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)

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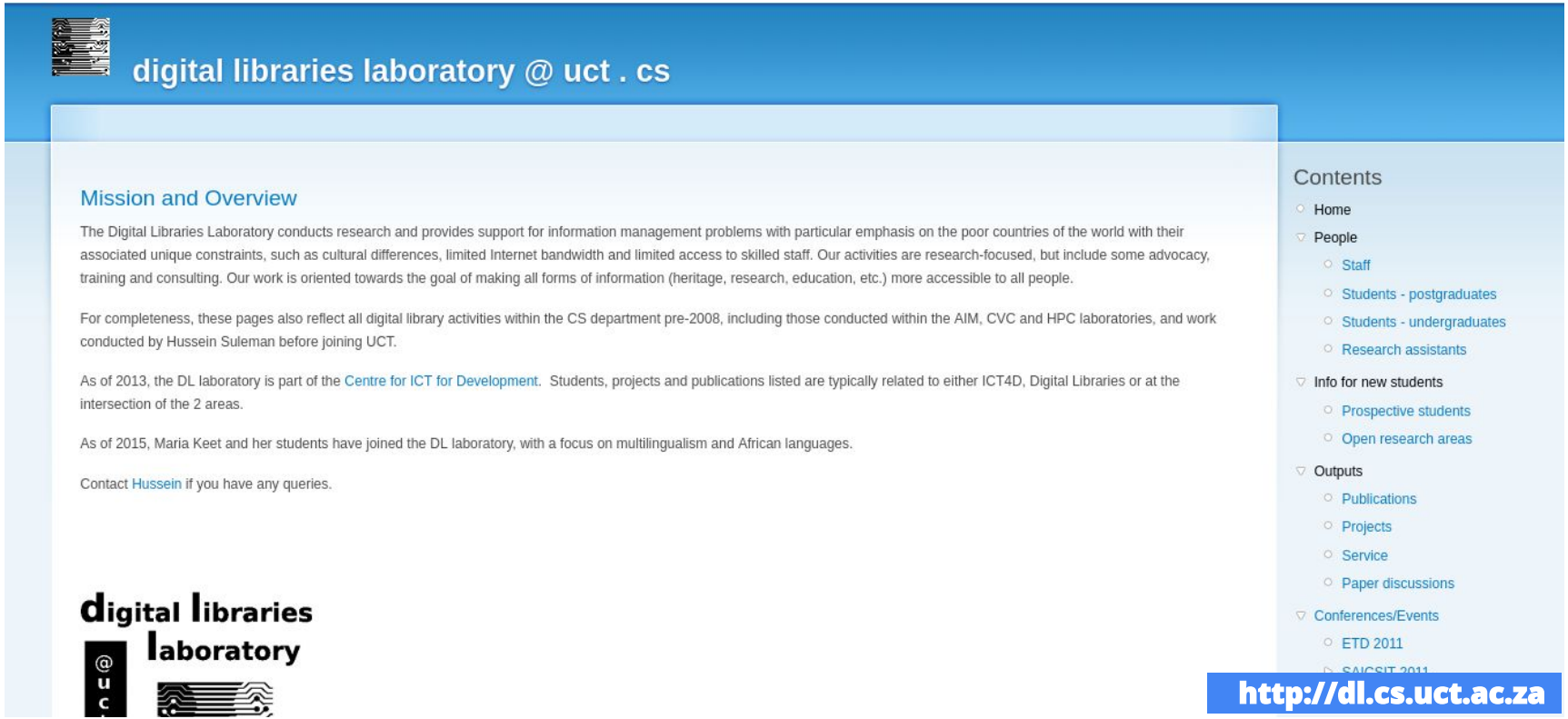
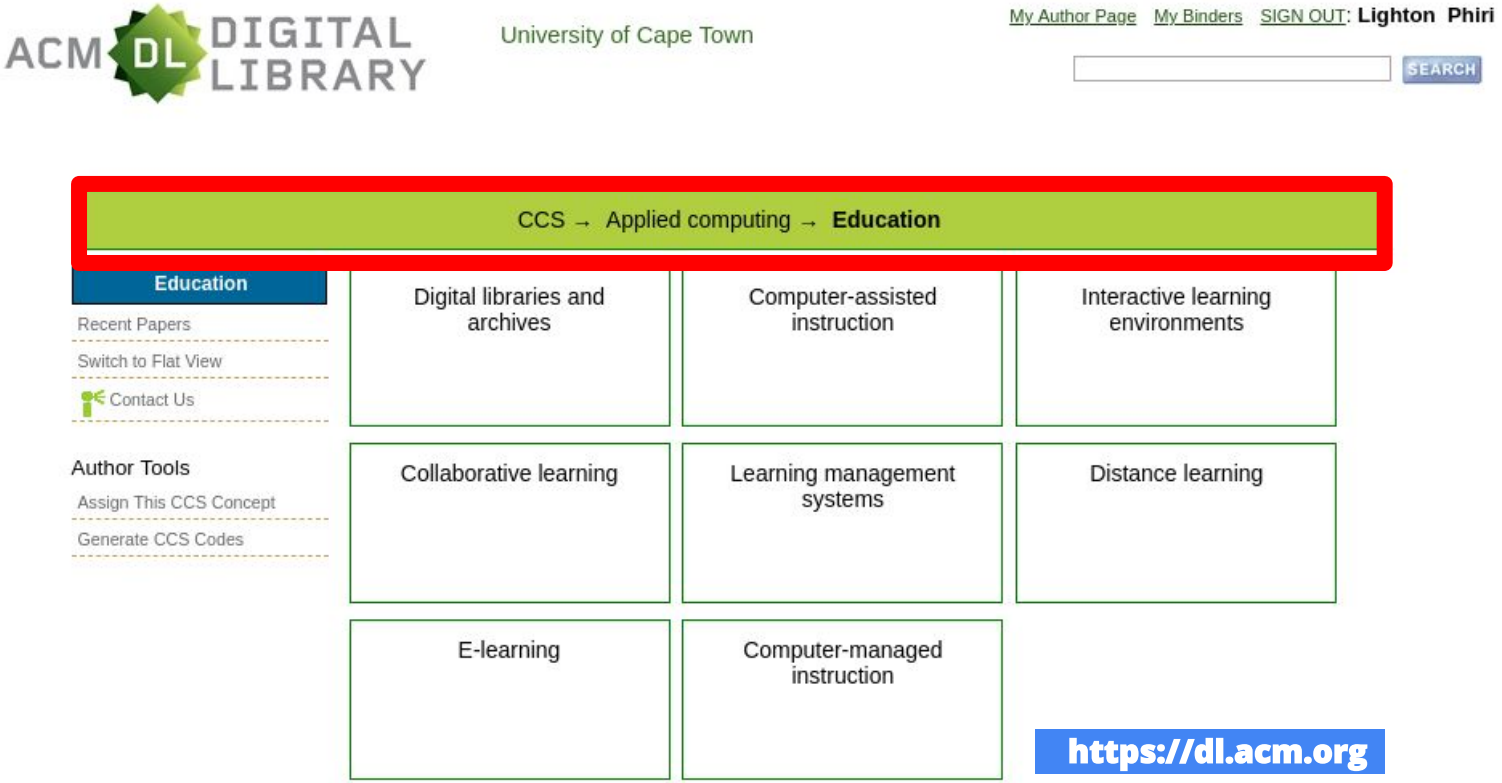
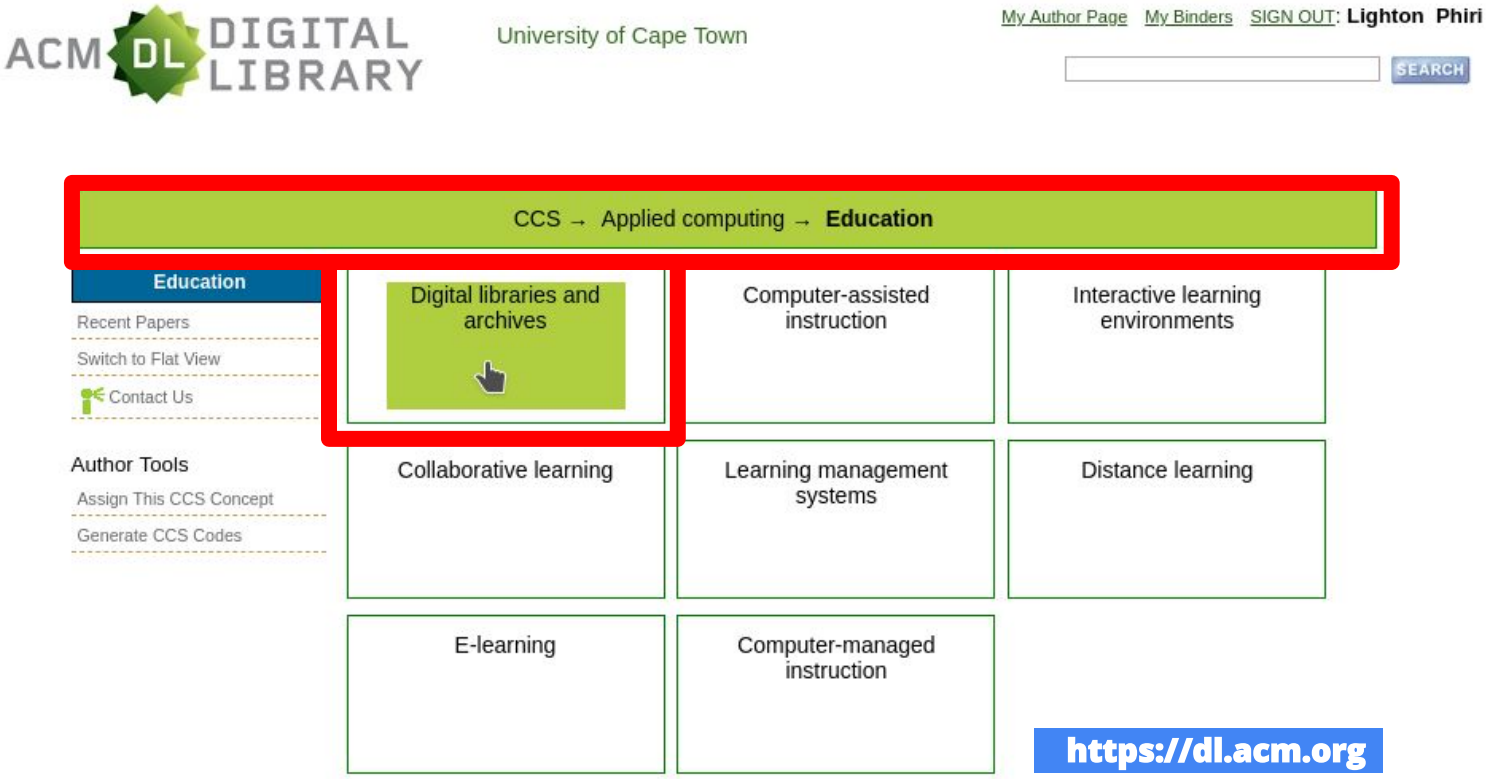
Introduction (2)



