



# ETD 2024

## 27<sup>th</sup> International Symposium on Electronic Theses and Dissertations

*"Electronic Thesis and Dissertation Visibility at a Global Scale"*

**November 4-6, 2024**  
**Livingstone · Zambia**

North America

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Canada

South America

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Asia

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Sing.

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Thail.

Indonesia

Australia and New Zealand

Australia

New Zeal.

Africa

South Africa

Ghana

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## 27th International Symposium on Electronic Theses and Dissertations

The 27th International Symposium on Electronic Theses and Dissertations (ETD 2024) aims to bring together global leaders and researchers working in the broad areas of digital libraries, institutional repositories scholarly research and electronic theses and dissertations. The theme of ETD 2024 is "ETD Visibility at a Global Scale", and will explore innovative approaches that make use of Electronic Theses and Dissertations (ETDs), including the use of modern-day Artificial Intelligence techniques such as Large Language Models and exploration of advances that will result in increased visibility of ETDs at a Global Scale.

Thank you so very much for coming to Livingstone Zambia to participate in the ETD 2024 conference events. We sincerely hope you enjoy the conference and your short stay in Livingstone, and, more importantly have productive and worthwhile discussions and meet new people!

Zikomo Kwambili!

Best Wishes  
Lighton Phiri (Chair)

## **Local Conference Organizing committee**

Lighton Phiri, UNZA	Denny Nsokolo, HEA	Francina Makondo, UNZA
Phyela Mbewe, UNZA	Thabiso Mwiinga, UNZA	Kaoma Daka, UNZA
Matildah Muchinga, LAMU	Stein Mkandawire, ZAMREN	Buumba Dubeka, ZCAS
Adrian Chisale, UNZA	Dokwe Tembo, ZCAS	Cecilia Kasonde, KNU
Habeeazu Mulunda, UNZA	Francis Kawesha, HEA	Fabian Kakana, UNZA
Brian Munkondya, MU	Elijah Chileshe, UNZA	Mpande Ntumbo, ZAMREN

## **Programme committee**

Ana Pavani	Pontifícia Universidade Católica do Rio de Janeiro
Charles Greenberg	NDLTD
Edward Fox	Virginia Tech
Gabriela Mejias	DataCite
Hussein Suleman	University of Cape Town
Iryna Kuchma	EIFL
Jian Wu	Old Dominion University
Joachim Schöpfel	University of Lille
Lazarus Matizirofa	University of the Witwatersrand
Lighton Phiri	University of Zambia
Maïté Roux	ABES
Mirjana Brkovic	University of Novi Sad
Nabi Hasan	Indian Institute of Technology Delhi
Ramesh Gaur	Indira Gandhi National Centre for the Arts
Shantashree Sengupta	P.E.S Modern College of Arts Science and Commerce
Tainá Batista De Assis	Brazilian Institute of Information in Science and Technology
William Ingram	Virginia Polytechnic Institute and State University

# Partner Institutions and Sponsors

The ETD 2024 conference was organised by the Networked Digital Library of Theses and Dissertations (NDLTD) and, additionally hosted by The University of Zambia (UNZA) and co-hosted by The Higher Education Authority (HEA) of Zambia and Zambia Research and Education Network (ZAMREN).

## Gold, Silver and Bronze Sponsors



## Partner Institutions/Organisations



# Timetable

## Day 1. Monday, November 4, 2024

8:30–9:00		<b>Registration</b>	
08:30–10:00	CT	<b>Charles Greenberg, Hussein Suleman, Lighton Phiri</b> NDLTD	Workshop 1. ETDs 101: No Experience Required!
08:30–10:00	CT	<b>Lombe Tembo</b> ORCID	Workshop 2. Leveraging ORCID's Global Participation Program
10:00–10:15		<b>Tea/Coffee</b>	
10:15–13:00	CT	<b>Charles Greenberg, Hussein Suleman, Lighton Phiri</b> NDLTD	Workshop 1. ETDs 101: No Experience Required!
10:15–13:00	CT	<b>Lombe Tembo</b> ORCID	Workshop 2. Leveraging ORCID's Global Participation Program
13:00–14:00		<b>Lunch</b>	
14:00–16:00	CT	<b>Gabriela Mejias, Olatunbosun Obileye</b> DataCite	Workshop 3. DataCite Connect
14:00–16:00	CT	<b>Yinlin Chen, Bill Ingram, Ed Fox</b> Virginia Tech	Workshop 4. Globalizing Knowledge
16:00–16:15		<b>Tea/Coffee</b>	
16:15–18:00	CT	<b>Gabriela Mejias, Olatunbosun Obileye</b> DataCite	Workshop 3. DataCite Connect
16:15–18:00	CT	<b>Yinlin Chen, Bill Ingram, Ed Fox</b> Virginia Tech	Workshop 4. Globalizing Knowledge
18:15–20:00		<b>NDLTD Board of Directors Meeting</b>	
18:00–20:00		<b>University of Zambia Ranking Committee Meeting</b>	

