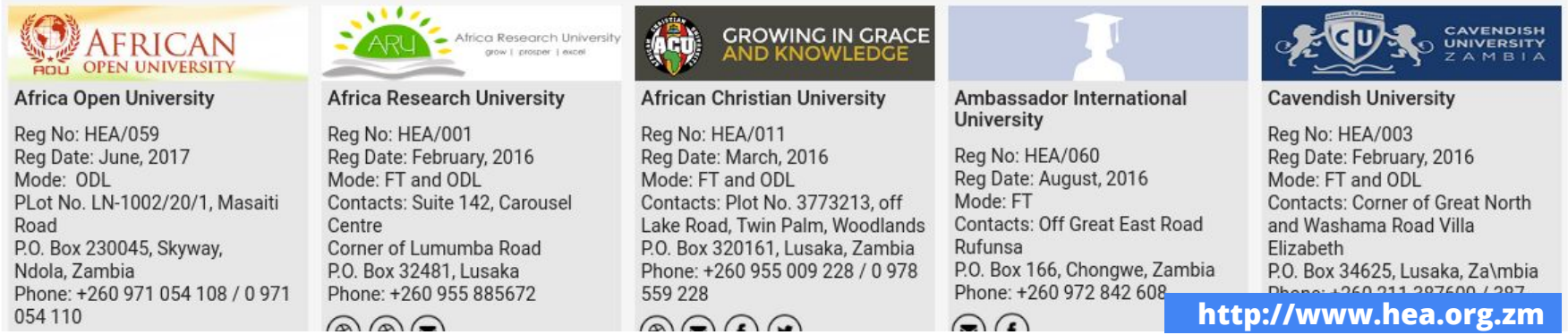
Research Visibility in the Global South: Towards Increased Online Visibility of Research in Zambia

Lighton Phiri <lighton.phiri@unza.zm>

Department of Library and Information Science
University of Zambia

University Ranking Committee Workshop | February 7, 2019 | Lusaka, Zambia

Introduction (1)



- **Zambia presently has six (6) public HEIs and 60 registered private HEIs. However, there is little or no online visibility of scholarly research output generated by these entities.**

Introduction (2)