Introduction (3)

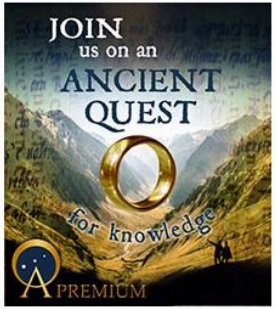


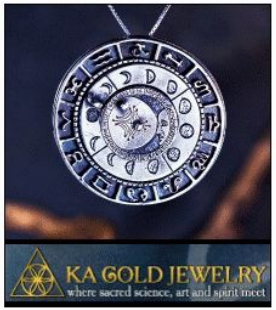
Introduction (4)



Data Preservation (1)

16.7k Shares
16.5k
16.5k
26
digg





12 MAY, 2014 - 12:42 DHWTY

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 the lot of one of his lieutenants, Ptolemy. It was under Ptolemy that the newly-founded Alexandria

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Data Preservation (2)

The University of Zambia Website 10 years ago [...]

The University of Zambia

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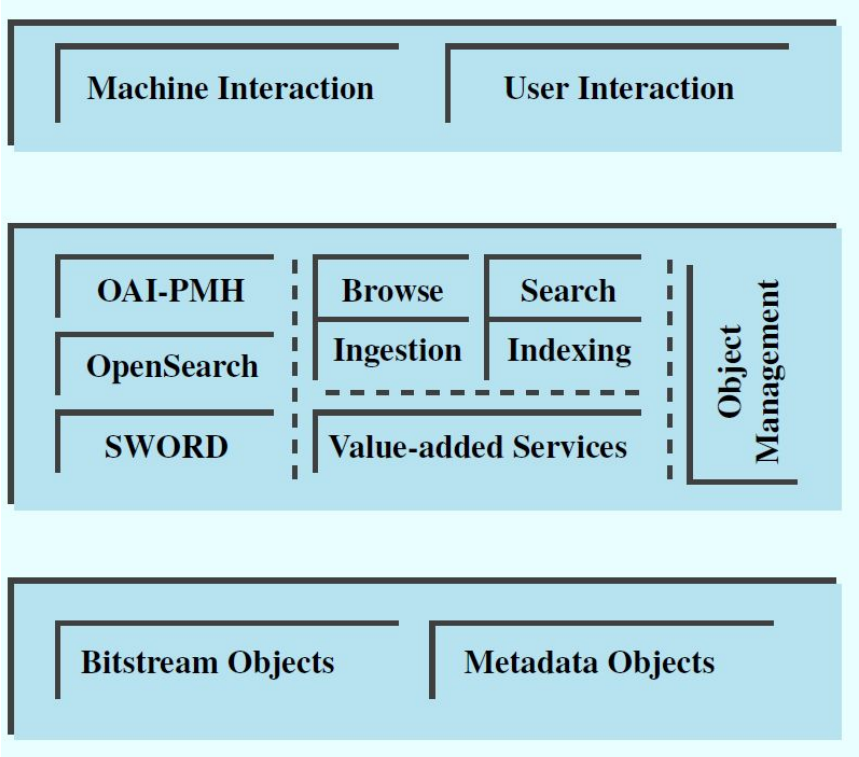
Digital Libraries (1)

- 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.

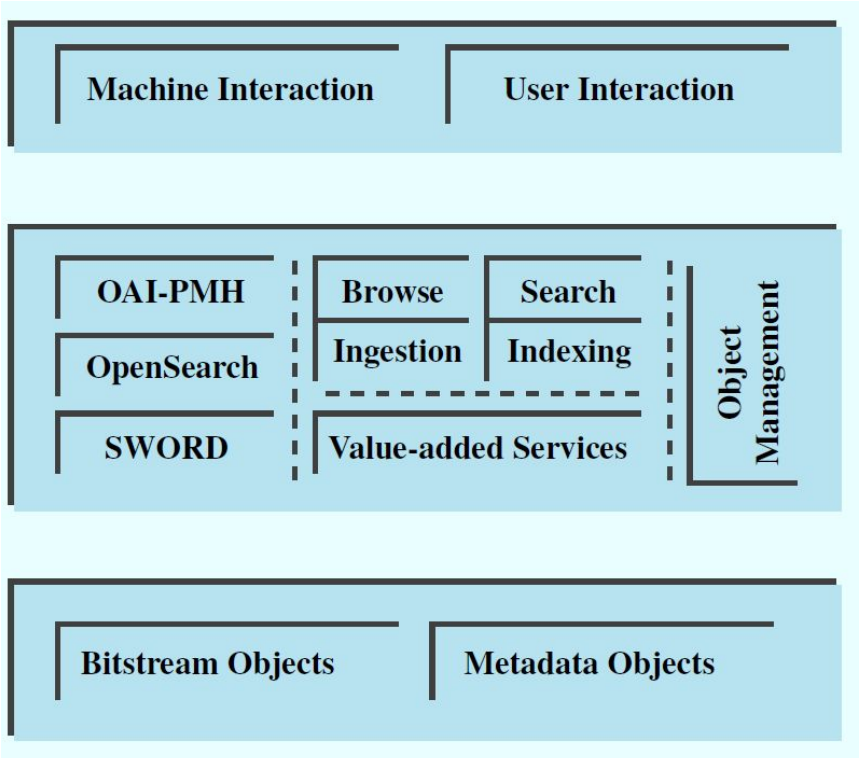
Digital Libraries (2)

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



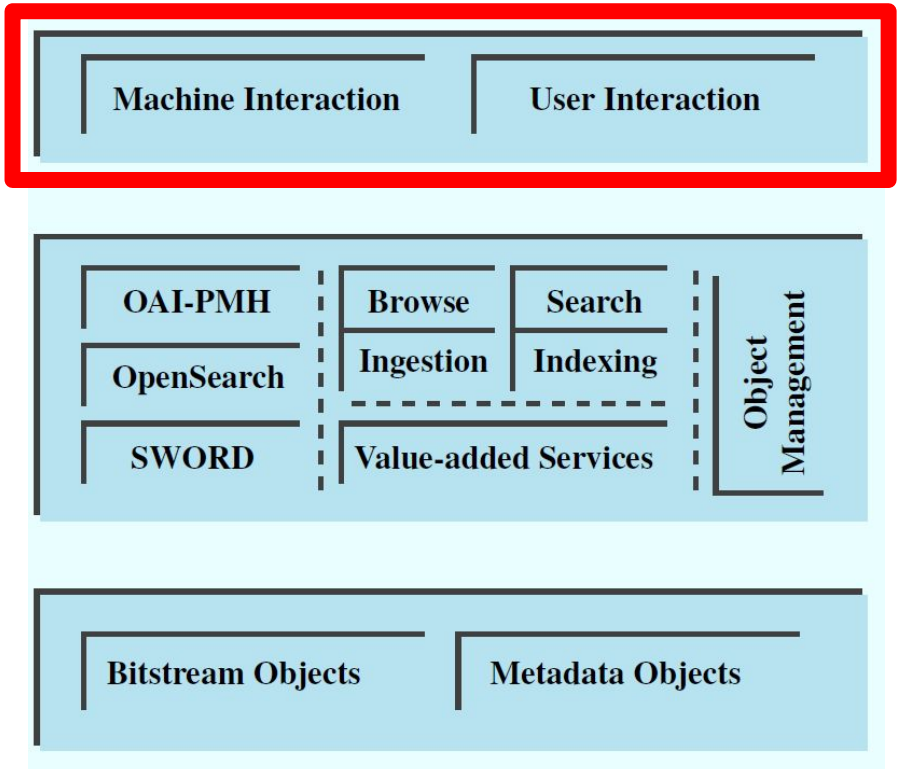
Digital Libraries (3)

- DLS can be viewed as comprising of three sublayers.
  - User interface sublayer.
  - Service sublayer.
  - Storage sublayer.