## Day 2. Tuesday, November 5, 2024

07:30–18:00		<b>Registration</b>	
08:30–09:45		<b>Openning Ceremony</b>	
		<b>Chair:</b> Habeenzu Mulunda	
		<b>Venue:</b> Convention Centre	
08:30–08:35		<b>National Anthem</b>	
08:35–08:40		<b>Prayer</b>	
08:40–08:50	IS	<b>Lighton Phiri</b> Chair, ETD 2024	Welcome Remarks
08:50–09:00	IS	<b>Edward A. Fox</b> Executive Director, NDLTD	Opening Remarks
09:00–09:10	IS	<b>Stein Mkandawire</b> CEO, Zambia Research Education Network	Opening Remarks
09:10–09:20	IS	<b>Trywell Kalusopa</b> DVC of Research and Innovation, University of Zambia	Opening Remarks
09:20–09:30	IS	<b>Kazhila C. Chinsembu</b> Director General, Higher Education Authority	Opening Remarks
09:30–09:50	IS	<b>Minister of Education</b> Ministry of Education	Welcome Speech
09:50–11:00	KL	<b>Hussein Suleman</b> University of Cape Town	TBA
11:00–11:30		<b>Tea/Coffee</b>	
11:30–11:45	IT	<b>Sylvia Kgorane</b> ProQuest, a Part of Clarivate	Sponsor Talk
11:45–11:55	IT	<b>Deane Kearns</b> EBSCO Information Services	Sponsor Talk
12:00–13:00		<b>Session 1A. Infrastructure and Technologies</b>	
		<b>Chair:</b> Charles Greenberg	
		<b>Venue:</b> Convention Centre	

12:00–12:20	CT	<b>Vivek Ranjan</b> INFLIBNET	Landscape of Open Access Repositories with Special Reference to Electronic Theses and Dissertations (ETD) across SAARC and BRICS Nations: A Comparative Analysis
12:20–12:40	CT	<b>Zillur Rahman</b> Ahsanullah University of Science and Technology	Designing a plan for sharing ETD among the University Libraries in Bangladesh
12:40–12:60	CT	<b>Kamani Perera</b> Chartered Institute of Personnel Management	Implementing Persistent Identifier Infrastructure for Effective Management of ETD Repositories: A Case Study from Chartered Institute of Personnel Management, Sri Lanka
12:00–13:00	<b>Session 1B. Policies and Practices</b>		
	<b>Chair:</b> Gabriela Mejias		
	<b>Venue:</b> Convention Centre		
12:00–12:20	CT	<b>Shahzeb Hassan</b> Akal University	Future-Proofing Research by Long-term ETD Preservation: Challenges and Opportunities
12:20–12:40	CT	<b>Jive Lubbungu</b> Kwame Nkrumah University	E-Theses and Dissertations in Zambia: A Case Study of Two Universities in Kabwe
12:40–12:60	CT	<b>Kamani Perera</b> Chartered Institute of Personnel Management	Nurturing Advanced Research Culture among Medical Practitioners through ETDs: A case study from University of Kelaniya, Sri Lanka
13:00–14:00	<b>Lunch</b>		
14:00–15:30	<b>Session 2A. Impact and Utilisation</b>		
	<b>Chair:</b> Olatunbosun Obileye		
	<b>Venue:</b> Convention Centre		
14:00–14:20	CT	<b>Juliana Sousa</b> Instituto Brasileiro de Informação em Ciência e Tecnologia	Characterization of Scientific Production on Electronic Theses and Dissertations Based on a Bibliometric Analysis
14:20–14:40	CT	<b>Mark E Phillips</b> University Of North Texas	Extracting and Registering References to Improve Scholarly Impact of ETDs

14:40–15:00	CT	<b>Ana M B Pavani</b> Pontifícia Universidade Católica do Rio de Janeiro	International Visibility of ETDs in Portuguese and in English on a Brazilian Repository
15:00–15:20	CT	<b>Behrooz B. Rasuli</b> Iranian Research Institute for Information Science and Technology (IranDoc)	Do More Complete Dissertations' Metadata Get More Engagement?
14:00–15:30	<b>Session 2B. ETDs in Developing Countries</b>		
	<b>Chair: Hussein Suleman</b>		
	<b>Venue: Convention Centre</b>		
14:00–14:20	CT	<b>Joseph P Telemala</b> Sokoine University Of Agriculture	Improving the Mkulima Repository Content: Utilizing Theses, Dissertations, and LLMs for Agricultural Knowledge Dissemination in Kiswahili
14:20–14:40	CT	<b>Kenneth K Rotich</b> Egerton University	The Changing Landscape in Research Data Management in Kenya's Universities: An Analysis of Development and Implementation
14:40–15:00	CT	<b>Kamani Perera</b> Chartered Institute Of Personnel Management	Empowering HRM Professionals: Advancing Research Culture with ETDs in The Chartered Institute of Personnel Management (CIPM), Sri Lanka
15:00–15:20	CT	<b>Kamani Perera</b> Chartered Institute Of Personnel Management	Unlocking the Potential of ETDs: Implementation Novel ETD Repository in Chartered Institute of Personnel Management in Sri Lanka
15:30–15:45	<b>Tea/Coffee</b>		
15:45–17:00	<b>Session 3A. Infrastructure and Technologies</b>		
	<b>Chair: Kaoma Daka</b>		
	<b>Venue: Convention Centre</b>		
15:45–16:05	CT	<b>Elijah Chileshe</b> University of Zambia	A Pre-Processing Pipeline for Improved ETD Metadata Quality in Downstream Services
16:05–16:25	CT	<b>Adrian Chisale</b> University of Zambia	Seamless Integration of Koha and DSpace for Enhanced Management of Theses and Dissertations in Hybrid Environment: a case of University of Zambia Library