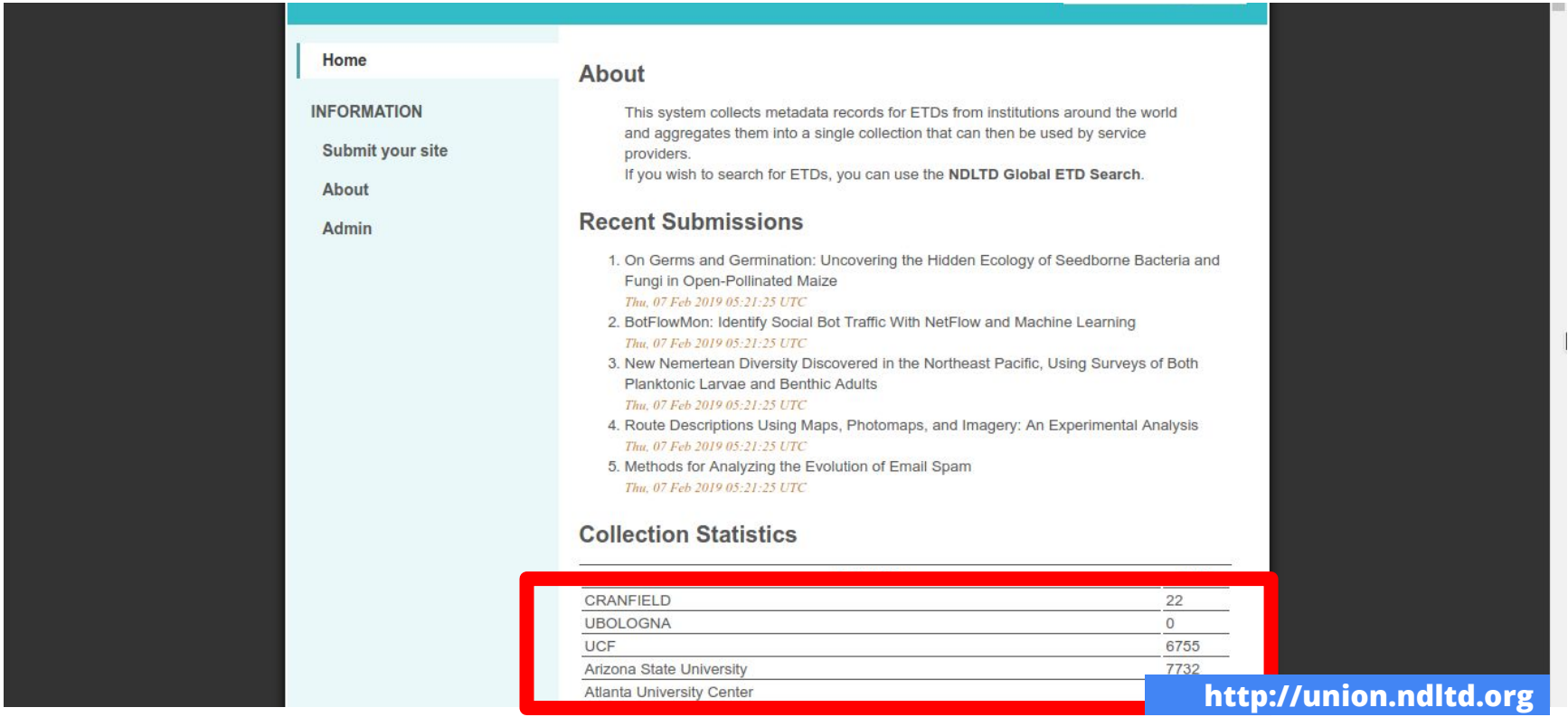
ranking	World Rank	University	Det.	Presence Rank*	Impact Rank*	Openness Rank*	Excellence Rank*
1	3395	University of Zambia	»	211	14760	3181	1874
2	5186	Copperbelt University	»	3962	13289	6396	4076
3	14381	Mulungushi University	»	12951	17509	7563	6008
4	17186	University of Lusaka	»	5166	16897	10778	6008
5	17472	Zambian Open University	»	20041	16142	10778	6008

http://www.webometrics.info

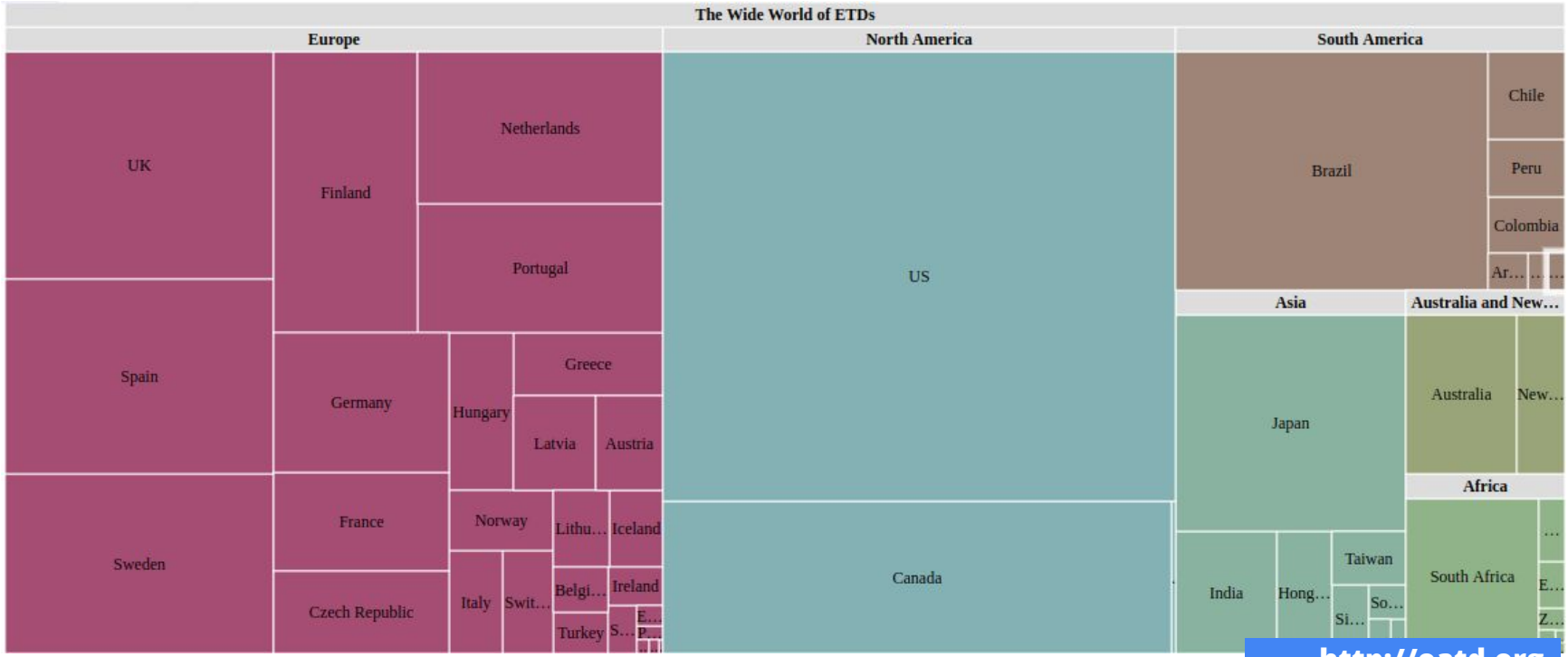
Research output is also key topic for Webometrics, but including not only formal (e-journals, repositories) publications but also informal scholarly communication. Web publication is cheaper, maintaining the high standards of quality of peer review processes. It could also reach much larger potential 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. I**f 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**.

