

The Open Access Landscape in Zimbabwe: the case of university libraries in ZULC

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Abstract

Purpose: The paper focuses on the current state of Open Access (OA) initiatives in Zimbabwean Universities. The paper specifically reports the initiatives at Zimbabwean universities regarding institutional repositories that promote OA and other digital OA collections.

Methodology: A qualitative research methodology was adopted. Questionnaires were used as the primary data collection method for this research. The research sought to address the following specific areas: state of Institutional Repositories and Open Access in Zimbabwe, Discoverability of content, Open Access Policies and Mandates, benefits of Open Access in Zimbabwe and institutional OA future plans. A total of eight out of twelve universities responded to the questionnaire. The data provided by the universities involved in the research were summarised to give a general picture of the Open Access landscape in Zimbabwe.

Findings: The current initiatives that the universities involved in this survey indicate that most universities in Zimbabwe are going to have institutional repositories that promote Open Access to information. Most institutions in Zimbabwe are already working on putting Open Access policies in place in a bid to promote Open Access.

Originality: The research will shed more light on the status quo of the open Access initiatives in Zimbabwe, particularly with regards to institutional repositories, Open Access policies and Open Access Mandates.

Keywords: Open Access, Institutional Repositories, Open Access policies, mandate, Zimbabwe

Introduction

Literature on the state Open Access (OA) initiatives in Zimbabwe is very limited. A search for institutional repositories and OA in Zimbabwe on the web yields very little information. Nyambi and Maynard (2012), report that a single institutional repository was registered with the Directory of Open Access Repositories (DOAR) in Zimbabwe. This paints a gloomy picture on the development of institutional repositories as vehicles for promoting OA in Zimbabwe. According to the OpenDOAR

<http://opendoar.org/find.php?clD=238&title=Zimbabwe>), Zimbabwe now has four registered institutional repositories. Three of the repositories belong to academic institutions namely the University of Zimbabwe Library, Bindura University of Science Education Library and the National University of Science and Technology Library with the other repository belonging to the African Capacity Building Foundation (ACBF), which is a developmental organisation. This is against a backdrop of a total of 14 universities in Zimbabwe.

This paper seeks to map the progress that has been made by institutions in the Zimbabwe University Libraries Consortium (ZULC) in establishing institutional repositories and promoting OA in Zimbabwe. As a result, the paper sheds more light on the OA collections available in the ZULC institutions. It also seeks to establish whether there are OA policies and mandates in these institutions to drive forward the OA initiatives at the various institutions.

The data was collected between January and February 2013. Eight institutions out of the 12 academic libraries that are in ZULC took part in the research. Questionnaires were used as the data collection instrument. The data provided by the universities involved in the research were summarised to give a general picture of the OA landscape in Zimbabwe.

Literature review

Lynch (2003) refers to OA as “a cost effective way of disseminating and using information” and further points out that OA works are “created with no expectation of direct monetary return and made available at no cost to the reader on the public Internet for purposes of education and research.” Suber (2012) further stresses that OA removes ‘price barriers’ and ‘permission barriers’ in accessing the information. Waller (2007) gives a more detailed definition of OA: “By “open access” to this [scholarly] literature, we mean its 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.”

Crow (2002), defines institutional repositories as “digital collections that capture and preserve the intellectual output of university communities—respond to two strategic issues facing academic institutions: 1) they provide a central component in reforming scholarly communication by stimulating innovation in a disaggregated publishing structure; and 2) they serve as tangible indicators of an institution’s quality, thus increasing its visibility, prestige,

and public value.” Chan (2004) explains an institutional repository as “a university-based digital-asset management system” that acts as a scholarly communication platform. Lynch (2003) refers to institutional repositories as “essential infrastructure for scholarship in the digital age” and indicates that institutional repositories are vehicles for OA as they facilitate data and information sharing.

According to the OpenDOAR (<http://www.opendoar.org/>), “OpenDOAR is an authoritative directory of academic open access repositories. Each OpenDOAR repository has been visited by project staff to check the information that is recorded here. This in-depth approach does not rely on automated analysis and gives a quality-controlled list of repositories.” OpenDOAR lets researchers search for repositories, view IR statistics as well as help administrators and service providers in sharing best practices. According to Lone (2008), the Directory of Open Access Repositories (OpenDOAR) was created in 2005 by the University of Nottingham, United Kingdom.