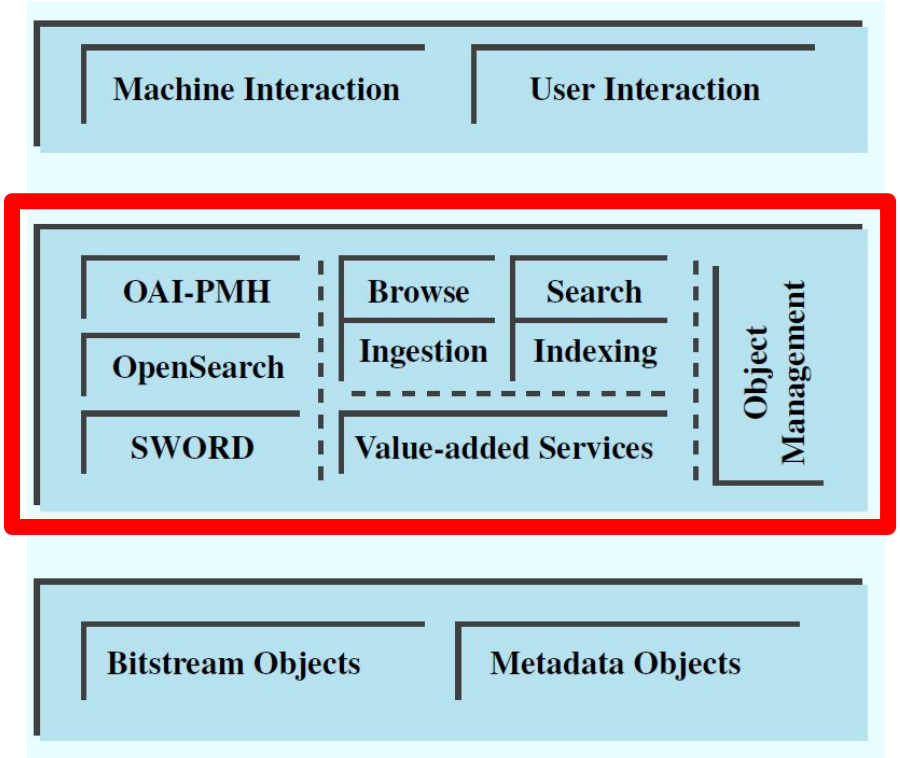
Digital Libraries (4)

- User interface sublayer is used to access digital objects.
  - User interaction involves human beings.
  - Machine interaction involves other machines.



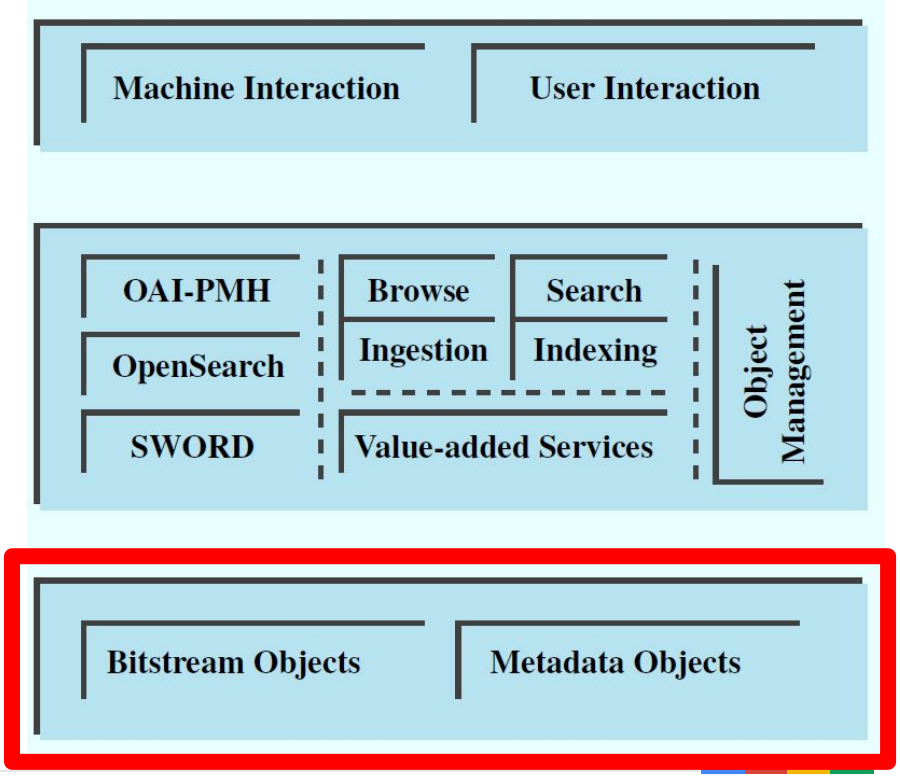
Digital Libraries (5)

- Service sublayer consists of features for accessing and manipulating the objects.
  - Ingestion services
  - Information discovery services.
  - Object management services.



Digital Libraries (6)

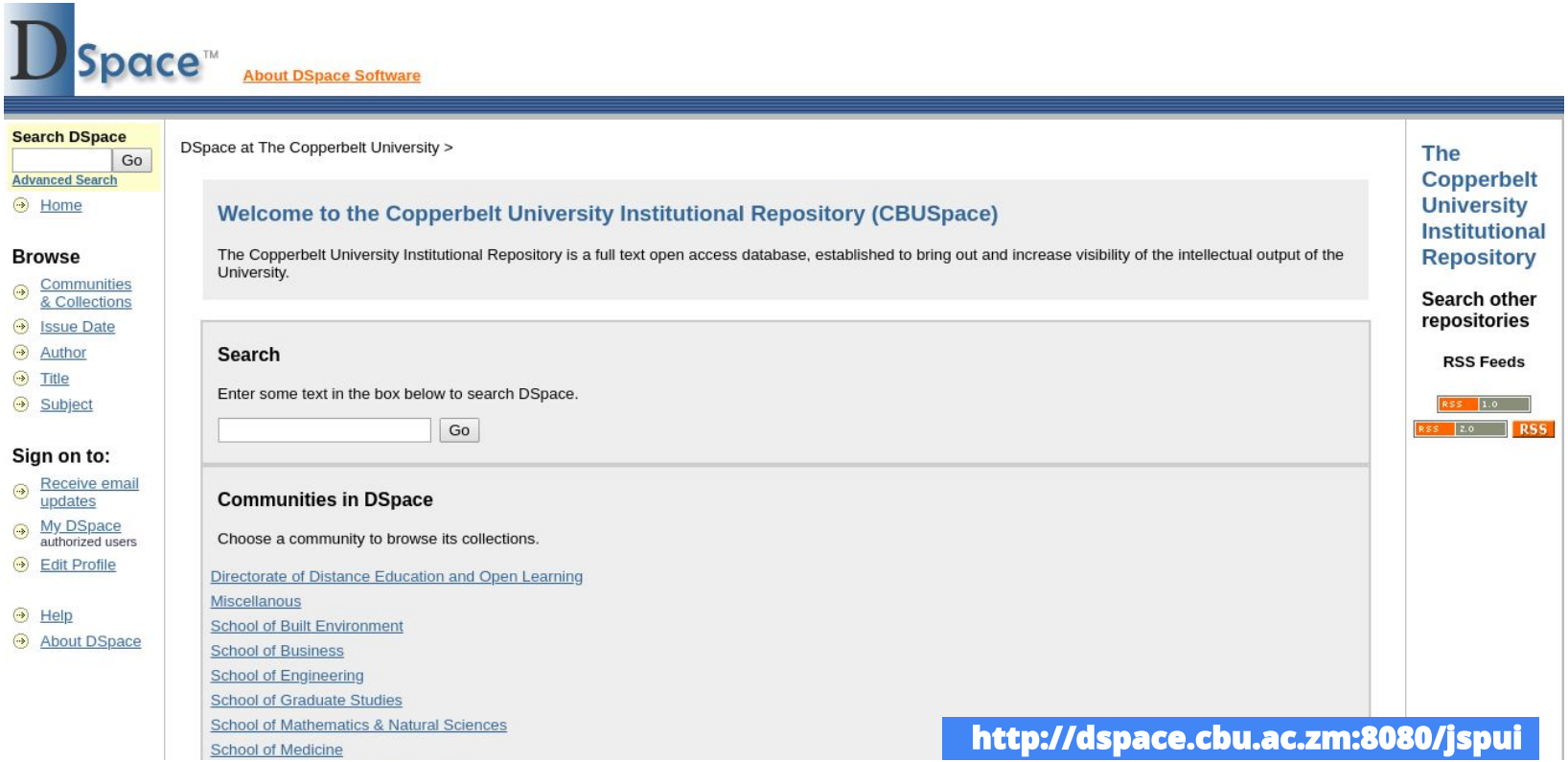
- Storage sublayer consists of technologies for facilitating the long-term preservation of digital objects.
  - Digital objects are composed of bitstreams and metadata
  - Bitstreams are stored along-side metadata.



