



Open access in institutions of higher learning in Botswana

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Abstract:

This paper seeks to assess the understanding, reception and implementation of Open Access (OA) by librarians in 5 selected institutions of higher learning in the fields of education, health science nursing, and police training. It will further identify the challenges that the librarians face with OA resource and the possible solutions. It is hoped that this study will show the level of understanding and appreciation of the concept of OA, the OA resources available in the libraries under assessment and the initiatives that librarians are taking to sensitize their users about OA.

Keywords: open access, institutions of higher learning

Introduction

Access to information in institutions of higher learning is a democratic right accorded by the constitution of Botswana (Section 12) . For learners respect for this right can not be over emphasized; access to information is fundamental to the attainment of

their degrees. However, with limited funding libraries in Botswana are poorly resourced and, relevant information is not always easy to come by.

Institutions of higher learning in Botswana like similar institutions in other parts of the developing world are plagued by insufficient funding and legal constraints such as copyright to fully resource their libraries. However, information has become more liberalized and more accessible than ever before through initiatives such as Open Access (hereinafter referred to as OA). OA is a movement that has a long history but it gained momentum in the 1990s as technology improved (Wikipedia). Researchers have always been in support of a move towards open access but such access was hampered by the format of information packaging; information was mostly packaged in print formats as such publishers had to recover costs and make profit. The emergence and further advancement in Internet technology made dissemination of OA information by much easier.

Purpose of the Study

The aim of the study was to assess the knowledge and understanding of OA by librarians in the selected colleges. There were three key areas of focus: availability of **computers** with internet connection in the library, **awareness** of OA by the librarian, **challenges** if any that affect access to OA and possible solutions (that is an analysis of the library and the librarian). Librarians in five institutions of higher learning (Colleges) in the field of health sciences, education and police training were interviewed. The information obtained is expected to assist the library community in developing strategies to promote and effectively implement OA resources.

Methodology

The study was conducted by way of a questionnaire. The questionnaire was circulated by email, followed by physical visits to the libraries and verbal discussions with the librarians.

Defining OA

“...free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited” Budapest Open Access Initiative (2001).

Open Access (OA) seeks to provide free and unrestricted access to online information (unrestricted in all aspects, it be copyright limitations or licensing). The only restriction may be the requirement to give the author due acknowledgement for their work. The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities stipulates that for a work to be recognized as OA, the copyright holder must consent in advance to allow users to "copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship....".

Research to assess the impact of OA on research has shown that OA is heavily utilized and the statistics continues to grow. According to Harnard (2004), OA articles are cited more quickly and more frequently than non-open access articles. Why is OA so popular? Some of the factors linked to the popularity of OA resources are:

- More relaxed copyright restrictions. The “permission crisis” (Suber, 2003) where access is subject to authorization either due to restrictive licensing terms and or restrictive copyrights such as Digital Rights management (DRM) rule fall off in OA since the control over copyright rests with the author. Usually where there is copyright limitations in respect of an OA resource it will be in relation to acknowledgement and proper citation. The principle of OA requires that the author consents in advance to unrestricted reading,

downloading, copying, sharing storing, printing, searching, linking and crawling (Berlin, Bathedsa Declarations: 2003 and 2003 respectively)

- The cost factor – OA information is free. Libraries in Africa are inhibited by the subscription fees (Ngwagwu, 2009) and this problem does not affect Africa alone, research has shown that even in developed countries there is evidence that high subscription fees for journals have an effect on research According to Suber (2003) “Every research institution in the world suffers from intolerable access, no matter how wealth. Not only must libraries cope by cancelling subscriptions and cutting into their book budgets, but researchers must do without access to some of the journals critical to their research.” (Suber, 2003, p1).
- OA is free and any library regardless of its budget can afford OA resources so long as they have internet access.
- OA articles are as good as the articles that appear in subscription journal; they are peer review and because they are accessed for free, can be reached by so many other researchers who can continually contribute to their further improvement and or critique.
- OA policies guarantee the accomplishment of human and social rights (Rossini, p 13). Knowledge empowers societies to be able to be productive, efficient and effective in all aspects of life.
- Ease of access - OA can be accessed anywhere any time as such it is excellence for supporting distance and online learning. Given that the information is in electronic format, more users can access the same article at the same time as opposed to when there is one print journal issue in the library meaning that only one person can use the copy at any given time.

Implementation of OA could mean huge savings in licensing and acquisition costs, wider access to materials through computers and flexibility in access time frame. Thus access could be attained even when the library is closed, so long as the user has access to a networked computer. This spells a big advantage for libraries as they can avail information with limited expense.

Government policies

The Government of Botswana has committed through ICT policies to improve infrastructure, connectivity and to promote educational use of ICTs. Of particular reference here are the *Revised Education Policy, Botswana's Long Term Vision 2016*, *Tertiary Education Policy* (2008) and the *Maitlamo National ICT Policy* (2005) which have a direct bearing on ICT in education. Isaacs (2007) gives an analysis of ICT in education in Botswana which includes an overview of the government policies, and other initiatives and projects targeted and improving internet connectivity for education. It has also been shown that Botswana has excellent telecommunication infrastructure (Mutula 2004).