15:45–17:00		<b>Session 3B. ETDs in Developing Countries</b>	
		<b>Chair:</b> Fabian Kakana	
		<b>Venue:</b> Convention Centre	
15:45–16:05	CT	<b>Mpundu Chilonga</b> Kwame Nkruma University	Examining the Cultural and Institutional Factors Impacting ETD Visibility in Zambia: Policy and Practice Implications
16:05–16:25	CT	<b>Lamia Salsabil</b> Old Dominion University	ETD MS v2.0: A New Schema Draft for Electronic Theses and Dissertations
19:00–22:00		<b>Mukuni BOMA Cultural Experience Welcome Reception</b>	

## Day 3. Wednesday, November 6, 2024

07:30–18:00		<b>Registration</b>	
08:30–09:30		<b>Session 4A. Invited Talks: ETD Initiatives in Zambia</b>	
		<b>Chair:</b> Denny Nsokolo	
		<b>Venue:</b> Convention Centre	
08:30–08:40	IT	<b>Benaia Akombwa</b> University of Zambia	Scholarly Research Infrastructure
08:45–08:55	IT	<b>Zachary Zulu</b> University of Zambia	University of Zambia Institutional Repository
09:00–09:10	IT	<b>Clement Sinyangwe</b> Chalimbana University	Chalimbana University Institutional Repository
09:15–09:25	IT	<b>Buumba Dubeka and Dokowe Tembo</b> ZCAS University	ZCAS University Institutional Repository
09:30–09:40	IT	<b>Mpundu Chilonga and Cecilia Kasonde</b> Kwame Nkruma University	Kwame Nkruma University Institutional Repository
09:45–09:55	IT	<b>Eness Chitumbo and Mosebjadi Petje</b> University of Zambia and Times Higher Education	University Ranking
10:00–11:00		<b>Session 5A. Panel Discussion</b>	

		<b>Chair: Dokwe Tembo</b> <b>Venue: Convention Centre</b>	
10:00–11:00	IT	<b>How do we set up Successful ETD Projects in Zambia?</b> Moderator: Hussein Suleman	Participants: Gabriela Mejias (DataCite) · Manoj Kumar (INFLIBNET) · Lighton Phiri (UNZA) · Zachary Zulu (UNZA)
11:00–11:30		<b>Session 6A. Poster/Demo Session: Minute Madness</b>	
		<b>Chair: Lombe Tembo</b> <b>Venue: Convention Centre</b>	
11:00–11:03	CT	<b>Kamani Perera</b> Chartered Institute of Personnel Management	Enhancing Access to Scholarly Knowledge: Strategies for Promoting Open Access ETDs in Sri Lanka
11:03–11:04	CT	<b>Okhakhu O. David</b> Lead City University	Enhancing Electronic Thesis and Dissertation Visibility: A Focus on Institutional Repository Platforms and Inherent Challenges in the Nigerian Context
11:04–11:06	CT	<b>Kamani Perera</b> Chartered Institute of Personnel Management	Total Quality Management in ETD Repository at Chartered Institute of Personnel Management (CIPM)
11:06–11:08	CT	<b>Martin C Musonda</b> University of Zambia	Automatic Summarisation of Electronic Theses and Dissertations for Increased Media Engagement
11:08–11:10	CT	<b>Lwiime Shansonga</b> University of Zambia	Automatic Electronic Thesis and Dissertation Guideline Verification For Consistently Formatted Manuscripts
11:10–11:12	CT	<b>Elijah Chileshe</b> University of Zambia	Design and Implementation of an Interoperable Zambia National Electronic Thesis and Dissertation Portal
11:12–11:14	CT	<b>Vivek Mr Ranjan</b> INFLIBNET Center	Exploring AI-driven strategies for enhancing the visibility of E-Theses in Shodhganga Repository
11:14–11:16	CT	<b>Rajabu Mr Simba</b> AHILA	Assessing the Efficiency of Data Science Programs in Enhancing Big Data Analysis Skills among Health Libraries and Information Scientists

