in the academic circle.

This paper takes a look at how the web technologies have been used by Kwame Nkrumah University of Science and Technology library to proactively interact with its students and faculty in order to provide efficient and reliable information and knowledge sources.

Knust in Transit

The Kwame Nkrumah University of Science and Technology, is mandated by its mission statement to produce human resources of high caliber for national development. As part of meeting this mandate, the university has made strenuous efforts to provide the necessary resources to facilitate this mission. Among them has been the provision of Laboratories and Libraries. The Library System is comprised of the Central library supported by 6 College Libraries. The KNUST library has had to struggle with the cuts in budgetary allocations for some time now, a phenomenon well known to academic libraries the world over. This phenomenon has been well documented by many authors. The results have been a reduction in the number of items the library could purchase.

Thus in the 2008/2009 academic year, the total stock added was 1,543 books. Out of this 687 were donations (mostly from the UN and its affiliates like FAO, WHO, UNESCO, ILO, etc), 48 legal deposits, 464 graduate theses and only 344 direct purchases. Contrast this with student population of over 26,000 and a regular teaching staff of over 2,000, and one can see the inadequacy of the addition. From 2000 the new University Librarian upon assumption of office set out to shift the library services from in house to the door step of the users. In achieving this target these steps were initiated.

a) Electronic resource subscription

There was a move toward subscribing to more electronic journals and databases than going for the hard copy journals. Negotiations with publishers and organizations have steadily increased the number of online journals and databases available at the university. The 2009/2010 Vice Chancellor's report indicates that the library subscribed to 223 hard copy journals. Of these, 203 were subscribed at reduced rates, under the ACU's Protecting the African Library Scheme. The library could only afford to subscribe to 20 locally published journals. On the other hand the library by joining the Consortium of Academic and Research Libraries in Ghana (CARLIGH), had access to over 21,000 electronic scholarly journals and 40 databases. This move has been of

tremendous help to the library since these sources are online and therefore available to both students and faculty.

The library did not stop at just providing the sources. An Electronic Information Services Department (EISD) was created to manage this huge source of information. The EISD has organized numerous workshops to introduce these resources to faculty and students and has tailored these workshops to meet the different objectives of each College. The workshops have been used to also teach information literacy so that those not seeking to use these electronic resources but opting for the open web resources have knowledge on how to perform searches using proper searching procedures and to evaluate the results they get. Types of sources available on the internet like gateways, directories and databases and how to use each of these are also taught during such seminars.

The EISD has a help desk where users seeking to use the resources but have difficulty doing so can request for assistance. Others who have very limited time on their hands to search for information are also encouraged to leave their request by filling a request form and stating the keywords/search terms, along with their topic of research. The results gotten by the help desk is sent via electronic mail to the information seeker. This service has proven to be very helpful and in reality, is now oversubscribed.

b) *Institutional Repositories*

Another landmark in the service delivery of the library is the setting up of an institutional repository (IR). The repository which is known as the KNUSTSpace is set to showcase the intellectual output from the university community. But it has also brought the library closer to the users especially faculty. This has been through the avenue the repository has created for them to publish or publicize the findings of their research. According to Lynch (2003), the repository allows them to become visible to the global research community since the repository is searched by the popular search engines like Google, Exalead, Yahoo! and others. Thus they receive more impact than they will normally have done if they had published the work in a paper based journal alone. Again, the internet is used to facilitate the submission of their articles and they do not need to visit the library. But beyond that, the library offers for free the conversion to digital forms for inclusion unto the platform articles that are paper-based. Post graduate students have been provided with a web link for submission of their final work so that the work goes online immediately.

c) *Web Technologies (VoIP/Skype/Yahoo! Messenger)*

These online social networking tools have been introduced to also make the services more available and accessible to the users. This facility allows faculty and the students especially, to contact either their college librarian or the central library for information which is provided in real short time interval. If the college librarian is not able to provide the needed sources, the main library is only a VoIP (Voice over Internet Protocol) or skype call away to provide the needed help. The faculty has been increasingly encouraged to contact the library in situations where they cannot find what information they need from the online resources. In such instances the library tends to seek the information from other members of the Consortium of Academic and Research Libraries in Ghana (CARLIGH).

d) *Library Automation*

Another area the library has made strides is the conversion of its catalogue to online. Although the conversion is ongoing, it is now available to users. The card catalogue on which the library has previously depended has been of little use since entries into it did not go beyond the early nineties. Users were therefore not getting the books which were added to stock beyond