Sahu (2006) notes that, “The conventional model of scholarly communication, based on journal publication, has failed to make information accessible and usable especially for the developing world owing to toll-based access.” Africa, Sub-Saharan to be specific (and Zimbabwe to be precise), has not been spared from this predicament as the toll fees are beyond the reach of many institutions. In this regard, institutional repositories have been one of the solutions that enhance scholarly communication as Sahu (2006) notes that “electronic tools facilitate and speed up the process of dissemination of knowledge beyond the limits of printed volumes of a journal. Electronic publishing also helps to propagate the knowledge across the world.” Further institutional repositories are ideal for increasing visibility and accessibility and impact to research (Sahu, 2006). Bankier and Perciali (2008) note that, “Universities have always been one of the key players in OA publishing.” With 14 universities in Zimbabwe, the above notion stands to be examined and scrutinised as Nyambi and Maynard (2012) reported the participation of only one institution on the OA front.

Naturally, OA publishing potential is inherent in University setups as much of the research published in journals is from academic institutions as propounded by Bankier and Perciali (2008). Universities provide many of the OA repositories to which authors can post articles destined for or published in subscription-based journal (Bankier and Perciali, 2008). OA repositories are an electronic way of communicating research to its intended audience. Swan (2006) states that people publish for a number of reasons that include communicating results to peers, advancing one’s career, personal prestige, gain funding, as well as for financial rewards. This is in tandem with the key functions of institutional repositories as highlighted by Nyambi and Maynard (2012) who point out that “visibility, usage and impact of

researchers' own findings also increases with OA, as does their ability to find, access and use the findings of others".

Research (Pinfield, 2005; Correia and Teixeira, 2005; Bankier and Perciali, 2008 and Nyambi and Maynard, 2012) has shown that there are a number of challenges associated with the adoption of OA. Nyambi and Maynard (2012) state that some of the challenges, with specific reference to the Zimbabwean situation include small and poor publishing industry, brain drain (the emigration of qualified and skilled manpower from Zimbabwe to other countries), technological problems, legal and copyright issues, communication and marketing issues, as well as limited government and institutional support. Bankier and Perciali (2008) point out that repositories are being hampered by slow author uptake.

Suber and Arunachalam (2006) state that Internet connectivity and related infrastructure is increasingly becoming affordable to institutions from the developing countries. Suber (2004) states that, "every university in the world can and should have its own open-access, OAI-compliant repository and a policy to encourage or require its faculty members to deposit their research output in the repository." Pinfield (2005) argues that the fastest way to get institutional repositories functioning is through making deposition mandatory while Correia and Teixeira (2005) are of the view that "establishing Open Access requires active commitment by all parties involved".

Methodology

A qualitative research methodology was adopted. Questionnaires were used as the primary data collection method for this research. The questionnaires were designed to gather information that would help the researchers report on the OA landscape in Zimbabwe. A qualitative methodology was adopted because the research sought to understand the milestones, challenges, policy issues and also the solutions that could help in the promotion of OA. The questionnaires were distributed through e-mail to librarians who are responsible for institutional repositories in their respective institutions. The study focused on 12 universities that are in the Zimbabwe Universities Library Consortium (ZULC). Questionnaires were sent to all the 12 universities in the consortium. A total of eight universities responded to the questionnaire. The data provided by the universities involved in the research were summarised to give a general picture of the OA landscape in Zimbabwe.

Results

The results of the research are categorised according to the headings that emerge from the questionnaire:

- State of Institutional Repositories and OA
- Discoverability of content
- Other OA Initiatives
- OA Policies and Mandates
- Benefits of OA in Zimbabwe
- Challenges faced
- Solutions to the challenges
- Institutional OA future plans
- Future of OA in Zimbabwe

State of Institutional Repositories and OA

Two universities out of the eight universities involved in the research have fully functional institutional repositories that are available on the internet. The first institutional repository to be established was that of the University of Zimbabwe in 2005, while National University of Science and Technology established their institutional repositories in 2008. Three universities (Africa University, Midlands State University and Chinhoyi University of Technology) have institutional repositories that are only accessible on the intranet while three universities (Bindura University of Science Education, Great Zimbabwe University and Lupane State University) do not have institutional repositories in place.