11:16–11:18	CT	<b>Zainabu H LILUTU</b> Mbeya University of Science and Technology	Optimizing Electronic Theses and Dissertations Management for Broad Audience Engagement at Dr. Magufuli Library of Mbeya University of Science and Technology, Tanzania
11:18–11:20	CT	<b>Zillur Rahman</b> Ahsanullah University of Science and Technology	Determining the factors influencing the utilization of open source digital repository software in the preservation of ETDs in academic libraries in Bangladesh
11:20–11:22	CT	<b>Zillur Rahman</b> Ahsanullah University of Science and Technology	ETDs in Ensuring Quality Education for Economic Growth to Achieve Sustainable Development Goals (SDGs): Experience of SAARC Countries
11:22–11:24	CT	<b>Mutali M Lithole</b> University Of Johannesburg	The University of Johannesburg's journey to enhance the content of the Institutional Repository (IR) and improve discoverability
11:24–11:26	CT	<b>Mduduzi Ntetha</b> UNISA	The conversion of printed theses and dissertations into digital formats: A case study of the University of South Africa library
11:26–11:28	CT	<b>Sukanta Kumar Patra</b> Vidyasagar College for Women	Global Visibility of National ETD Repositories of G20 Countries: comparative studies with respect to NDLTD's meta repository
11:28–11:30	CT	<b>M A M Mominur Rahman</b> University Of Rajshahi	Managing ETDs in Rajshahi University Central Library : Problems and Possibilities
11:30–11:32	CT	<b>Nobbie kandira</b> Zimbabwe Open University	Creating an ETD database using OMEKA. The Zimbabwe Open University Experience
11:45–12:30		<b>Tea/Coffee</b>	
11:45–12:30		<b>Session 7A. Poster Session with Tea/Coffee</b>	
		<b>Chair:</b> Thabiso Mwiinga	
		<b>Venue:</b> Convention Centre	
12:30–13:00		<b>Closing Ceremony</b>	
		<b>Chair:</b> Buumba Dubeka	
		<b>Venue:</b> Convention Centre	

12:30–12:45	IT	<b>Lighton Phiri</b> Chair - ETD 2024	Closing Remarks
12:45–13:00	IT	<b>John Hagen</b> Executive Director - USETDA	ETD 2025 Presentation
13:00–14:00	<b>Lunch</b>		
14:00–15:00	<b>Mukuni Village Tour</b>		
14:00–15:00	<b>Victoria Falls Tour</b>		

# List of Abstracts

## Workshops

### ETDs 101: No Experience Required!

**Charles Greenberg**, Networked Digital Library of Theses& Dissertations, United States

Many universities do not yet participate in the global network of digitized student theses or dissertations. The Networked Digital Library of Theses and Dissertations (NDLTD) wants to help universities to get started by sharing experiences of those that started ETD programs from nothing. Among the topics to be covered are: (i) Lifecycle Management of ETDs; (ii) Institutional Partnerships; (iii) Technology–Institutional repositories and OAI-PMH; (iv) Intellectual property issues; (v) Building an institutional concensus and (vi) Regional, National, and International support.

Please bring questions for the NDLTD Board members and paper presenters.

## **DataCite Connect: Global visibility for your ETDs and beyond with PIDs**

**Gabriela Mejias**, DataCite, Germany

PIDs and their associated metadata can be considered the building blocks of research infrastructure (Meadows et al., 2019). In addition, PIDs play a central role in the Open Science framework as they can increase transparency and recognition in research, and facilitate integration and interoperability, as well as making research FAIR (Wilkinson et al. 2016).

This half day workshop will explore how Persistent Identifiers (PIDs), particularly Digital Object Identifiers (DOIs), can significantly boost the global visibility of Electronic Theses and Dissertations (ETDs) and other research outputs. We'll cover the basics of PIDs, showing how DOIs improve visibility and discoverability for academic work. Through case studies, you'll see real-world examples of research organizations that have successfully integrated PIDs into their ETD repositories and other workflows. The session culminates in a breakout discussion to share best practices and explore implementation strategies. This workshop offers valuable insights for enhancing the visibility of your research through DataCite's PIDs, providing a unique opportunity to connect with the broader research community. Proposed activities:

- (20 min) Welcome and Ice breaker activity - (30 min) Introduction to Persistent Identifiers (PIDs) and how they support open research - (30 min) Discover the role of Digital Object Identifiers (DOIs) in making ETDs more visible and discoverable on a global scale.
- (30 min) Improving ETD and other research workflows with PIDs.
- (20 min) Coffee break
- (40 min) Case studies featuring invited guest speakers from research organizations implementing PIDs in their ETDs, research data repositories (and other!) workflows
- (50 min) Breakout session to discuss best practices and implementation workflows
- (10 min) Adjourn

Details of similar previous workshops:

<https://datacite.org/event/datacite-connect-gothenburg-dataciteconnect23/>

<https://datacite.org/event/datacite-connect-buenos-aires-dataciteconnect23/> ETD Open Science: Maximizing the Discoverability and Impact through Persistent Identifiers (PIDs) <https://etd2023.inflibnet.ac.in/programme.php>

Facilitators: Gabriela Mejias, Bosun Obileye (DataCite). Guest speakers from research institutions will be confirmed upon workshop acceptance notification.