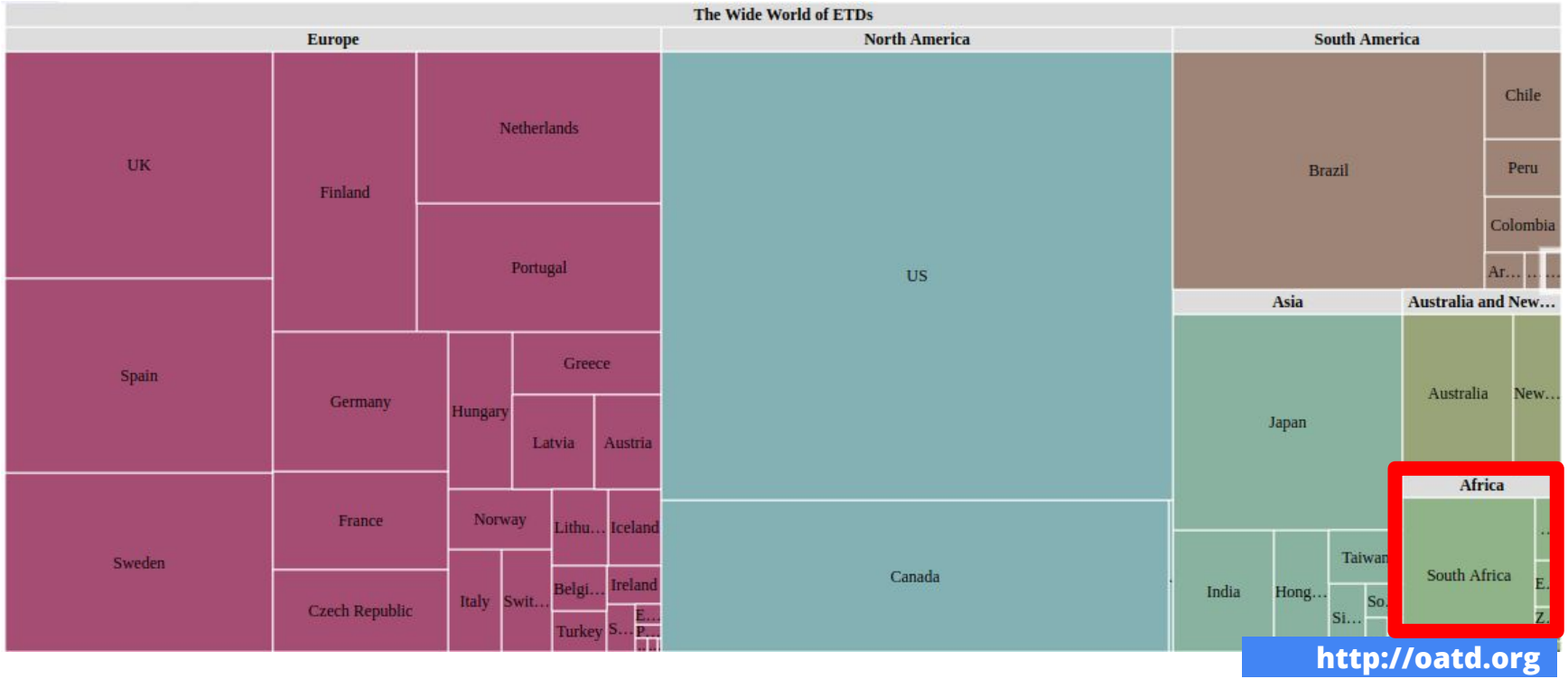
Introduction (3)