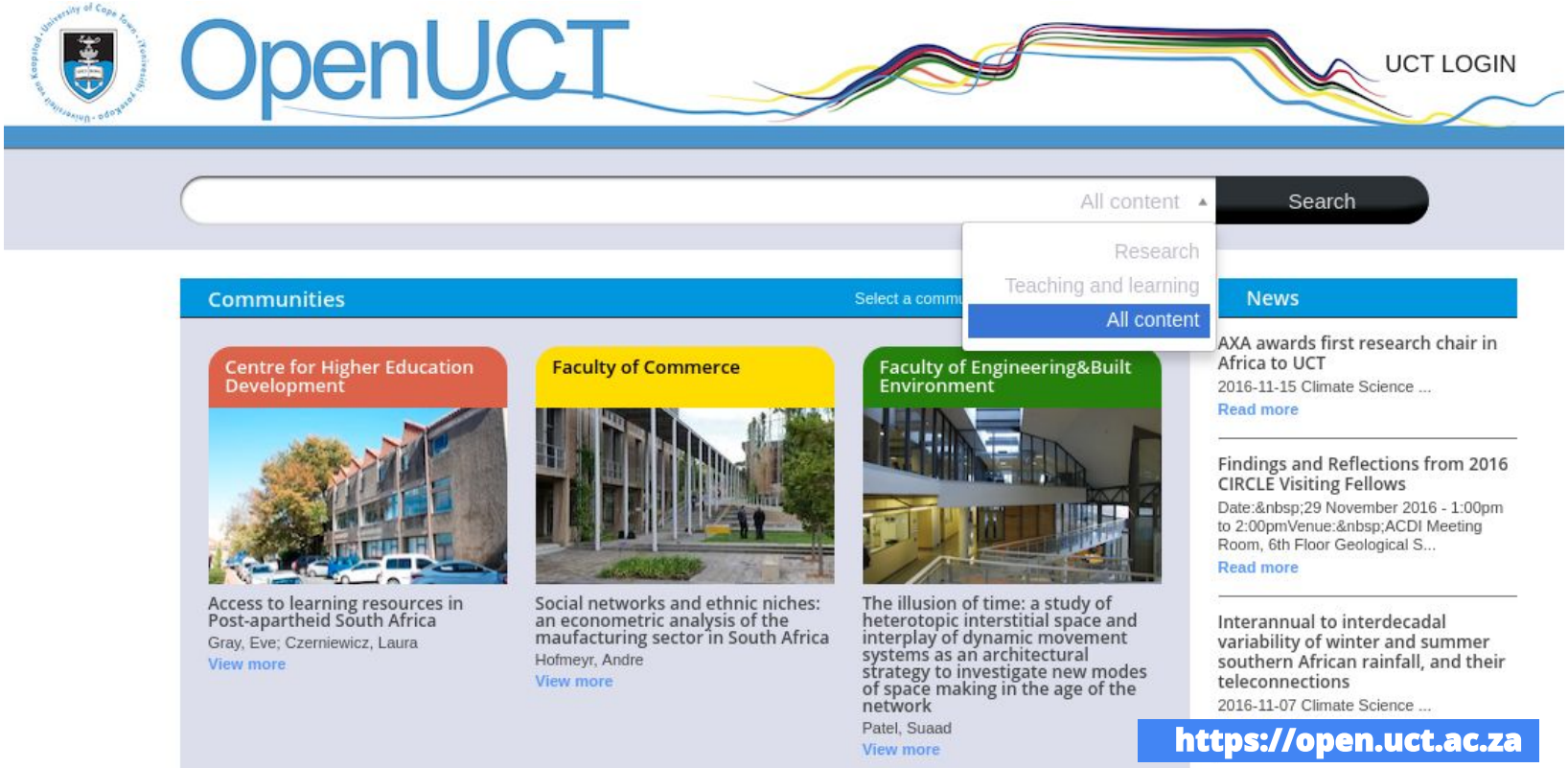
Institutional Repositories (1)

http://dspace.unza.zm:8080/xmlui

Institutional Repositories (2)



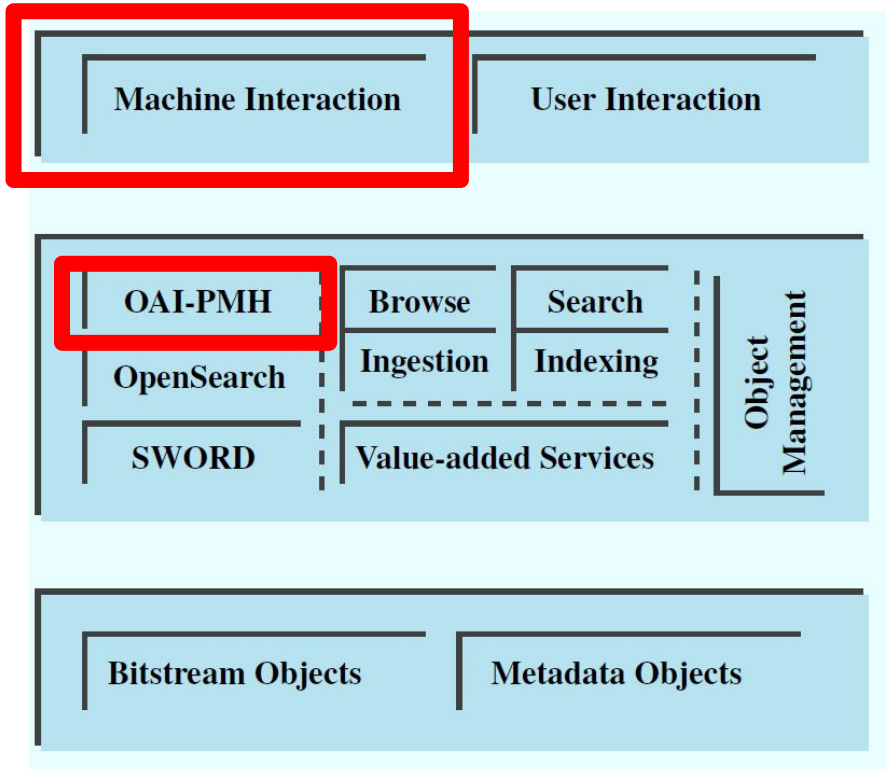
Institutional Repositories (3)



https://open.uct.ac.za

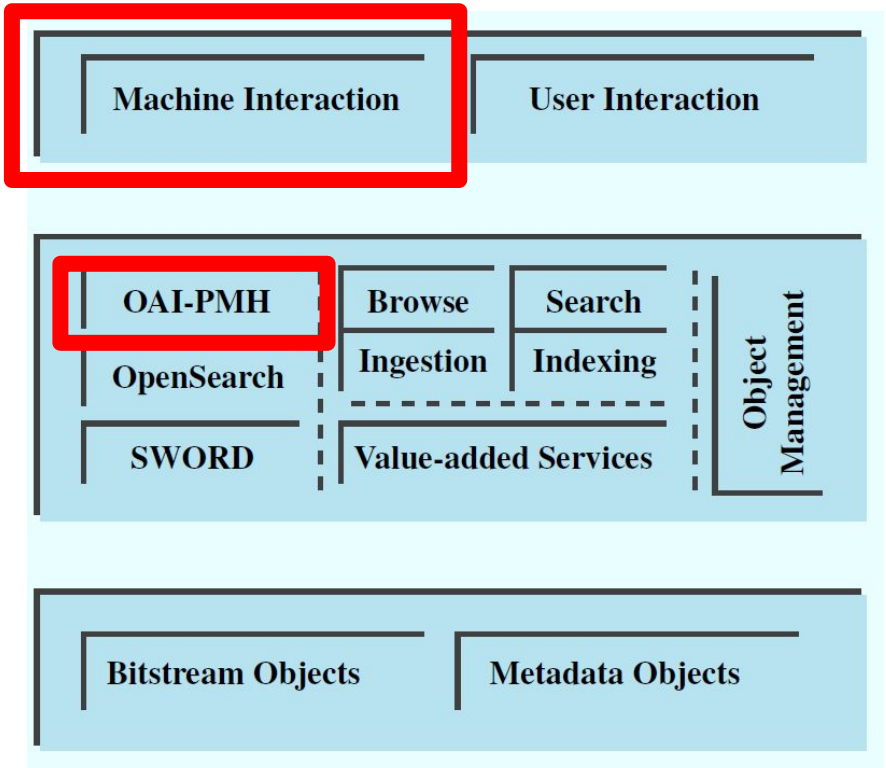
Machine-to-Machine Interoperability via OAI-PMH