## **Globalizing Knowledge: Leveraging Large Language Models to Enhance Accessibility of ETDs**

**Yinlin Chen**, Virginia Tech, United States

Electronic Theses and Dissertations (ETDs) encapsulate significant research findings and innovative ideas but often have limited visibility and accessibility, particularly in regions and disciplines with restricted digital reach. This workshop introduces an LLM-based application using a Retrieval-Augmented Generation (RAG) architectural approach to address these challenges. By utilizing LLMs to translate and standardize ETD metadata and content into a user's native language, a unified vector database is established as a knowledge source for retrieving relevant information. This information is then supplied to the LLMs to generate comprehensive responses, enhancing searchability tailored to local or remote ETD collections.

This approach improves the indexing and discoverability of ETDs and ensures accessibility across linguistic boundaries. During the workshop, we will present the details of this system's components, illustrating the program workflow and the interaction dynamics between the query, retrieval, and response generation phases. Participants will learn how to integrate these technologies into their digital library systems and repositories, adapting them to various institutional needs to enhance their ETD collections' global visibility and utility.

## **Leveraging ORCID's Global Participation Program and Regional Consortium Approach to enhance Global ETD discoverability and reuse**

**Lombe Tembo**, ORCID, Zambia

This workshop proposal aims to explore strategies for leveraging ORCID and Persistent Identifiers (PIPs) to enhance the discoverability and reusability of Electronic Theses and Dissertations (ETDs) on a global scale. ETDs represent a vital component of scholarly communication, providing valuable insights and contributions to research across various disciplines. However, their full potential often remains untapped due to challenges related to visibility, accessibility, and interoperability.

ORCID, providing an open registry and a unique identifier for researchers, offers a transformative solution to address these challenges by placing researchers at the center of scholarly communication. With over 6000 connected systems worldwide, ORCID provides a robust infrastructure to facilitate trusted data exchange through integrations with global scholarly systems and indexes. By adopting ORCID in ETD repositories, institutions can enhance the quality of data associated with ETDs, improve interoperability with other scholarly systems, and increase visibility and reuse on a global scale.

In addition to ORCID, other Persistent Identifiers (PIPs) play a crucial role in enhancing the discoverability of ETDs by providing unique and persistent links to scholarly output.

Through the implementation of PIPs in ETD repositories and connected systems, institutions can ensure that ETDs remain discoverable and accessible over time, thus maximizing their impact and visibility within the research community.

Furthermore, this workshop will explore the role of ORCID's Global Participation Program (GPP) and Regional Consortium initiatives to facilitate global communities of practice, fostering collaboration among diverse stakeholders that advance ETD management practices. By participating in the GPP and regional consortia, institutions can leverage collective expertise, resources, and networks to enhance the visibility and impact of ETDs on a global scale.

Through collaborative discussions, participants will gain actionable insights and strategies to effectively leverage ORCID and PIPs for ETD management and dissemination. By engaging with this workshop, participants will be empowered to maximize the impact of ETDs through PIPs within their institutions and contribute to the advancement of scholarly communication on a global scale.

This session can be part of a wider workshop relating to scholarly infrastructure and/or

PIDs, and can also be placed within the main conference presentation line-up.

## Full Papers

### **Improving the Mkulima Repository Content: Utilizing Theses, Dissertations, and LLMs for Agricultural Knowledge Dissemination in Kiswahili**

**Joseph P Telemala**, Sokoine University of Agriculture, Tanzania

The Sokoine National Agricultural Library (SNAL) at the Sokoine University of Agriculture (SUA) faces significant challenges in disseminating agricultural information to Swahili-speaking communities, as most research outputs are predominantly in English. This language barrier hinders the effective transmission of vital agricultural knowledge to key stakeholders in the agriculture-food value chain who use Kiswahili in their daily activities. To address this gap, SNAL established the Mkulima Collection and Repository, dedicated to collecting agricultural content in Kiswahili. Despite these efforts, the Swahili content in the repository remains limited.

This study seeks to enhance the Mkulima Repository by translating abstracts from English-language theses and dissertations using MarianMT, a machine translation (MT) model based on large language models (LLMs). The selected abstracts underwent pre-processing, machine translation, and subsequent quality assessment by multilingual experts.

Our findings reveal significant challenges in using LLMs like MarianMT for low-resource languages such as Kiswahili. While the MT system offers a rapid and scalable method for translating academic content, the accuracy and fluency of the translations were found to be suboptimal, as indicated by the evaluators. Common translation errors, particularly in agriculture-specific terminology and scientific names, highlight the limitations of current MT models in handling specialized agricultural content. These issues underscore the need for a more refined approach, including the development of a curated dataset of Swahili-English pairs that focus on agricultural jargon and the integration of a knowledge base to address the translation of scientific terms.

