Building distributed downstream services using OAI-PMH

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Outline

• Introduction
• Data Preservation
• Digital Libraries
• Institutional Repositories
• OAI-PMH Fundamentals
• Case Study: ETD Portal
• Summary
Introduction (1)

UCT Centre in ICT for Development

http://ict4d.cs.uct.ac.za
digital libraries laboratory @ uct.cs

Mission and Overview

The Digital Libraries Laboratory conducts research and provides support for information management problems with particular emphasis on the poor countries of the world with their associated unique constraints, such as cultural differences, limited Internet bandwidth and limited access to skilled staff. Our activities are research-focused, but include some advocacy, training and consulting. Our work is orientated towards the goal of making all forms of information (heritage, research, education, etc.) more accessible to all people.

For completeness, these pages also reflect all digital library activities within the CS department pre-2008, including those conducted within the AIM, CVC and HPC laboratories, and work conducted by Hussein Suleman before joining UCT.

As of 2013, the DL laboratory is part of the Centre for ICT for Development. Students, projects and publications listed are typically related to either ICT4D, Digital Libraries or at the intersection of the 2 areas.

As of 2015, Maria Keet and her students have joined the DL laboratory, with a focus on multilingualism and African languages.

Contact Hussein if you have any queries.
The destruction of the Great Library of Alexandria

Alexandria, one of the greatest cities of the ancient world, was founded by Alexander the Great after his conquest of Egypt in 332 BC. After the death of Alexander in Babylon in 323 BC, Egypt fell under the lot of one of his lieutenants, Ptolemy. It was under Ptolemy that the newly founded Alexandria...
Data Preservation (2)

The University of Zambia Website 10 years ago [...]
Digital Libraries (1)

• A Digital Library is a collection of digital objects.
• A Digital Library has services that facilitate interaction with digital objects.
  • Access to digital objects; storage and preservation.; manipulation of digital objects.
• A Digital Library has a wide range of users that interact with digital objects.
• A Digital Library can be viewed as an interconnection of networked and stored-based information systems.
Digital Libraries (2)

- Digital Library System (DLS) is an information system used to store digital objects, manage digital objects and, additionally, facilitate access to the objects.
Digital Libraries (3)

- DLS can be viewed as comprising of three sublayers.
  - User interface sublayer.
  - Service sublayer.
  - Storage sublayer.
• User interface sublayer is used to access digital objects.
• User interaction involves human beings.
• Machine interaction involves other machines.
Service sublayer consists of features for accessing and manipulating the objects.
- Ingestion services
- Information discovery services.
- Object management services.
Storage sublayer consists of technologies for facilitating the long-term preservation of digital objects.

- Digital objects are composed of bitstreams and metadata
- Bitstreams are stored along-side metadata.
Welcome to the University of Zambia Research Repository Online

This service, being maintained by the University Library, increases the visibility of UNZA's research; help reach a worldwide audience through exposure to search engines such as Google and begins the process of digitally preserving the University's intellectual output. For further details about this Institutional Repository and open access please see University Library website.

Communities in UNZA Repository

Select a community to browse its collections.

African Digital Health Library (ADHL) - Zambia [40]
The African Digital Health Library (ADHL), Zambia node, makes available health related content ranging from theses, dissertations, and Ministry of Health reports from Zambia.

Agricultural Sciences [70]
AGRIC

Education [63]
EDU
Welcome to the Copperbelt University Institutional Repository (CBUSpace)

The Copperbelt University Institutional Repository is a full text open access database, established to bring out and increase visibility of the intellectual output of the University.

Search

Enter some text in the box below to search DSpace.

Communities in DSpace

Choose a community to browse its collections.

- Directorate of Distance Education and Open Learning
- Miscellaneous
- School of Built Environment
- School of Business
- School of Engineering
- School of Graduate Studies
- School of Mathematics & Natural Sciences
- School of Medicine

http://dspace.cbu.ac.zm:8080/jspui
Machine-to-Machine Interoperability via OAI-PMH

- Interoperability between different repositories is facilitated by the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH).
- Data provider exposes data.
- Service provider harvest data.
OAI-PMH Verbs (1)

- OAI-PMH has a total of six verbs available as Web services.
  - Identify
  - List of Sets
  - List of Records
  - List of Metadata Formats
### Repository Information