Introduction (4)



Introduction (4)



Introduction (5)

http://oatd.org

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http://oatd.org

Research Goals

1) Empirically determine online visibility of scholarly research output.
2) Identify appropriate tools and services for improved online visibility.

Approach and Methods

1) Content analysis of HEI IRs.
    - OAI-PMH protocol used to harvest metadata.
    - OAI-ORE protocol used to harvest bitstreams.

2) Tooling for increased visibility.
    - Open source platforms for effective. dissemination of content.

Content Analysis of HEI IRs (1)

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▼<header>
   <identifier>oai:dspace.cbu.ac.zm:123456789/65</identifier>
   <datestamp>2011-08-18T08:59:44Z</datestamp>
   <setSpec>hdl_123456789_23</setSpec>
 </header>
▼<metadata>
 ▼<oai_dc:dc xmlns:oai_dc="http://www.openarchives.org/OAI/2.0/oai_dc/" xmlns:dc="http:
  instance" xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/oai_dc/ http://www.
  ▼<dc:title>
     Customer service management in the retail banks in Zambia
   </dc:title>
   <dc:creator>Atanga, Muyenga</dc:creator>
   <dc:subject>Banks</dc:subject>
   <dc:subject>Retail banking</dc:subject>
   <dc:subject>MBA THESIS</dc:subject>
   <dc:subject>Customer service</dc:subject>
   <dc:description>v,116p.</dc:description>
   <dc:description>Copperbelt University, School of Business.</dc:description>
   <dc:date>2011-07-19T14:32:14Z</dc:date>
   <dc:date>2011-07-19T14:32:14Z</dc:date>
   <dc:date>2011-07-19</dc:da
   <dc:type>Thesis</dc:type>
```

http://dspace.cbu.ac.zm:8080/oai/request?verb=ListRecords&metadataPrefix=oai_dc

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   <dc:date>2011-07-19</dc:da
   <dc:type>Thesis</dc:type>
```

http://dspace.cbu.ac.zm:8080/oai/request?verb=ListRecords&metadataPrefix=oai_dc

Content Analysis of HEI IRs (2)

- **Step #1: Harvesting digital objects.**
  - OAI-PMH used to harvest metadata.
  - OAI-ORE used to harvest resources.
- **Step #2: Processing harvested objects.**
  - Metadata to identify structures.
  - Bitstreams to help classify ETDs.