- 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



OAI-PMH Verbs (2)

DSpace OAI-PMH Data Provider

Identify | Sets | Records | Identifiers | Metadata Formats

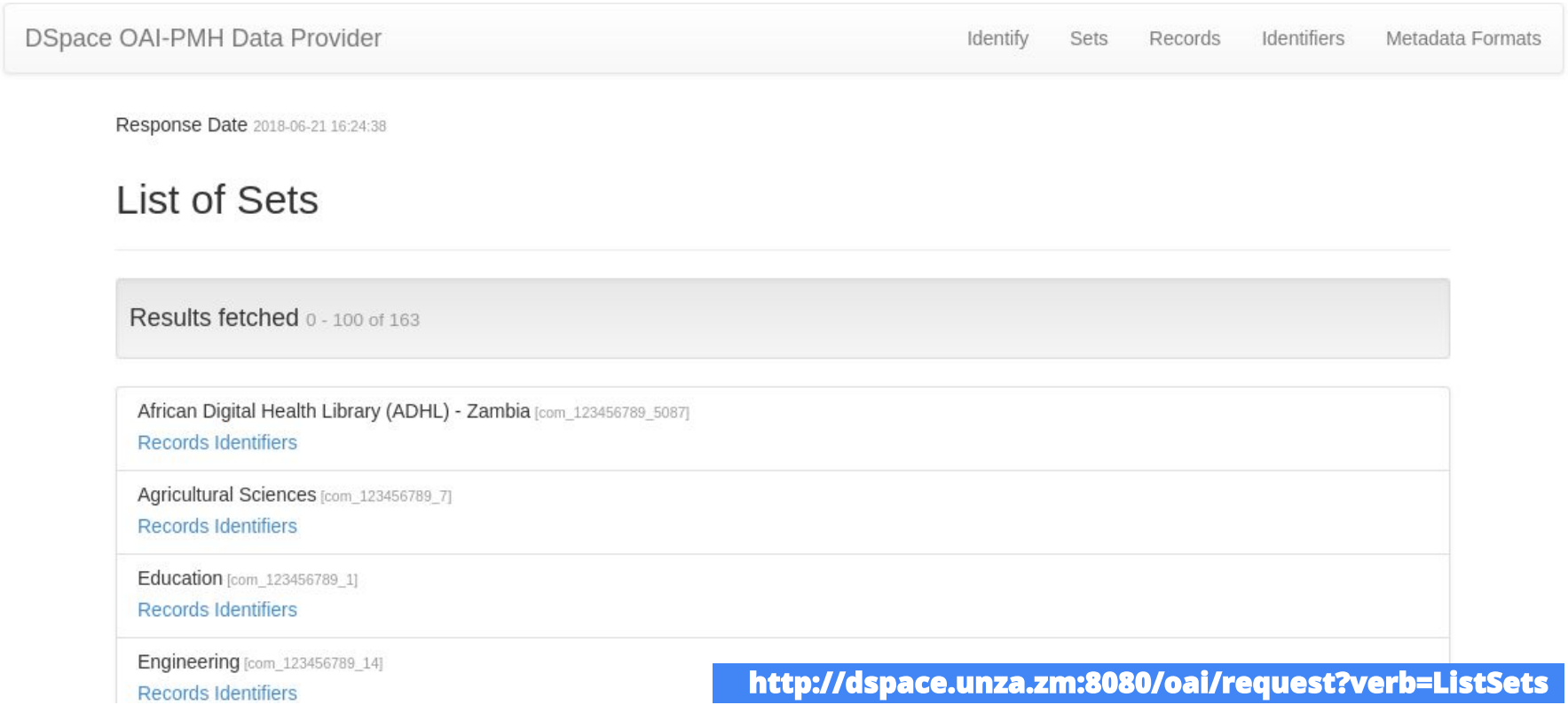
Response Date 2018-06-21 16:23:10

Repository Information

Repository Name	The University of Zambia Institutional Repository
E-Mail Contact	dspace@unza.zm
Repository identifier	dspace.unza.zm
Sample identifier	oai:dspace.unza.zm:123456789/1234
Protocol Version	2.0
Earliest Registered Date	2010-08-09 16:06:42
Date Granularity	YYYY-MM-DD hh:mm:ss
Deletion Mode	transient

http://dspace.unza.zm:8080/oai/request?verb=Identify

OAI-PMH Verbs (3)



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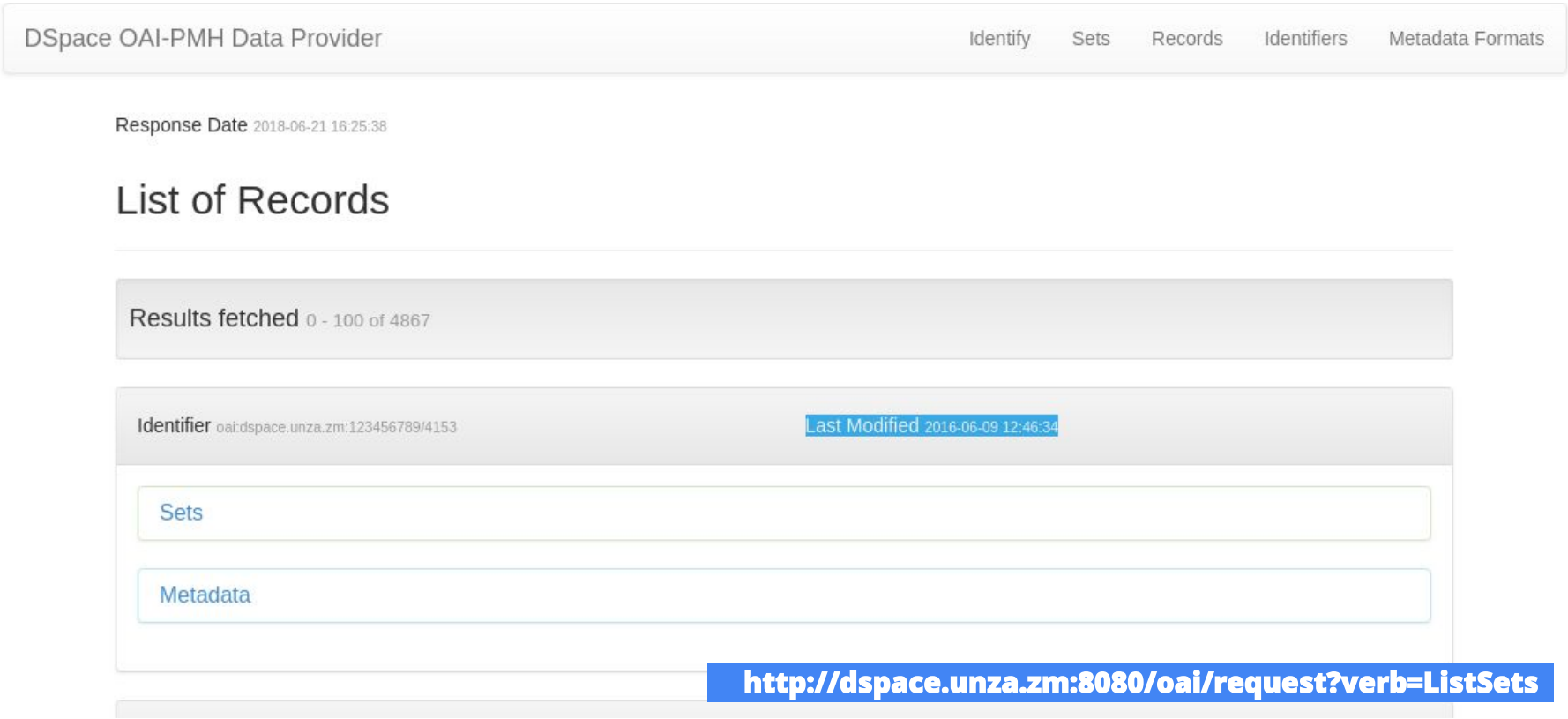
OAI-PMH Verbs (4)



