Open Access Electronic Publishing for Increased Online Visibility: Tooling Challenges and Potential Solutions

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ZCAS Colloquium on “Sharing Knowledge and Best Practices”
Outline

● Introduction
● Open Access Output
● Benefits of Open Access
● “Some” Notable Challenges
● “Some” Potential Solutions
Where is the missing content?

https://worldmapper.org
OATD automatically harvests Electronic Theses and Dissertations (ETDs) from university around the world.
Where is the missing content?

- The so-called Global South is grossly underrepresented
Most universities in Zambia do not have functional ETD portals and/or IRs
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Open Access literature

What is open access?

Open access (OA) refers to the practice of making peer-reviewed scholarly research and literature freely available online to anyone interested in reading it. Open access has two different versions—gratis and libre.

Open access (OA) means making research publications freely available so anyone can benefit from reading and using research.

Open access (OA) refers to freely available, digital, online information. Open access scholarly literature is free of charge and often carries less restrictive copyright and licensing barriers than traditionally published works, for both the users and the authors.

While OA is a newer form of scholarly publishing, many OA journals comply with well-established peer-review processes and maintain high publishing standards. For more information, see Peter Suber's overview of Open Access: http://legacy.earlham.edu/~peters/fos/overview.htm.

Open Access Concepts

1. Digital
2. Freely available
3. No barriers

Open Access literature

1. Conferences
2. Journals
3. Books
4. OERs
Conferences, workshops & symposiums (1/3)

Zambia Second National Conference
On Geology, Mining, Metallurgy and Groundwater Resources
Diversification and Value Addition in the 21st Century
(21-23 November, 2019, Kitwe, Zambia)
At Garden Court Hotel

Zambia is endowed with abundant mineral wealth. The mineral industry is the
economy of the country, and will continue to be so in the foreseeable future
export constitutes an important source of country's foreign currency and
Mineral exploration and production comprise a major part of their economic
employment. Further, the African Union's vision seeks to have a mining
transparent, equitable and
underpinned broad based sustainable

http://www.unza.zm
Conferences, workshops & symposiums (2/3)

Open Conference Systems

Open Conference Systems (OCS) is a free Web publishing tool that will create a complete Web presence for your scholarly conference. OCS will allow you to:

- create a conference Web site
- compose and send a call for papers
- electronically accept paper and abstract submissions

PKP is a multi-university initiative developing (free) open source software and conducting research to improve the quality and reach of scholarly publishing

https://pkp.sfu.ca/ocs
Conferences, workshops & symposiums (3/3)
The Zambian Journal of Library & Information Science (ZAJLIS) is a journal in the field of Library and Information Science in Zambia. It is published bi-annually by the Department of Library and Information Science at the University of Zambia. The goal of ZAJLIS is to publish insightful, innovative and effective research to satisfy both local and international scholars and professionals in the province of Library and Information Science.

Current Issue


We are pleased to publish the third issue of ZAJLIS.

Published: 2019-11-10

Information Seeking Behaviour and Library

Agricultural Information Provision for Enhance Zambia

chrispin Hamooya, Misozí Ngoma

https://zajlis.unza.zm

The Zambia ICT Journal (ISSN: 2616-2156) is published four times a year by the ICT Society of Zambia with technical support from the University of Zambia, Copperbelt University and Mulungushi University. The objective of Journal is to support and stimulate active productive research which could strengthen the technical foundations of engineers and scientists in the African continent, develop strong technical foundations and skills and lead to new small to medium enterprises within the African sub-continent. We also seek to encourage the emergence of functionally skilled technocrats within the continent on publishing research results and studies in Computer Science and Information Technology through a scholarly publication. The Zambia ICT journal is double blind peer reviewed.

Announcements

Call for papers for Volume 2 Issue 2 (due 31 August 2018)

http://ictjournal.icict.org.zm

2018-06-29
Open Journal Systems

“Scholars need the means to launch a new generation of journals committed to open access, and to help existing journals that elect to make the transition to open access...”