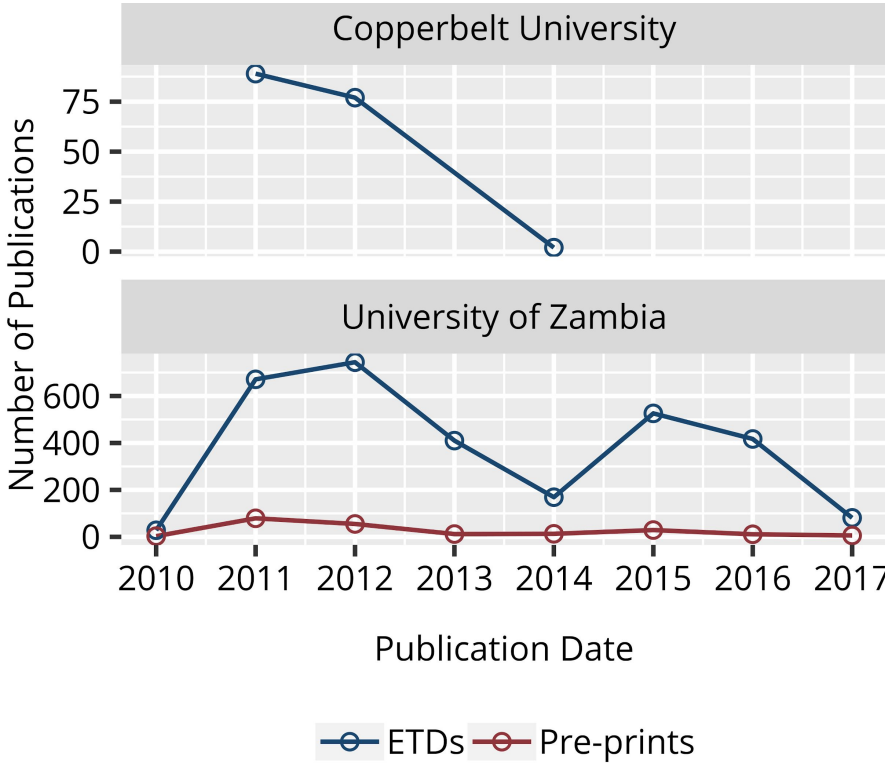
Content Analysis of HEI IRs (3)

1) Only two public HEIs in Zambia have IRs.
2) HEI IRs have noticeably low content.

Institution	Count
University of Zambia	4,863
Copperbelt University	168
Chalimbana University	—
Kwame Nkruma University	—
Mulungushi University	—
Mukuba University	—

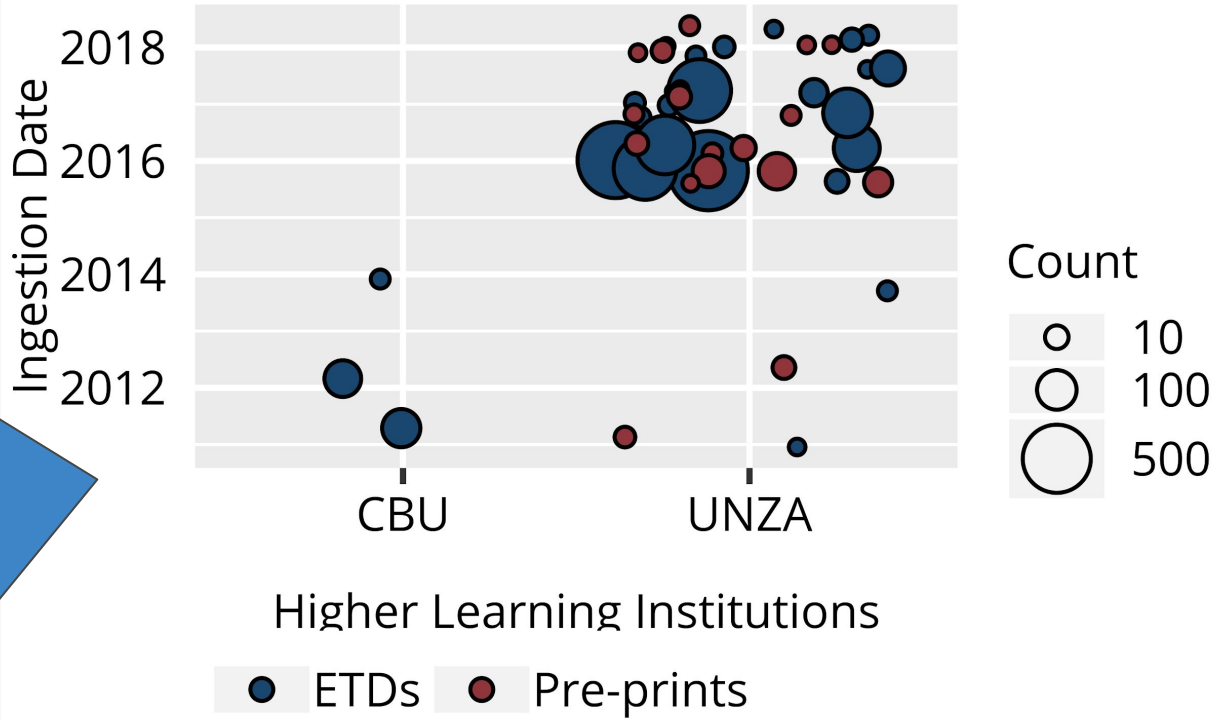
Content Analysis of HEI IRs (4)