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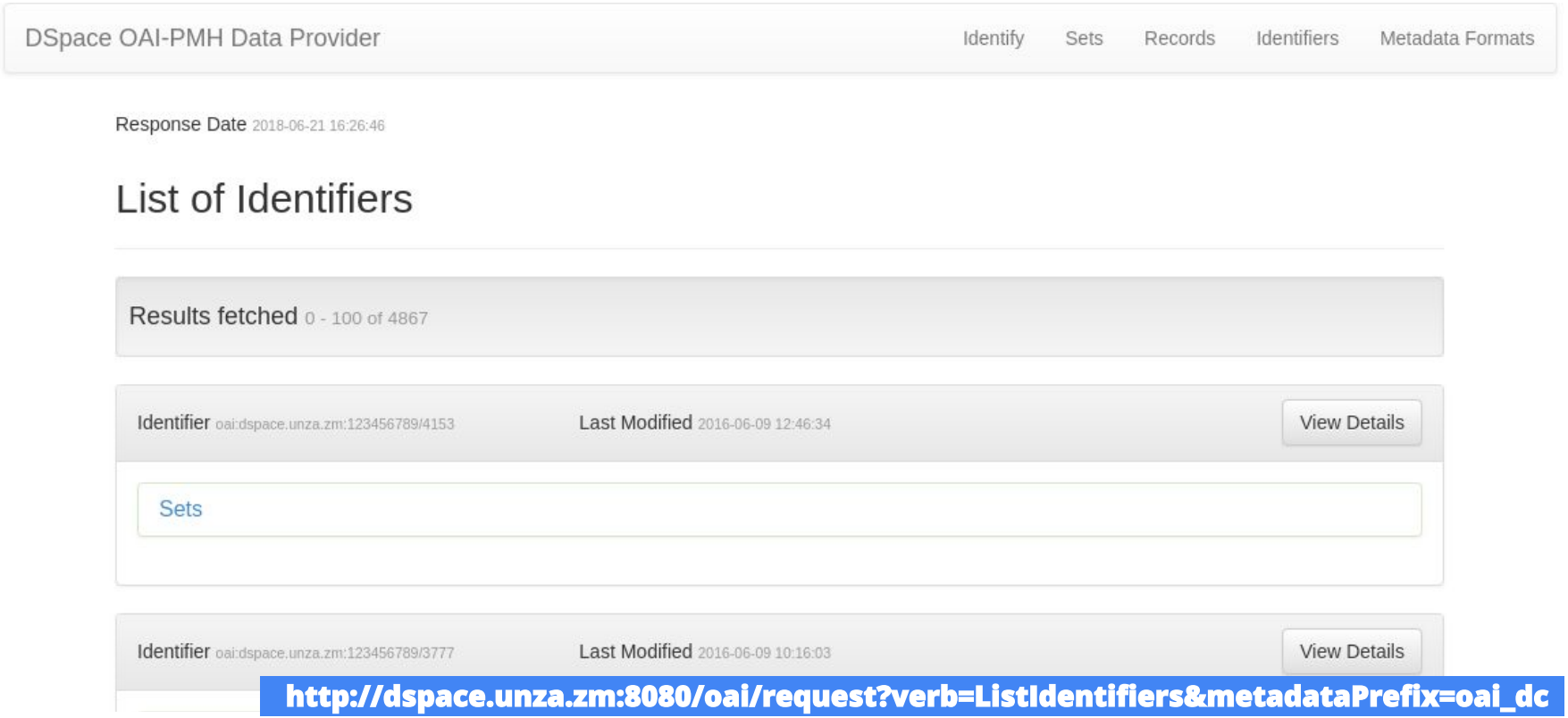
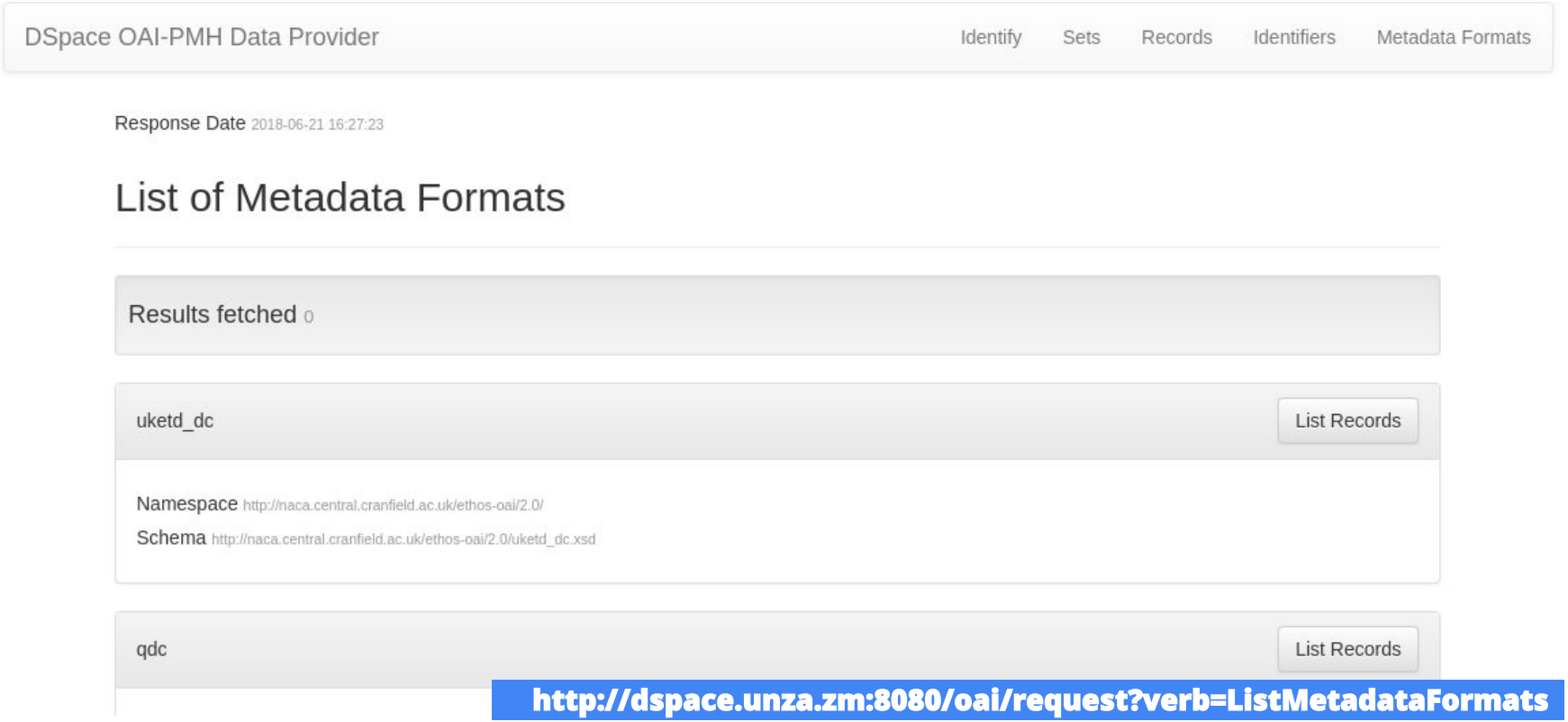
OAI-PMH Verbs (5)



http://dspace.unza.zm:8080/oai/request?verb=ListIdentifiers&metadataPrefix=oai_dc

OAI-PMH Verbs (6)