The National University of Science and Technology and University of Zimbabwe institutional repositories are OA compliant. These two repositories are listed on the Directory of Open Access Repositories (<http://opendoar.org/find.php?cID=238&title=Zimbabwe>). Bindura University of Science Education was listed on OpenDOAR during the time of compiling the findings of this research. However, during data collection three other universities pointed out that their repositories are OA compliant yet the repositories are only accessible on their Local Area Network (LAN). These repositories cannot be said to be OA compliant since the collections are not publicly accessible.

The types of materials that are included in the institutional repositories of the institutions that were involved in this research are outlined in Table 1.

Table 1: Items in Institutional Repositories

Institution	Number of Items*	Journal Articles	Conference Papers	Theses and Dissertations	Past Exam Papers	Books & Book Chapters	Working Papers	Technical/ Research Reports	Seminar Papers	Newspaper Articles
AU	1200	•		•		•	•			
BUSE	200	•	•	•		•				
CUT	1252		•	•	•	•			•	
MSU	3804	•	•	•				•		
NUST	90	•	•	•		•		•		•
UZ	628	•	•	•		•	•	•	•	

**Numbers correct as at time of data collection*

Key

AU – Africa University; **BUSE** – Bindura University of Science Education; **CUT** – Chinhoyi University of Technology; **MSU** – Midlands State University; **NUST** – National University of Science and Technology; **UZ** – University of Zimbabwe

Discoverability of content

Only material in the National University of Science and Technology and the University of Zimbabwe Institutional repository are searchable via Google Scholar. Materials from other repositories are not searchable via Google Scholar because the repositories are still only accessible through the Local Area Network.

The data gathered during this research indicate that the information in the institutional repositories is searchable through various access points which include author, title, keyword, subject, date and collection. The number of materials in the repositories varies from institution to institution. Table 1 shows the number of materials that are available in the institutional repositories of the institutions that were involved in the research.

Other OA Initiatives

One critical aspect in promoting OA by academic libraries is the provision of access to external OA resources through their websites. External OA resources are the OA resources that are provided elsewhere. For example, the University of Zimbabwe provides links on its website to OA resources such as Open J-Gate, Directory of Open Access Journals, PLOS, and Open Research Online among others. Three institutions out of the eight involved in this research provide access to other OA collections. The University of Zimbabwe provides access to 107 external OA resources, Africa University provides access to one resource, Chinhoyi University of Technology provides access to 492 and Midlands State University provides access to 36 external OA resources. The other five institutions are yet to begin other OA initiatives outside institutional repositories.

OA Policies and Mandates

Three universities out of the eight universities have OA Policies. These are Africa University, Midlands State University and the University of Zimbabwe. All the other five universities are planning to have OA Policies. Three of the five institutions without the policy express hope that the policy will be in place in 2013 with only one institution predicting that they would have the policy by 2014. However, one institution indicated that they have no plans to have any OA mandate in place. Table 2 indicates the estimated dates which the policies will be in place:

Table 2: Estimated date for OA Policies

Institution	Estimated date for policy
Bindura University of Science Education	March 2013
Chinhoyi University of Technology	December 2013
Great Zimbabwe University	2013
Lupane State University	December 2013
National University of Science and Technology	2014

Benefits of OA in Zimbabwe

Africa University, Bindura University of Science Education, Midlands State University and Chinhoyi University of Technology all alluded to the fact that they were benefitting from increased access to locally generated content. Africa University and Bindura University further went on to mention that the repositories were exposing information seekers to information that is in a variety of digital formats. Chinhoyi University of Technology and

Midlands State University mentioned that researchers are now able to manage their research portfolios and they are increasing their visibility though this is at a local level.