1) CBU IR last updated in 2014.
2) UNZA IR not consistently updated.
3) Content ingested in batches in UNZA IR.
4) UNZA pre-print ingestion negligible.



Content Analysis of HEI IRs (5)

- **Batch ingestion of content in UNZA IR**
- **Ingestion of content conducted by Library.**



Content Analysis of HEI IRs (6)

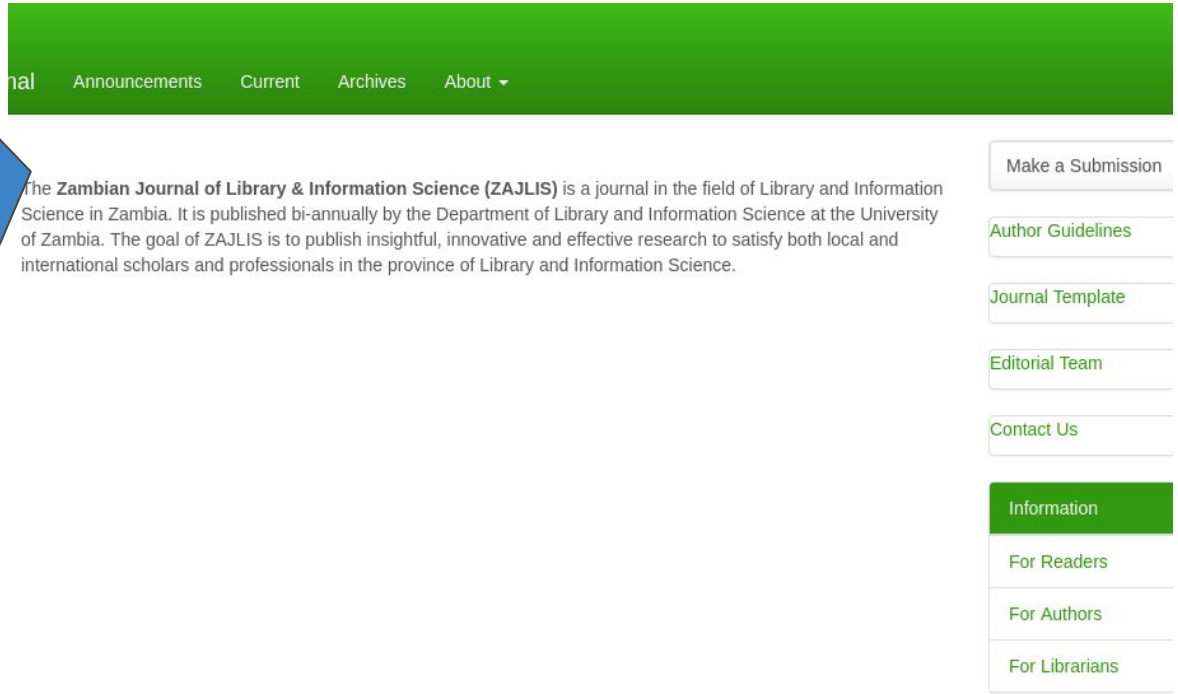
- **Quality of metadata.**
  - Lack of use of controlled vocabularies.
  - Missing metadata elements; only 38.66% of ETDs were classified into their respective types.
- **Submission workflows.**
  - Self-archiving is almost non-existent.
- **Born digital vs. digitised bitstreams.**
  - 5.6% of bitstreams are digitised.