<table>
<thead>
<tr>
<th>Repository Name</th>
<th>The University of Zambia Institutional Repository</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Mail Contact</td>
<td><a href="mailto:dspace@unza.zm">dspace@unza.zm</a></td>
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<tr>
<td>Repository identifier</td>
<td>dspace.unza.zm</td>
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</tr>
<tr>
<td>Date Granularity</td>
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</tr>
<tr>
<td>Deletion Mode</td>
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</tr>
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</table>

## OAI-PMH Verbs (3)

**DSpace OAI-PMH Data Provider**  

**Response Date**: 2019-06-21 10:24:38

### List of Sets

<table>
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<tr>
<th>Set Name</th>
<th>URI</th>
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<tbody>
<tr>
<td>Agricultural Sciences</td>
<td>[com_123456789_5087]</td>
</tr>
<tr>
<td>Education</td>
<td>[com_123456789_1]</td>
</tr>
<tr>
<td>Engineering</td>
<td>[com_123456789_14]</td>
</tr>
</tbody>
</table>

**Results fetched**: 0 - 100 of 193

**Records**  

**Identifiers**
List of Records

Results fetched 0 - 100 of 4867

Identifier: oai:dspace.unza.zm:123456789/4153
Last Modified: 2015-06-09 12:48:34

Sets
Metadata

http://dspace.unza.zm:8080/oai/request?verb=ListSets
OAI-PMH Verbs (5)

Response Date 2018-06-21 15:26:46

List of Identifiers

Results fetched 0 - 100 of 4867

Identifier oai:dspace.unza.zm:1234567890123 Last Modified 2016-06-09 12:46:34

View Details

Sets

Identifier oai:dspace.unza.zm:1234567890123 Last Modified 2016-06-09 10:16:03

View Details

### List of Metadata Formats

**Response Date**: 2018-06-21 16:27:23

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<thead>
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<th>List Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**ukstd_dc**

- **Namespace**: http://naca.central.cranfield.ac.uk/ethos-osa/2.0/
- **Schema**: http://naca.central.cranfield.ac.uk/ethos-osa/2.0/ukstd_dc.xsd

**qdc**

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Advanced research and scholarship. Theses and dissertations, free to find, free to use.

Search keywords from titles, author names, abstracts, subjects...
Search

Recent Additions

See all of this week's new additions.

- *Depth Dependent Roles of Methane, Ammonia and Hydrogen Sulfide in the Oxygen Consumption of Base Mine Lake, the Athabasca Oil Sands Pit Lake*. Morris, Patrick. McMaster University.

- *A Research on the Development and Integration of Board Game Into 3rd Grade Number and Operation Instruction*. Wang, Hsiang-Ni. NSYSU.

- *The Self-Percieved Grief Competency of Masters Level Therapists*. DeVries, Emily Rae. California State University – San Bernardino.


Numerous downstream services have been implemented by making use of OAI-PMH

About OATD.org

OATD.org aims to be the best possible resource for finding open access graduate theses and dissertations published around the world. Metadata (information about the theses) comes from over 1100 colleges, universities, and research institutions. OATD currently indexes 4,499,436 theses and dissertations.

About OATD (our FAQ).

Visual OATD.org

We're happy to present several data visualizations to give an overall sense of the OATD.org collection by county of publication, i.e.

https://oatd.org
OAI-PMH Data Providers and Service Providers (2)

Open Access Theses and Dissertations

Search keywords from titles, author names, abstracts, subjects...
Search

Advanced search options

Sorted by: relevance · author · university · date | New search

Search history

You searched for University of Zambia. Showing records 1 – 30 of 614 total matches.

Did you want to search for theses published by a college or university?
Try this search: publisher:University of Zambia | Go

   URL: http://hdl.handle.net/123456789/968
   The purpose of this thesis is to analyze the development of theatre in Zambia with special emphasis to the period between 1950 and 1975. The...