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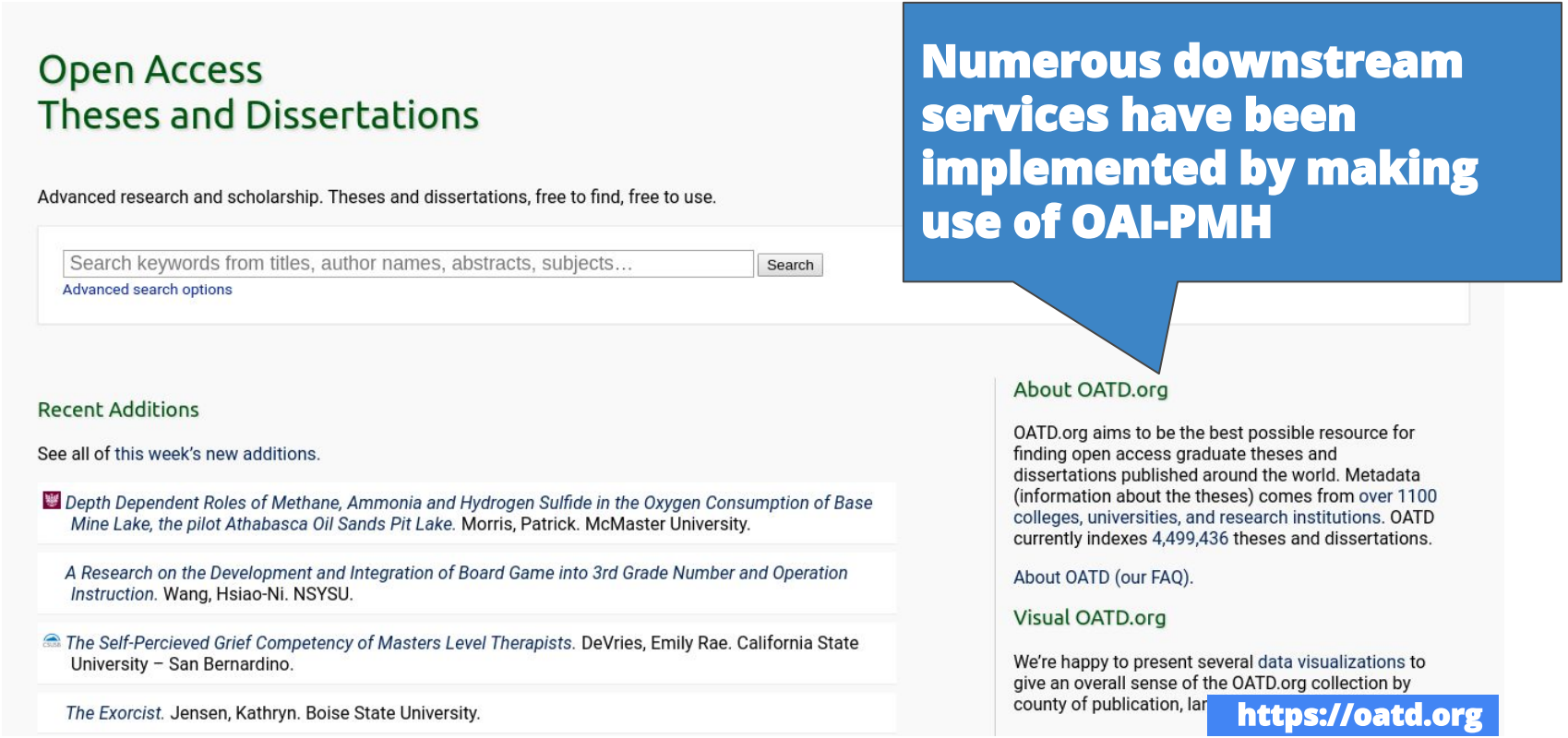
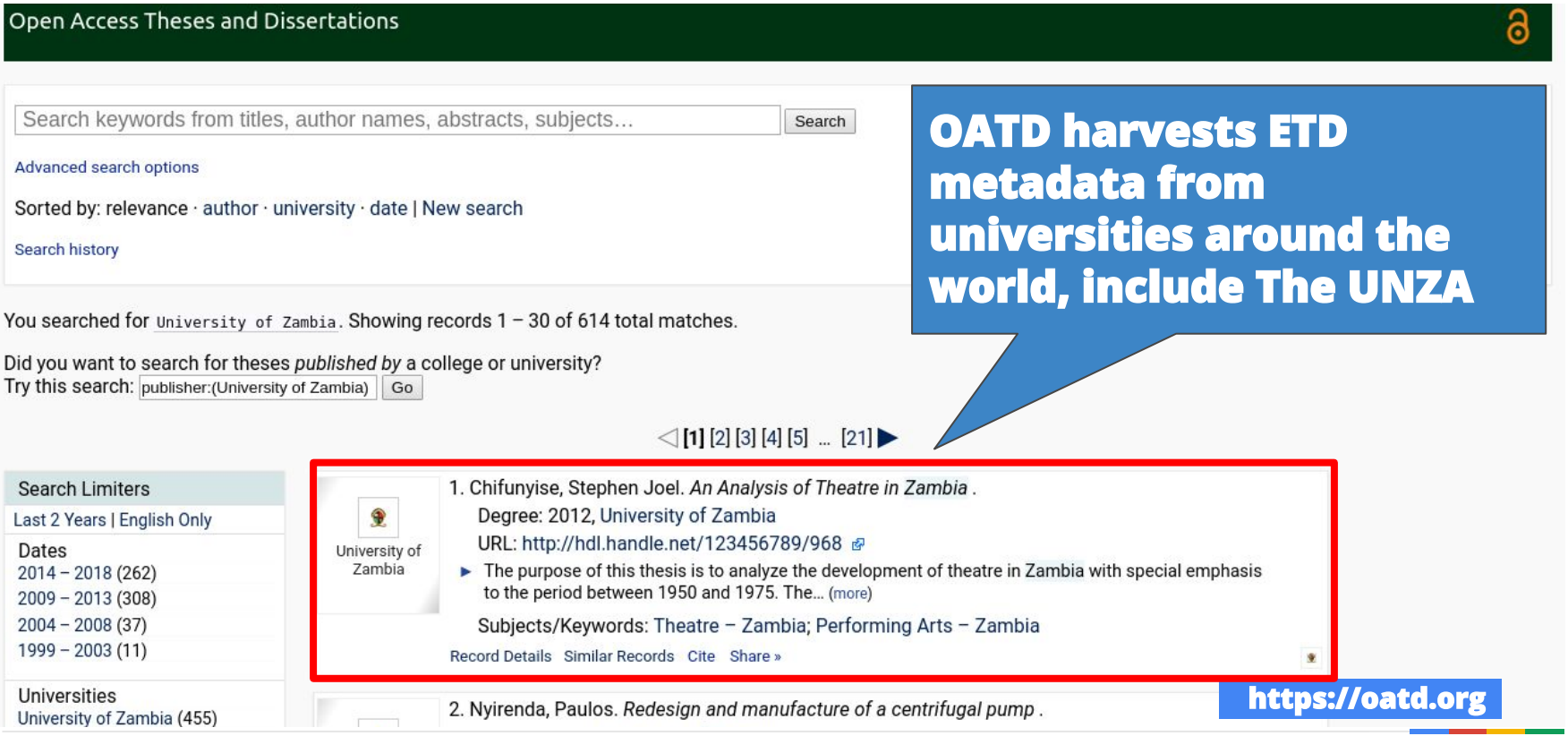
OAI-PMH Data Providers and Service Providers (1)



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

OAI-PMH Data Providers and Service Providers (2)



OAI-PMH Data Providers and Service Providers (3)

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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 Chikwakwa Theatre and the debate be¬tween its advocates and the expatriate-dominated Theatre Association of Zambia concerning the stJte of theatre in Zambia. This chapter also deals with various projects by Chikwakwa 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 inte¬grate Chikwakwa Theatre into the expatriate theatre movement and the role of television drama in the development of theatre in Zambia.

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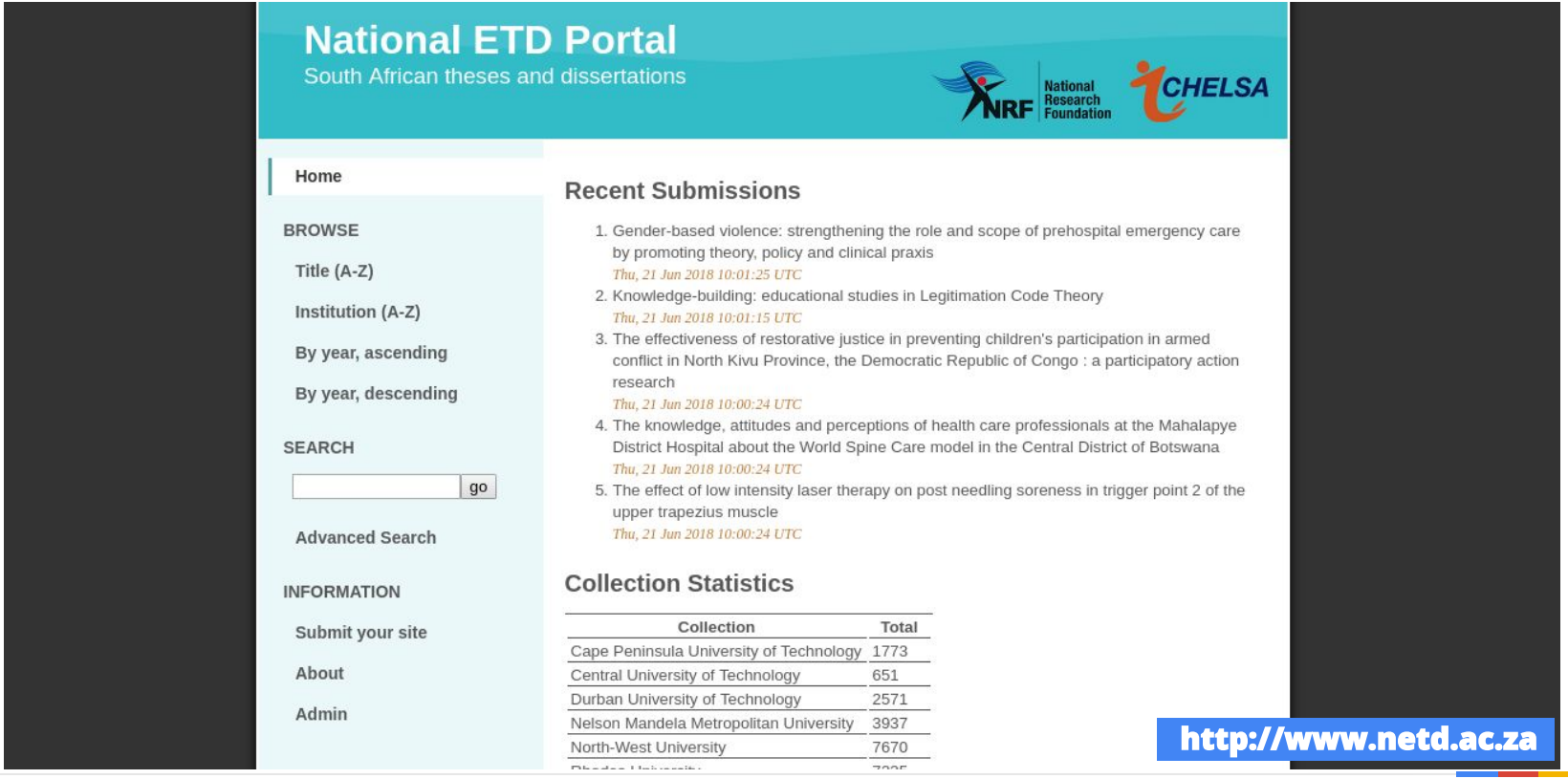