2000. In 2009, the library set up a taskforce and re-catalogued and re-labeled the entire stock and transferred the data onto a new platform that created an online catalogue. The retrospective cataloguing and relabeling of the entire library stock has since been completed and the creation of the Open Access Catalogue (OPAC) is ongoing. So far, one hundred and twenty-five records have been entered into the database. The Library management software (LMS) used, which is called the Alexandria (version 6.0.3.0 by Companion Corporation in America), allows the user to see how many copies of a book are available for borrowing, and if borrowed when it is to be returned so that a user can place a reservation notice online for it without actually visiting the library premises. It has bulletin boards that help alert users of new additions to the collections. This has eliminated unnecessary trips to the library since a user can verify the presence or otherwise of an item and place a hold on it before setting off to pick the item from the library. Once a hold is placed on an item the platform prevents another user from borrowing it within 24 hours for faculty, and within two hours for students, thereby making it possible for the person who placed the hold to still have the item waiting for him at the issue desk. The six colleges are also on the LMS and have all their records available to faculty and students. Faculty can thus search and know what sources are available by referring students to a particular source. The idea of automated circulation services alone has urged some users to register with the library so they can also experience the new system.

Services Beyond The Traditional Services

The KNUST library continues to make itself more useful to the university. It has packaged and is seeking approval to run an information literacy skill course module for all freshmen (undergraduates and postgraduates), so that they can become life-long learners and researchers. In the interim, it is engaging the faculty and postgraduate students in seminars and workshops imparting such knowledge about topics like fundamentals of technical writing, writing research papers, rules of citation, the use of social networking tools, for example, Google docs, weblogs, wikis, for online collaboration in carrying out research work. Training has even been provided on Bandwidth Management and Optimization for all the colleges, so that the meager bandwidth available to the University is properly utilized in the direction of the institutions objectives.

The KNUST Library has continued to maintain a proactive stance even as the budgetary support for its operations continues to dwindle. The KNUST library is focused on making more impact with the resources already available to it. The library has created discussion areas where students are welcome to sit and discuss their assignments and other course related matters. In these discussion areas, students who have laptops can also access the Internet service and make use of the online resources without any cost.

Prospects Yet Untapped

a. Audio visual and multimedia collections

Aside all the above proactive services rendered by the library, there are yet other areas in vogue now that could help the library make more impact on the institution's community. There has not been the active integration of audio visual and multimedia formats of information into the collection. You tube, for instance has a lot of video for free that could be downloaded and stored in the library, and playback equipment made available to users. For example, how beneficial will an animated video of a working engine in a 4-cycle engine be to a mechanical engineering student as compared to being taught the theory alone? or an animation of the blood

circulation help a medical student as opposed to just studying it from a textbook? or even the dynamics in an air tunnel in studying the performance of airplane wings for an aerospace engineering student? There are many such videos present on the internet now that make studies practical and easy to understand, which the KNUST library could download and add to its databases and make available to their users. This is more essential considering the impact such individual downloads could have on the institutional bandwidth which are small for developing countries like Ghana.

b. Online help desk

Another area yet to be tapped is the creation of a virtual reference desk with some staff available during all working hours to respond to the needs of users who are online. This service could provide ready answers for information sources or directional (i.e. point users to the right source of the information they are seeking) answers. This service will allow users to save themselves the problem of having to go through information sources that will waste their time in seeking information online. This service point could also have a VoIP and facsimile to make the service more engaging and interactive.

c. Services for the visually impaired

The library could further be taking its services abroad if they could also take a look at reaching users who have visual impairment. The Acrobat reader has a “read aloud” function. The Microsoft office suite has a plugin that allows users to save as portable document file (pdf) straight away, work done in Microsoft word. Thus documents, notes, research and reports that are born digital and in which copies are submitted to the library can be converted to portable document format so that a visually impaired student can then use the Acrobat reader to read it aloud while he or she listens. They could even record such playback and listen to it as he/she moves around. The library should in making this service available, make provision for computers and headsets for the students to use. Quiet rooms should also be provided for the use of such a facility.

Conclusion

Numerous creative and useful services have been offered within by the KNUST library to its community members: offering virtual reference services; offering Selective Dissemination of Information (SDI) /searching services; teaching information literacy and collecting and digitizing paper based research materials and putting them on the online repository to improve access; maintaining digital repositories, providing quality learning spaces; creating metadata; choosing resources and managing resource licenses. These services being ordinary to the developed countries, is a major achievement for the KNUST library considering that it receives a meager budgetary allocation of just about 2% of the total subvention granted to the University (Lamprey 2010). This is a far cry from the expected 10% of the budget that the Library system is supposed to receive as budgetary allocation to operate. Thus, it can be seen that KNUST library as an academic library has been very effective and efficient in using the scarce resources at its disposal and by means of employing appropriate technology met to a great extent the ever changing and sophisticated needs of today's researchers and learners. The KNUST Library have been able to engage the user community and made itself as very useful as it could possibly be and is pushing to retain its position as a fulcrum around which the learning, teaching and research activities – the core function of the University - should revolve.

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