Subjects/Keywords: Theatre – Zambia; Performing Arts – Zambia

Record Details · Similar Records · Cite · Share


OATD harvests ETD metadata from universities around the world, include The UNZA

https://oatd.org
An Analysis of Theatre in Zambia

The purpose of this thesis is to analyze the development of theatre in Zambia with special emphasis to the period between 1950 and 1975. The methodology is mainly descriptive with material based on the author's personal experience, interviews, observations, correspondence, and on printed material such as journals, newspapers, official reports and books. The first chapter examines the nature of Zambia's traditional performing arts, the changes these arts have under-gone because of urbanization, and the role of individual performing artists who have created new traditional dances and dance-dramas. The second chapter deals with the establishment of the European theatre movement, little theatres and playhouses in the urban area and the formation of the Northern Rhodesia Drama Association. It also deals with the activities of the first African drama clubs and the multiracial Waddington Players who challenged the all-white Northern Rhodesia Drama Association and the Government's racial segregation laws. The third chapter analyzes Zambia's cultural revolution and the role of the Department of Cultural Services and the National Dance Troupe in the development of Zambian theatre. The fourth chapter examines the development of the University of Zambia's Chikwawa Theatre and the debate between its advocates and the expatriate-dominated Theatre Association of Zambia concerning the state of theatre in Zambia. This chapter also deals with various projects by Chikwawa Theatre, such as the travelling theatre movement, children's theatre and drama workshops. The fifth and concluding chapter surveys the efforts of the expatriate Theatre Association of Zambia to integrate Chikwawa Theatre into the expatriate theatre movement and the role of television drama in the development of theatre in Zambian.
Recent Submissions

1. Gender-based violence: strengthening the role and scope of prehospital emergency care by promoting theory, policy and clinical praxis  
   *Thu, 21 Jan 2018 10:01:35 UTC*

2. Knowledge-building: educational studies in Legitimation Code Theory  
   *Thu, 21 Jan 2018 10:01:15 UTC*

3. The effectiveness of restorative justice in preventing children’s participation in armed conflict in North Kivu Province, the Democratic Republic of Congo : a participatory action research  
   *Thu, 21 Jan 2018 10:00:24 UTC*

4. The knowledge, attitudes and perceptions of health care professionals at the Mahalapye District Hospital about the World Spine Care model in the Central District of Botswana  
   *Thu, 21 Jan 2018 10:00:24 UTC*

5. The effect of low intensity laser therapy on post needling soreness in trigger point 2 of the upper trapezius muscle  
   *Thu, 21 Jan 2018 10:00:24 UTC*

Collection Statistics

<table>
<thead>
<tr>
<th>Collection</th>
<th>Total</th>
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<tbody>
<tr>
<td>Cape Peninsula University of Technology</td>
<td>1773</td>
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<tr>
<td>Central University of Technology</td>
<td>651</td>
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<tr>
<td>North-West University</td>
<td>7670</td>
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<tr>
<td>Rhodes University</td>
<td>789</td>
</tr>
</tbody>
</table>

http://www.netd.ac.za
ETD Portal

ETD Portal Software is a scalable repository service application for creating repository federated services. It is developed and maintained by the Digital Libraries Laboratory at the University of Cape Town. There are presently two known live deployment instances: The South African National ETD Portal and the global NDLTD Union Archive. For more information, please visit http://idi.cs.uct.ac.za/projects/etd_portal

Downloads

The latest release of ETD Portal can be downloaded from the Official code repository.

Documentation / Installation

The latest ETD Portal Installation instructions are in the code repository, under the docs directory.

A video demonstration of how to setup and configure ETD Portal is available here.

ETD Portal requires a relational database (only MySQL is presently supported) and a servlet container (only Tomcat 6 has been successfully tested) in order to function. More information about these and all other prerequisites tools and services can be found in the installation instructions above.

Contributors

ETD Portal is developed and maintained by the Digital Libraries Laboratory. There is no centralized development or support team, however, students affiliated with the lab periodically help improve the software and documentation.

The list of all known contributors to ETD Portal software can be found on the project page.

Getting Help

For any major issues, please contact Hussein Suleman.

http://simba.cs.uct.ac.za/indefero
ETD Portal Software (3)

The ETD (Electronic Thesis and Dissertations) repository and portal software enables the creation of federated services by leveraging the OAI-PMH protocol.

Add topics

- 80 commits
- 1 branch
- 3 releases
- 1 contributor

Branch: master  New pull request  Create new file  Upload files  Find file  Clone or download

- OAI-PMH  Configuration files  Updated Makefiles  4 years ago
- RSS  Configuration files  Updated Makefiles  4 years ago
- docs  [Documentation] Minor fix to v1.2 documentation  2 years ago
- harvester  [MySQL database] Invalid default value for  2 years ago
- installation  [MySQL database] Resolved disconnection issue  4 years ago
- portal  [MySQL database] Invalid default value for  2 years ago
- scripts  [Git generic] Directory cleanup  2 years ago
- summary  [Configuration files] Updated Makefiles  4 years ago

http://github.com/lightonphiri

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