Two of the Universities that participated in the study are yet to realise any benefits from OA initiatives. These were Great Zimbabwe University and Lupane State University. This can be attributed to the fact that the Universities are still at the inception stage as they are fairly new on the academic arena. To date these universities do not have Institutional Repositories though they are expecting to establish some in the near future.

The National University of Science and Technology Library and the University of Zimbabwe Library mention that their researchers are enjoying increased research impact due to wide viewership and readership that is global in nature. In this regard the University of Zimbabwe mentioned that OA has made it possible for its researchers to enjoy increased departmental, faculty, institutional and personal visibility. The two institutions are now able to direct their respective research clientele to other OA repositories and information sources that complement their particular OA collections. This has been possible through the provision of OA related links on their websites as well as on their repositories. The University of Zimbabwe further went on to mention enhanced institutional research memory, enhanced research portfolio management and enhanced scholarly communication among the benefits it is deriving from the OA Initiative through its institutional repository. On enhanced scholarly communication, the institution is enjoying enhanced information sharing and networking as a result of participating on the OA front.

Challenges faced

All the Universities involved in the study lamented that there were low submission rates of articles for uploading onto institutional repositories. They all alluded to the fact that most researchers are still sceptical about the “OA movement.” The National University of Science and Technology Library cited ignorance and lack of appreciation of OA by stakeholders as major inhibitors. Great Zimbabwe University lamented the lack of technical expertise in establishing an OA Repository. Bindura University of Science Education Library, National University of Science and Technology Library, and the University of Zimbabwe Library highlighted that resources to smoothly run the repositories were scarce. Inadequate funding is also a major hindrance to the success of the repositories at the aforementioned institutions.

Intellectual property issues were mentioned as an impediment to the success of the OA initiatives in Zimbabwe. Three of the institutions that participated in the study indicated that copyright clearance is slowing down the deposition of papers into institutional repositories.

Midlands State University mentioned that they are yet to put their repository on the Internet because of intellectual property issues that they need to take care of. The National University of Science and Technology Library mentioned that there are “concerns over violation of Copyright through depositing papers published elsewhere in the institutional repository.” The University of Zimbabwe Library revealed that “...lack of understanding of intellectual property rights (copyright) by authors and researchers” was hampering progress as most of the researchers sold all their rights unknowingly making self-archiving difficult or impossible. The University of Zimbabwe Library and the National University of Science and Technology Library also touched on policy issues as some of the inhibiting factors. For example, in the University of Zimbabwe OA Policy, the submission policy is not defined making it difficult for librarians to recruit content. The metadata policy for the University of Zimbabwe is also undefined making it difficult to maintain consistence in the description of items deposited in the institutional repository.

Solutions to the challenges

The respondents for this survey suggested several solutions to the challenges hampering OA. Africa University, Lupane State University and the University of Zimbabwe Library suggested that workshops would go a long way in solving some of the challenges that were raised in the above section. Suggested workshops included Marketing, OA and Self Archiving, Copyright and Intellectual Property rights. It was recommended that rigorous and proactive marketing would help clear some of the OA huddles. The University of Zimbabwe Library, Midlands State University and the National University of Science and Technology Library recommended that OA policies and mandates would go a long way in paving the way for OA in Zimbabwe. The consensus was that this would compel institutions and researchers to support OA initiatives.

Great Zimbabwe University mentioned that networking with the University of Zimbabwe would get its ball rolling. They cited that they could get help with establishing their own institutional repository as University of Zimbabwe was well advanced where institutional repositories and OA are concerned.

Another solution that was highly recommended was the issue of advocacy work within universities. This notion was supported by Bindura University of Science Education Library, Chinhoyi University of Technology Library, the National University of Science and Technology Library and the University of Zimbabwe Library. They highlighted that early adopters and champion persons were better placed to market the OA concept to their peers

more than the librarians were capable of doing alone. This strategy was suggested as a means of getting faculty buy-in, stakeholder involvement, as well as project ownership.

Some of the suggested solutions included promotion of OA journals and publishers to researchers and academics, allocating more resources to OA initiatives and participating in OA global initiatives such as the Open Access Week.