Budapest Open Access Initiative, 2002
Journal publications (3/3)

The University of Zambia Journals

Journal of Adult and Youth Education (online ISSN 2664-5688)

The Journal of Adult and Youth Education (JAYE) is a biannual serial published twice a year. It addresses contemporary issues related to adult, community development and youth education.

View Journal  Current Issue

Zambia Journal of Education (Online ISSN 2664-3170; Print ISSN 1996-3645)

The journal is published bi-annually by the School of Education of the University of Zambia through its Editorial Board. Contributions of articles are invited from researchers, teacher educators, institutional managers, teachers, and other practitioners of education in Zambia, the sub-region and beyond.

http://journals.unza.zm
Institutional Repositories (1/2)

Theses and Dissertations

BROWSE BY

- By Issue Date
- Authors
- Titles
- Subjects

Search within this community and its collections:

Search

Collections in this community

- Agricultural Sciences [192]
- Education [759]
- Engineering [86]
- Humanities and Social Sciences [755]

http://dspace.unza.zm

November 28, 2019
Institutional Repositories (2/2)

Welcome to ZCAS Universities digital repository!
More exciting news to appear here.

Communities in DSpace
Choose a community to browse its collections.

School of Business and Management
This school incorporates all the best business aspects that ZCAS University has to offer.

School of Humanities and Social Sciences

Discover

Author
Mbewe, Serah Beza 2
Beza Mbewe, Serah 1
Kalebe, Moses 1
Kanumba, Sidney 1

Subject
Access to finance, Developing cou... 1
Awareness 1
Business Rescue

Date issued
2019 6

Has File(s)
true 6

http://41.63.8.17:8080/jspui
And there is more output [...]
Open Access benefits (1/4)

- As the institution expands to offer more advanced degrees, portals provide a mechanism to showcase research output.

<table>
<thead>
<tr>
<th>ID</th>
<th>Post Graduates Programmes</th>
<th>Duration</th>
<th>Start Date</th>
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<tbody>
<tr>
<td>MBA</td>
<td>Master of Business Administration - Finance</td>
<td>18 Months</td>
<td>January 14, 2019</td>
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<tr>
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<td>January 14, 2019</td>
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<td>Master of Science Financial Services</td>
<td>18 Months</td>
<td>January 14, 2019</td>
</tr>
<tr>
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<td>January 14, 2019</td>
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<tr>
<td>MAF</td>
<td>MSc Accounting and Finance</td>
<td>18 Months</td>
<td>January 14, 2019</td>
</tr>
</tbody>
</table>

http://www.zcas.ac.zm
Open Access benefits (2/4)

- Source of data for reporting purposes
  - Metrics can easily be extracted from portals
  - Analytics on how external entities interact with outputs

 Featured

 News and Press statement

 HEA HOSTS WORKSHOPS ON EFFECTIVE TEACHING FOR HIGHER EDUCATION
 Published: 21 November 2019

 Happy 45th Birthday, Dr. Mushimba
 Published: 07 November 2019

 HEA Staff attend training on the e-GP - Zambia e-Government Procurement System
 Published: 11 October 2019

 50th Independence Address

 HEA Director General's independence address

 Upcoming Events

 WORKSHOP ON EFFECTIVE TEACHING FOR HIGHER EDUCATION

 Higher Education Authority invites all interested in teaching and learning at higher education to this workshop.

 Who should attend?
 University and college lecturers, administration staff, and anyone interested in teaching and learning at higher education institutions.

 Dates
 UZAKA: 3rd to 5th December 2019
 UZWE: 18th to 20th December 2019
 Venue: TBA

 Workshop Fee
 $4,500 per participant; includes meals and workshop materials.

 Booking
 Call: 211-227664
 Call: 097830807
 Email: progproj@zmvu.ac.zm
 Email: cheru@zmvu.ac.zm
 Register online: www.zmvu.ac.zm/booking

 CLICK HERE TO DOWNLOAD REGISTRATION FORM.