Vision 2016 (1997)

Vision 2016 is Botswana's strategy to propel its socio-economic and political development into a competitive, winning and prosperous nation. The vision has seven key goals one of which is to be *An Educated and Informed Nation*. Through this pillar the country strives to be an information and knowledge society and to have in place a quality education system that is accessible and is able to adapt to the changing needs of the country as the world around us changes. Botswana will also enter an information age on an equal footing with other nations and seeks and acquire the best available information technology and become a regional leader in the production and dissemination of information. ICT is thus a critical component of this pillar. Furthermore attainment of all the 7 pillars is dependent on knowledge acquisition and as such there is a need to facilitate access to information through the improvement of ICT infrastructure.

Revised National Policy on Education (1994)

The policy recognizes the value of information technology in the early stages of learning. It recommends for the introduction of computers at senior secondary and community junior secondary school level. This would introduce children to technology at an earlier age and build into their tertiary education while at the same

time building into attaining the aims and objectives of the *Vision 2016* towards building an information society for Botswana.

Tertiary Education Policy (2008)

The tertiary education policy called *Towards a Knowledge Society* lays down the framework for tertiary education in Botswana. It describes the approach to developing tertiary education and how it will contribute to the realization of the national development goals. Under clause 3.26 of the policy that focus on research and innovation requires that tertiary education system play a leading role in transforming Botswana into a knowledge driven innovate society.

Maitlamo: National Policy for ICT Development (2005)

Maitlamo is the government ICT road map for Botswana that aims to provide communication networks to drive social economic, political and cultural transformation towards national development through effective use of Information and Communication Technology (ICT). *Mitlamo* incorporates *ThutoNet* which is a policy primarily focused on the promotion of e-learning in schools. The objectives of *ThutoNet* include: improvement of access to computers in schools including vocational and tertiary level, improving of internet connection, and capacity building on ICT skills for teachers.

Key findings of the study

(i) Availability of computers

Access to OA is dependent on the availability computers with reliable and fast Internet connection, without access to the internet, accessing OA resources is impossible. What was discerned from the study is that all but one of the institutions surveyed had computers in the library, although with a very low student/computer ration (one library has 4 computers to 510 students, the other has 16 to about 300 students, another one has 4 to about 150, and the last one has 2 computer to 456 students). The college that did not have computers in the library had in the past had

6 computers for users in the library but all 6 were stolen. The college is currently in the process of acquiring new ones which it is reported will all be connected to the internet.

All 5 colleges have internet connection in the library; however they all reported that the connection is very slow and sometime unavailable. It was also establish that the colleges have computer labs accessible to students and which also have Internet connection. This was noted as a positive sign because OA is all about access that is not restricted to location.

(ii) Awareness of OA and its implications

The study showed that out of the 5 librarians interviewed only two were aware of what OA is about. The awareness of the librarians about OA could be attributable to a number of factors such as the level of training, exposure and experience of the librarians.

(iii) Challenges

The librarians interviewed identified the following challenges as being key to making OA accessible through their libraries:

- Insufficient computers – there are few computers compared to the number of students in all the colleges;
- Slow internet connection;
- Lack of awareness and knowledge of OA ;
- Poor quality of the computers in the library – where computers are of low quality or old, that hampers internet access as it becomes too slow and the computers are prone to freezing while one is working;
- Inadequate information sharing among librarians – librarians decried the lack information sharing by colleagues who have knowledge on issues of Open Access;
- Inadequate ICT skills on the part of librarians and library users.

(iv) Possible solutions to the challenges

The librarians interviewed recommended the following possible solutions to the challenges identified:

- Development of awareness programmes on the value of OA targeting librarians and library users – this came out strongly from all of the interviewees;
- Increasing the number and quality of computers in libraries;
- Better and faster internet connection;
- More information sharing among librarians
Equip library users and librarians with the relevant ICT skills.
- In addition, Government involvement (Nwagwu, 2009) through the relevant policy and structures that influence the adoption and implementation of OA is necessary. Policy structures place an element of “ownership” and “accountability” on the part of government. Making computers and internet connection affordable is another option; if people had increased access and internet connectivity in their homes, which is a challenge in Botswana, this could ease the challenges noted affecting libraries in Botswana. Access to computers and internet at home can help to alleviate the problem of few computers in the library as users can refer to online resources at home.

Conclusion

The results of the study reveal that the main challenge regarding access to OA is the limited awareness of OA on the part of the librarians. There is a need to aggressively promote the use OA in Botswana. Librarians need to take deliberate steps unilaterally and collectively (through the Botswana Library Association) to advocate for OA. Possible initiatives that may be put into place are: encouraging users to use OA, training librarians on the importance/ advantages of OA, training librarians on how to identify relevant OA resources for their user groups, teaching users how to effectively locate OA resources on the internet on their own, encouraging users to develop their own OA--that way they will appreciate the value of OA more, and to

place OA on the library website for more visibility to users. In one interaction with the interviewees, it was suggested to them that a list of OA identified by the library could be put up on the notice board to reach all users including those who may be shy to use technology.

It is submitted that access to OA and other online resources is not an impossible goal to attain for libraries in institutions of higher learning in Botswana. As the study has shown at least all the colleges visited have internet connection, computers (albeit very few) and a user group (students and lecturers) that will be most welcoming to OA to support their study and research. Getting effective usage will be a challenge but the information on need and an indication of interest to use OA can be used as a tool in advocating for better resources from government and other potential sponsors.

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