Institutional OA future plans

Africa University plans to provide an internationally recognised 'e-Database.' Bindura University of Science Education Library plans to Develop OA policy briefs; Advocate for OA initiatives; and introduce an OA policy framework at institutional level working together with research board. At Chinhoyi University of Technology, the library is working to promote OA through awareness workshops and encouraging uploading of works on Chinhoyi University of Technology Institutional Repository. Lupane State University plans to put together an OA policy and a rigorous marketing plan. The Midlands State University sees itself becoming an OA publisher in the future. As a signatory to the Berlin Declaration on Open Access in the Sciences and Humanities, the National University of Science and Technology Library is set to implement the principles of OA as enshrined in the declaration. University of Zimbabwe is planning on an OA mandate, working on a proactive marketing approach and making steps towards providing e-theses on an OA basis.

Future of OA in Zimbabwe

The respondents in this survey predicted a bright OA future in Zimbabwe. Below are some of the opinions about the future of OA in Zimbabwe.

The OA movement is being widely adopted by Zimbabwe Universities and in the near future it is going to be a full-fledged movement that is supported by all. This derives from the OA workshops and events that have been held in Zimbabwean institutions of higher learning. OA is going to allow for the South-North flow of information. This is going to enhance the availability of relevant information that best suits Zimbabwean contexts.

OA will soon be understood and embraced by the majority of research institutes in Zimbabwe.

I feel it is getting the necessary attention...and with close collaboration among universities it will go a long way.

OA has the potential to accelerate research and enhance economic development in Zimbabwe

I think OA concept will become more and more acceptable in Zimbabwe as it makes research work more visible, increase usage as well as impact.

Conclusions and Recommendations

The current initiatives at the universities involved in this research indicate that most universities in Zimbabwe are going to have institutional repositories that promote open access to information. Although there are currently three institutions in Zimbabwe that have institutional repositories that are registered with OpenDOAR, there is determination by other institutions to promote OA. It is therefore expected that many institutions in Zimbabwe will have institutional repositories that are OA compliant in the not too distant future.

As has been seen in this survey, most institutions in Zimbabwe are already working on putting OA policies in place in a bid to promote OA. The adoption of OA policies will certainly prove to be a positive step in the promoting OA in Zimbabwe. This would mean that most of the research done by Zimbabweans at their various universities would be visible and available to a wider audience across the world. Zimbabwean readers are expected to be the biggest beneficiaries given that most academic institutions in Zimbabwe are deprived of works by their own academics because of the high costs of subscription journals.

A number of benefits are being realised from the use of Institutional Repositories as vehicles for promoting OA. Even though most of the repositories are not yet fully OA compliant (they are intranet based), there are some benefits that the institutions are already enjoying through providing information through institutional repositories.

The number of materials already in the repositories at the institutions that were involved in this survey shows that academic libraries are taking OA seriously. There is going to be a lot of OA material in Zimbabwean academic institutions once the repositories that are only accessible on local networks become publicly available on the Internet. It is recommended that the institutional repositories that are still only accessible through local networks should be made available on the Internet quickly to increase the visibility of the information and the visibility of the authors and their institutions.

It is highly recommended that all the institutions that have not yet adopted OA policies speed up the process and finalise the policies. The adoption of the policies would ensure that more

information that is published by local researchers becomes available to both local and international audiences. In addition, having OA policies would increase the amount of content that librarians can recruit to populate their institutional repositories because faculty members would be more aware of their responsibility to contribute items into the institutional repositories.

Institutions that are still to have institutional repositories as vehicles for promoting OA are encouraged to establish their own institutional repositories. The institutions that have already implemented institutional repositories should be in a position to assist emerging institutions. Learning from others will mean that institutions can be able to establish their repositories quickly and make information publicly available.

Given that the issue of copyright clearance is a major challenge that is hampering the deposition of content in institutional repositories, libraries should be proactive in their handling of copyright issues in order to facilitate the deposition of research papers into institutional repositories. Academic librarians should take up the role of educating academics and researchers on how to negotiate copyright. Apart from that, a dedicated member of staff can be assigned to deal with copyright clearance so that all works by local authors and researchers that are copyright protected can be deposited into institutional repositories as quickly as possible.

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