# **Landscape of Open Access Repositories with Special Reference to Electronic Theses and Dissertations (ETD) across SAARC and BRICS Nations: A Comparative Analysis**

**Vivek Ranjan, INFLIBNET, India**

Research Outputs stored as softcopy and archived through Open-Access is getting with momentum across the globe. Academic and Research Institutes, meticulously following the research guidelines and policies, are systematically producing and storing research results in sophisticated ETDs in almost every nation. In the digital age, global visibility of research is crucial, with Electronic Theses and Dissertations (ETDs) playing a vital role. Open Access Repositories (OARs) have gained traction, led by Europe, North America, and increasingly by Asia. Key repositories like ProQuest Dissertations Theses Global and DART-Europe are instrumental in this movement. Noteworthy ETD repositories in SAARC and BRICS nations which include Shodhganga in India maintained by INFLIBNET Centre, the Digital Archive on Agricultural Theses and Journals in Bangladesh, Pakistan Research Repository, and Biblioteca Digital Brasileira de Teses e Dissertações in Brazil. Starting little late in 2010, India gradually created its Repository and stands out for its substantial contributions to the ETD landscape. (Open ROAR). However, a few challenges remain in establishing comprehensive ETD repositories, given the diverse characteristics of these nations in terms of population size and higher education institutions. Structure and architecture of ETDs, workflow of submissions and authentication, Metadata Standards used, harvesting methods implemented, scalability and interoperability, DRM issues etc. are major concerns while comparing the ETDs across the globe. In order to find out the commonalities and differences, a detailed analysis of ETD repositories across SAARC and BRICS nations is essential.

Objectives 1. To compare open access ETD repositories in SAARC and BRICS countries, focusing on subject coverage and regional language contributions. 2. To investigate the software used for open access ETD repositories across SAARC and BRICS nations. 3. To analyze copyright policies relevant to open access ETD repositories across SAARC and BRICS nations. 4. To evaluate persistent metadata standards within the open access ETD repositories across SAARC and BRICS nations.

The available Open-Access ETD repositories under Open ROAR/DOAR are examined for deriving the sample size for analysis. The study employs a systematic approach for ETD data collection and analysis. It identifies active ETD repositories based on accessibility and content relevance. Information on software platforms, copyright policies, metadata standards, and subject coverage are gathered. Both thematic analysis and quantitative methods are used to identify patterns and trends.

It encompasses essential steps such as conducting thorough searches to identify active

ETD repositories, gathering repository information on software platforms, copyright policies, and metadata standards, categorizing ETDs based on subject classifications and language assessment, developing a search strategy for AI-related ETDs, and performing both thematic and quantitative analyses to discern patterns and trends in the data.

The analysis shows a varied landscape of ETD repositories across SAARC and BRICS nations. India's Shodhganga is a significant contributor, reflecting the country's leadership in this area. It also highlights differences in repository management software and metadata standards, with some countries adopting more advanced systems than others. Copyright policies also vary, affecting the accessibility and use of ETDs. (Details will be available in full paper)

The analysis underscores diverse open access ETD repositories across SAARC and BRICS nations, differing in subject coverage, language representation, software, copyright policies, metadata standards, and interoperability. By spotlighting regional languages and AI research, this study suggests a democratization of knowledge access and innovation.

## **E-Theses and Dissertations in Zambia: A Case Study of Two Universities in Kabwe**

**Jive Lubungu**, Kwame Nkrumah University, Zambia

The Sokoine National Agricultural Library (SNAL) at the Sokoine University of Agriculture (SUA) faces significant challenges in disseminating agricultural information to Swahili-speaking communities, as most research outputs are predominantly in English. This language barrier hinders the effective transmission of vital agricultural knowledge to key stakeholders in the agriculture-food value chain who use Kiswahili in their daily activities. To address this gap, SNAL established the Mkulima Collection and Repository, dedicated to collecting agricultural content in Kiswahili. Despite these efforts, the Swahili content in the repository remains limited.

This study seeks to enhance the Mkulima Repository by translating abstracts from English-language theses and dissertations using MarianMT, a machine translation (MT) model based on large language models (LLMs). The selected abstracts underwent pre-processing, machine translation, and subsequent quality assessment by multilingual experts.

Our findings reveal significant challenges in using LLMs like MarianMT for low-resource languages such as Kiswahili. While the MT system offers a rapid and scalable method for translating academic content, the accuracy and fluency of the translations were found to be suboptimal, as indicated by the evaluators. Common translation errors, particularly in agriculture-specific terminology and scientific names, highlight the limitations of current MT models in handling specialized agricultural content. These issues underscore the need for a more refined approach, including the development of a curated dataset of Swahili-English pairs that focus on agricultural jargon and the integration of a knowledge base to address the translation of scientific terms.

## **Designing a plan for sharing ETD among the University Libraries in Bangladesh**

**Zillur Rahman,** Ahsanullah University Of Science and Technology, Bangladesh

Purpose – ETDs have a great impact on exploring higher education in all higher educational institutions of the world. Sharing of ETDs among the universities can prevent repetition of research and guide new research direction. It assures in averting plagiarism, controlling theft and copyright of one's intellectual property. Hence, the purpose of this research is to design a plan for sharing ETD among the University Libraries in Bangladesh within the existing consortium and networking and resource sharing framework.