Tools for Increased Visibility

1) Electronic journals.
2) Subject repositories.
3) Downstream aggregate services.

Electronic Journals (1)

None of the seven (7) official journals at UNZA are online.



https://zajlis.unza.zm

Electronic Journals (2)

Subject Institutional Repositories

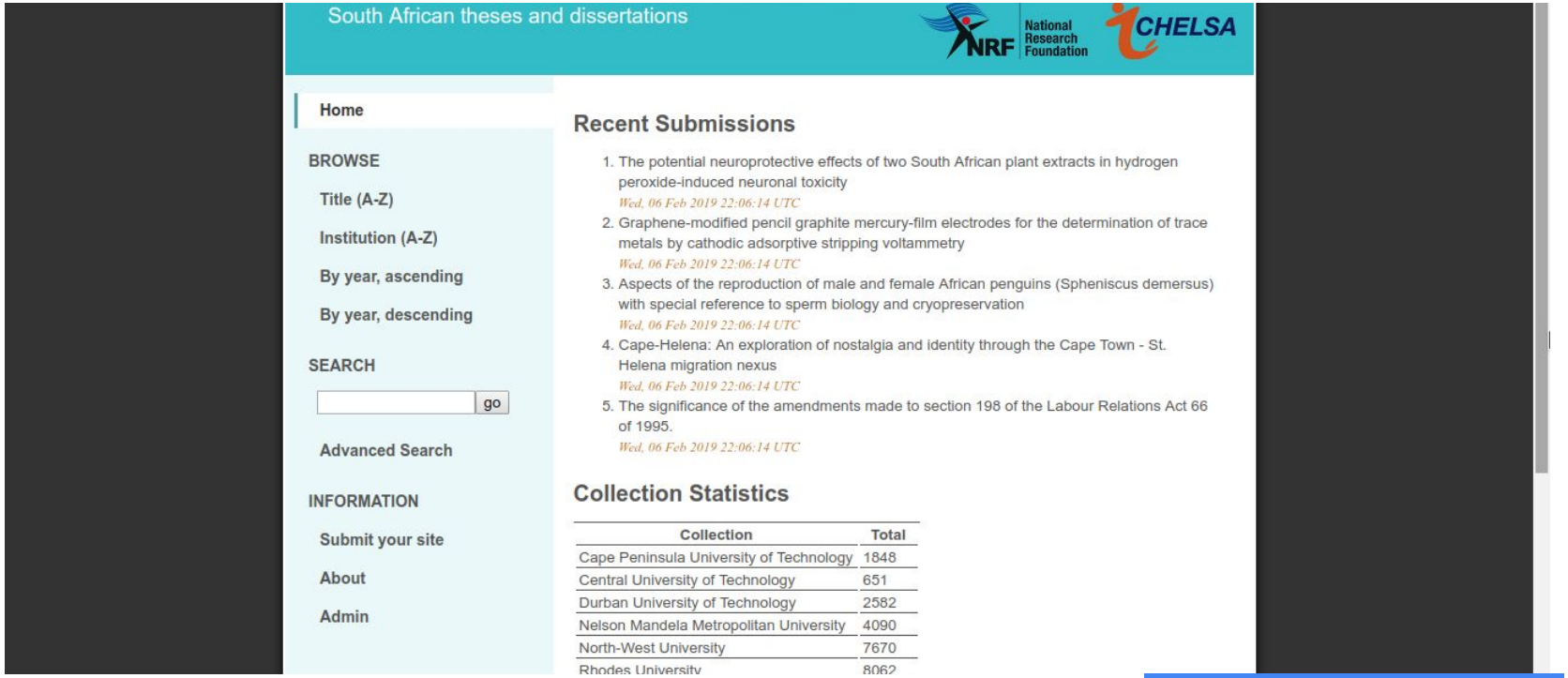
Subject repositories can potentially decentralise content submission.

http://lis.unza.zm:8081/archive

Feasibility of Using Subject Institutional Repositories (2018)

Mathews Mbewe, Mathews Mwewa, Moonga Habukali, Nandi Sikazindu & Nozyenji Mwale, BA LIS