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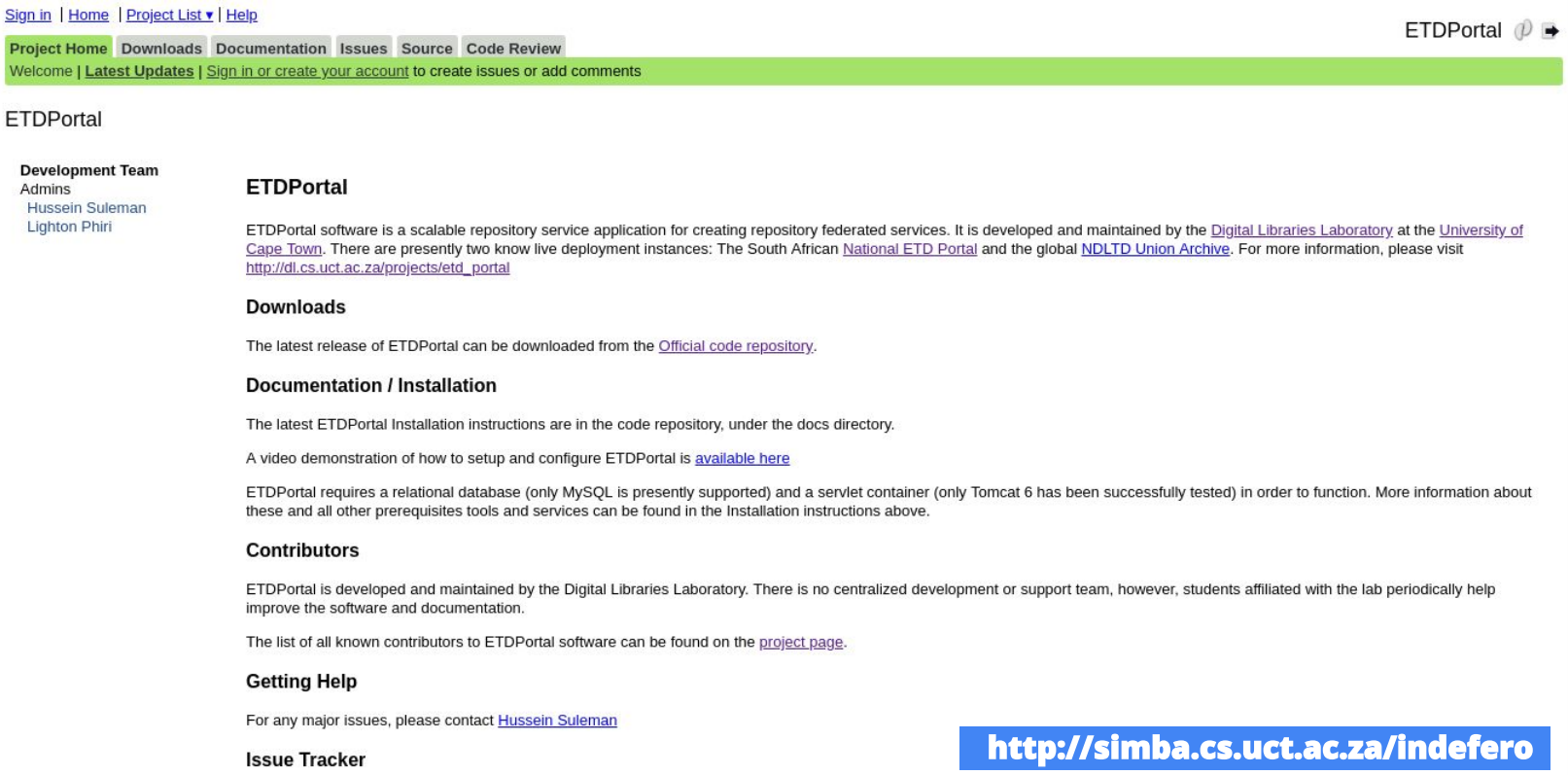
ETD Portal Software (2)



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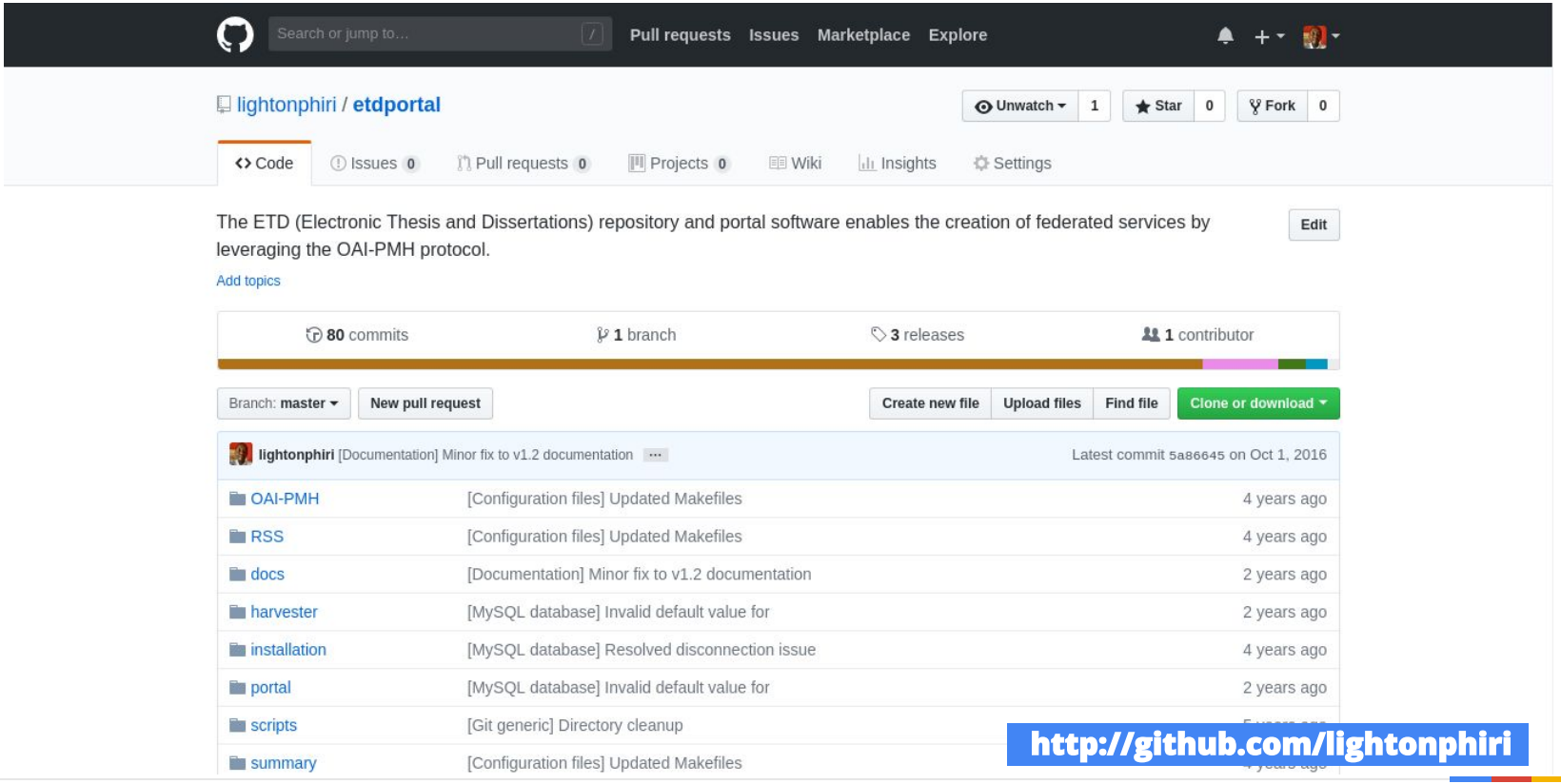
ETD Portal Software (3)



http://github.com/lightonphiri

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[1] Arms, W. (1995). "Key Concepts in the Architecture of the Digital Library". In: D-Lib Magazine. The Magazine of Digital Library Research 1.1. DOI : 10.1045/july95-arms.

[2] Open Archives Initiative Protocol for Metadata Harvesting https://www.openarchives.org/pmh/

[3] Webley, L., Chipeperekwa, T., and Suleman, H. (2011) Creating a National Electronic Thesis and Dissertation Portal in South Africa. Proceedings of ETD 2011, Cape Town, South Africa, 13–15 September 2011.

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