Design/methodology/approach – This study uses both qualitative and quantitative approaches along with review of related literature. This paper begins with an overview of consortium and networking and resource sharing framework currently being employed by the university libraries of Bangladesh in electronic and digital platforms. It moved into a discussion of necessity of consortium and networking and resource sharing among the libraries as a whole and particularly in higher education. It closes by stressing a suitable model plan for developing countries like Bangladesh. Data has been collected through survey questionnaire. The conceptual and textual information related to the present study have been collected from primary and secondary sources of information such as books, journals, magazines, newspapers, conference proceedings, official documents, and unpublished sources. Websites of the sampled University Libraries have also been used for collecting information. Literature has been reviewed and extraction has been presented in the form of figure and tables. After processing and analysis of the data, appropriate physical meaning and interpretation to the numerical results in real life given for each of the Table and Figures.

Findings – The study reveals that ETDs have a great role in disseminating knowledge among the academic communities. ETDs can be shared and impart in academic community locating any corner of the world. In such a paradox, no standard University Consortium has been built in Bangladesh since the independence in 1971. Several initiatives were taken by different organization including University Grants Commission (UGC), BANSDOC and universities individually but failed due to administrative skills and national guidelines. In case of university library consortium the situation is worse than other research organizations. There was no library consortium in Bangladesh before 2007. In 2006, an initiative was taken by the UGC of Bangladesh to form a Digital Resource Consortium for university libraries in Bangladesh for sharing integrated library resources including e-resources and computer database (Uddin Chowdhury, 2006, p. 490-3, Uddin, 2009, p. 196). In 2007, one consortium formed in Bangladesh was named Bangladesh INASP-PERI Consortium (BIPC), presently LiCoB with the participation of major public and private universities and a few research institutions under the guidance and supervision

of Bangladesh Academy of Sciences (Uddin, 2009, p.196). Digital Archive on Agricultural Theses and Journal (DAATJ) found only established network in Bangladesh. In 2009 UGC has formed UDL consortium under HEQEP to provide electronic resources among the universities with the financial support of World Bank.

Research limitations/implications – There are around 172 universities in Bangladesh now. Data collections from these universities are important to come in any concrete conclusion.

The study depends on questionnaire on selected public and private universities only.

Practical implications – This study divulges a simple and cost effective Model Plan to implement within the existing framework of resource sharing to support in the digital environment. The research findings will direct the students of Library and Information Science, Faculty Members, and Policy Makers in further decision making and research.

# **Implementing Persistent Identifier Infrastructure for Effective Management of ETD Repositories: A Case Study from Chartered Institute of Personnel Management, Sri Lanka**

**Chartered Institute Of Personnel Management , Sri Lanka,**

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**ntroduction:** Electronic Theses and Dissertations (ETDs) have become integral components of scholarly communication, offering valuable insights into academic research and contributing to the advancement of knowledge across diverse fields. As the digital landscape continues to evolve, the management and accessibility of ETDs present both opportunities and challenges for academic institutions, libraries, and researchers alike. In this context, it is important to establish a vibrant infrastructure for persistent identifiers (PIPs) to proper management of ETDs. Persistent identifiers are essential tools that enable the unique and unambiguous identification of digital objects, ensuring their long-term discoverability, accessibility, and citability. In the context of ETD repositories, implementing a comprehensive PIP infrastructure is paramount to streamline access, enhance interoperability, and facilitate scholarly communication. In this research study, it is described the significance of implementing a persistent identifier infrastructure for the effective management of ETD repositories. By examining the role of PIPs in improving discoverability, ensuring integrity, and fostering collaboration within the scholarly community, this study seeks to provide insights into best practices and strategies for implementing PIP systems tailored to the unique needs of ETD repositories.

**Objectives**

- To enhance discoverability
- To improve accessibility and long-term preservation
- To foster interoperability and integration among different ETD repositories
- To enable accurate and reliable citation of ETDs

**Methodology:** A comprehensive review of existing literature, scholarly articles, reports, and best practices related to persistent identifiers, electronic theses and dissertations, repository management, and digital preservation were conducted. This review provides a foundational understanding of the current state-of-the-art, challenges, and opportunities in implementing persistent identifier infrastructure for ETD repositories. Various persistent identifier systems and frameworks such as DOI (Digital Object Identifier), ARK (Archival Resource Key), were evaluated to identify the most suitable system for the repository.

**Results and Conclusion:** Implementation of persistent identifier infrastructure led to a significant increase in the discoverability of ETDs within repository systems and external databases. By assigning unique identifiers to each document, ETDs became more easily searchable and identifiable, thereby improving their visibility among scholarly community. Further, it ensured the long-term accessibility and preservation of ETDs. Stable links provided by persistent identifiers enabled continued access to ETDs over time, even as

technologies evolved and platforms changed. In this context, ETDs remained accessible to future generations. It promoted collaboration and knowledge sharing across institutional boundaries, facilitating interdisciplinary research and fostering a more interconnected scholarly ecosystem. Persistent identifiers streamlined the citation process for ETDs, promoting accuracy, reliability, and proper attribution to authors. Stable references provided by persistent identifiers were easily included in scholarly publications, citations, and bibliographies, supporting transparency, reproducibility, and scholarly communication.