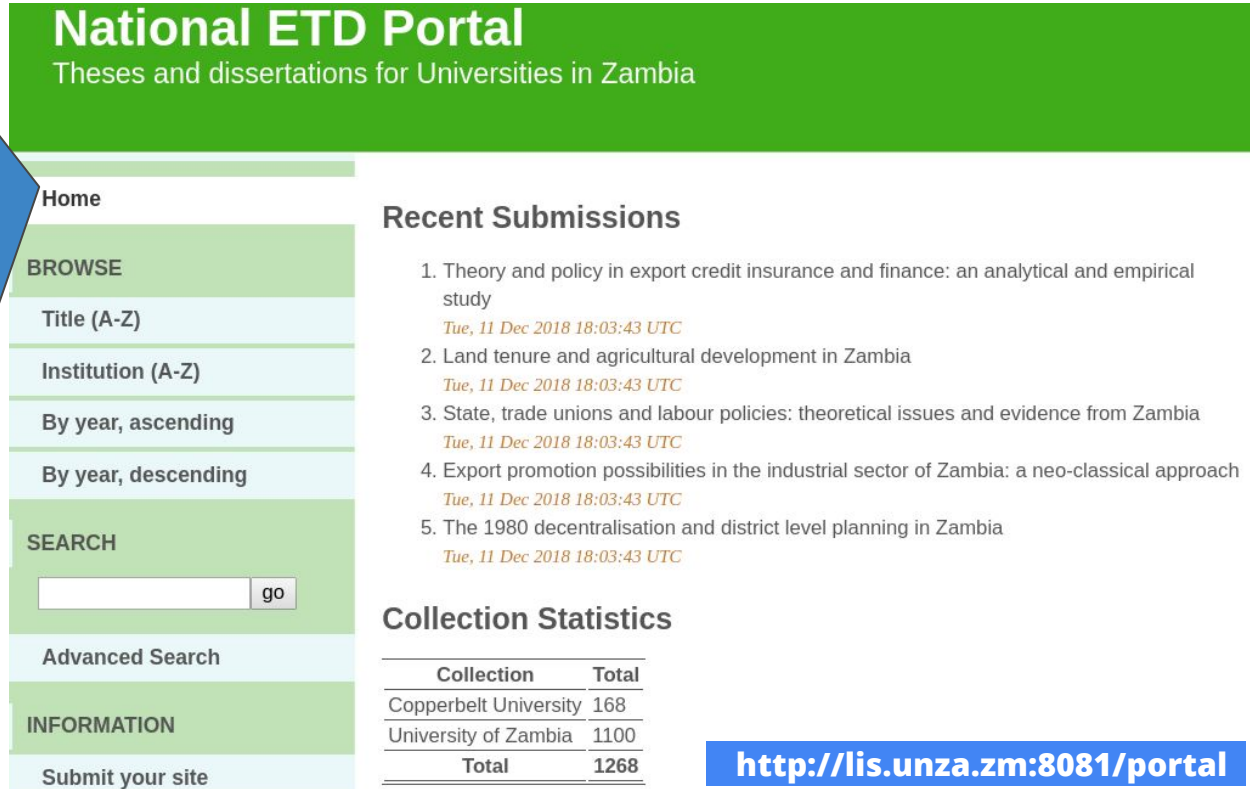
Downstream Aggregate Services



http://www.netd.ac.za

Downstream Aggregate Services

We are working towards setting up aggregate services.



http://lis.unza.zm:8081/portal

Conclusion

- **Summary of work done.**
  - Content analysis.
  - Open source tools.
- **Potential future work.**
  - Automatic classification of existing objects.
  - Challenges and perceptions of using IRs.
  - Browser plugins for effective workflows.
  - Techniques for capturing descriptive metadata.
  - Collaboration with key stakeholders.

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[2] C. Lagoze, H. Van de Sompel, “The open archives initiative: building a low-barrier interoperability framework”
DOI: 10.1145/379437.379449

[3] J. Willinsky, “Open Journal Systems”
DOI: 10.1108/07378830510636300

Questions?
Comments?
Thoughts?

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