 CLICK HERE TO REGISTER ONLINE.

 https://hea.org.zm
Open Access benefits (3/4)

1. Academic database indexing
2. Global institutional visibility
3. Faculty visibility

https://scholar.google.com
Open Access benefits (4/4)

<table>
<thead>
<tr>
<th>ranking</th>
<th>World Rank</th>
<th>University</th>
<th>Det.</th>
<th>Presence Rank*</th>
<th>Impact Rank*</th>
<th>Openness Rank*</th>
<th>Excellence Rank*</th>
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<td></td>
<td>20041</td>
<td>16142</td>
<td>10778</td>
<td>6008</td>
</tr>
</tbody>
</table>

Research output is also a key topic for Webometrics, but including not only formal (e-journals, repositories) publications but also informal scholarly communication. Web publication is cheaper, maintaining the high standards of quality of peer review processes. It could also reach much larger potential audiences, offering access to scientific knowledge to researchers and institutions located in developing countries and also to third parties (economic, industrial, political or cultural stakeholders) in their local community.

We intend to motivate both institutions and scholars to have a web presence that reflect accurately their activities. If the web performance of an institution is below the expected position according to their academic excellence, university authorities should reconsider their web policy, promoting substantial increases of the volume and quality of their electronic publications.
Federated downstream services (1/2)
Federated downstream services (2/2)

- Plans currently underway to implement a national ETD portal
  - Prototype implementation automatically harvests data from CBU and UNZA IRs
Open Access challenges (1/)

- Challenges specific to our experiences working with IRs
  - Some challenges are, however, generic

**Phiri L. “Research Visibility in the Global South”**
In: Proceedings of the 2nd IEEE International Conference in Information and Communication Technologies.
URL: http://dspace.unza.zm/handle/123456789/5723
Disproportionate output from faculty (1/2)

- Most of the scholarly output produced the UNZA can be deposited into the repository
  - OERs currently not catered for
- ETDs consistently ingested into UNZA IR
Disproportionate output from faculty (1/2)

- Most of the scholarly output produced the UNZA can be deposited into the repository
  - OERs currently not catered for
- ETDs consistently ingested into UNZA IR
Disproportionate output from faculty (2/2)

- Faculty generated research output currently not consistently ingested into IR
  - Lack of policy
  - Lack of awareness
Irregular ingestion of digital objects

- Ingestion of digital object irregular
  - Insufficient human resource
  - Non-implementation of self-archiving
Incorrect and missing metadata

- The quality of metadata is an issue, affecting searching
  - Missing and incorrect metadata elements
  - Lack of use of controlled vocabularies

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http://dspace.unza.zm
Potential viable solutions

Technology-centric
- Subject repositories
- Machine learning techniques to automatically classify digital objects
- Third-party tools and plugins
- Integration of controlled vocabularies

Human-centric
- Policy implementation
- Self-archiving
- User training and awareness
Subject Institutional Repositories

- Subject repositories aimed at decentralising IR usage
- Content can be synchronised both ways
Workflows for effective ingestion

● Exploration of effective submission workflow that involve multiple stakeholders
  ○ Integration of workflow into IR submission workflow to eliminate current manual process

“Multi-Stakeholder Approach for Effective Deposit of Repository Objects”
Angela Nyirenda, MA LIS (Current).
Automatic classification of digital objects

- Experimentation of machine learning techniques to automatically classify repository objects
  - Reduce work performed by staff responsible for ingestion of content

"Multi-faceted Automatic classification of Institutional repository digital objects"
Robert M’sendo, MSc Computer Science (Current).
Automatic classification of digital objects

- **98.1%**
  - ETD Type
  - 0.99—Precision
  - 0.75—Recall
  - 0.83—F-Score
  - ETD No. of Pages
  - Random Forests

- **81.1%**
  - ETD Collection
  - 0.82—Precision
  - 0.81—Recall
  - 0.81—F-Score
  - ETD Abstract
  - SGD Classifier

- **81.7%**
  - ETD Subject
  - 0.80—Precision
  - 0.77—Recall
  - 0.77—F-Score
  - Title+Abstract+MeSH
  - SGD Classifier
While technology plays a crucial role during the implementation of an Open Access strategy, human factors are the most difficult to handle […]. A good starting point is an Open Access policy.
Thank you for your time

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http://lis.unza.zm/~lightonphiri