The implementation of persistent identifier infrastructure has proven to be instrumental in enhancing the management of ETD repositories. By providing unique PIDs for ETDs, this infrastructure has improved the discoverability, accessibility, interoperability, and citability of scholarly works, thereby facilitating broader dissemination of knowledge and fostering collaboration within the academic community. PIDs support the long-term preservation and accessibility of valuable research outputs for the benefit of future generations.

# **Empowering HRM Professionals: Advancing Research Culture with ETDs in The Chartered Institute of Personnel Management (CIPM), Sri Lanka**

**Kamani Perera,** Chartered Institute Of Personnel Management, Sri Lanka

Introduction: The Chartered Institute of Personnel Management (CIPM) plays a key role in the professional development of Human Resource Management (HRM) practitioners.

To enhance this development, there is a growing recognition of the importance of fostering a culture of advanced research within the HRM community. This study focuses on the utilization of Electronic Theses and Dissertations (ETDs) as a means to empower

HRM professionals in CIPM, enabling them to engage in rigorous research practices.Objectives: •To assess the current state of research culture among HRM professionals in CIPM•To identify the potential benefits of ETDs in advancing the research culture, and •To provide recommendations for integrating ETDs effectively into the professional development framework in the field of HRM

Methodology: A mixed-methods approach was employed, starting with a comprehensive literature review to establish the foundation of research culture, the significance of ETDs, and their potential impact on HRM practitioners. This was followed by a survey distributed among a sample of HRM professionals within CIPM to gather insights into their awareness, usage, and perceptions of ETDs.Additionally, qualitative interviews were conducted with HRM leaders to delve deeper into the challenges and opportunities associated with integrating ETDs into professional development.

Results: The findings reveal a varied kind of utilization of ETDs among HRM professionals in CIPM. While there is a general awareness of ETDs, their full potential in enhancing research skills and knowledge dissemination is yet to be realized. Challenges such as limited access to ETD repositories and inadequate training opportunities were identified. However, respondents expressed enthusiasm for incorporating ETDs into their professional development, higher education activities recognizing the value they hold in expanding their research capabilities and staying updated with current HRM trends.

Conclusions: In conclusion, this study highlights the importance of advancing research culture among HRM professionals in CIPM through the effective utilization of ETDs. Recommendations include developing tailored training programs on ETD usage, improving access to ETD repositories, and nurturing collaboration between HRM professionals to share research findings. By embracing ETDs, HRM professionals can not only enhance their individual skills but also contribute to the overall knowledge base within the field. This research serves as a call to action for CIPM and similar organizations to prioritize the integration of ETDs into their professional development strategies, ultimately empowering HRM professionals to excel in their roles and drive innovation in the field for the sustainable economy of the country.

## **International Visibility of ETDs in Portuguese and in English on a Brazilian Repository**

**Anna B Pavani**, Pontifícia Universidade Católica do Rio de Janeiro, Brazil

Background and Introduction: Portuguese is the 9th most spoken language (4th Western language) in the world according to Berlitz (<https://www.berlitz.com/blog/most-spoken-languages-world>) or the 8th (4th Western according to Statista (<https://www.statista.com/statistics/266808/the-most-spoken-languages-worldwide/>)). Both numbers mean that Portuguese has a large number of speakers. The Comunidade de Países de Língua Portuguesa (<https://www.cplp.org/>) lists nine countries that have Portuguese as one of the official languages – Angola (36.7M), Brazil (216.4M), Cape Verde (0.6M), Guinea-Bissau (2.2M), Equatorial Guinea (1.7M), Mozambique (33.9M), Portugal (10.2M), São Tomé & Príncipe (0.2M) and Timor-Leste (1.4M). Their populations in 2023 were informed on Worldometer (<https://www.worldometers.info/world-population/population-by-country/>). It can easily be observed that Brazil holds 71.3% of the Portuguese speaking population. This work focuses on the ETD collection of a university in Brazil. It has offered graduate programs since the early 1960s, when T&D were published in pt, unless a special request was submitted. ETDs had been optional since 2000 and became mandatory in 2002. In 2008, ETDs presented in foreign languages started being accepted without special authorization. The current numbers of ETDs by language are:

Objectives: The objective of this work is to examine if the patterns of accesses (numbers of accesses and the numbers and languages of the countries where they originated) are different for ETDs in en and in pt.

Method: This work is based on the analysis of data available on the Institutional Repository and organized in an OA dataset available on the same repository. Data on the dataset are numbers of ETDs and of OA ETDs, average numbers of partitions, numbers of accesses and the countries where they came from. The dataset shows that the percentages of ETDs in each language are very different. The percentages of ETDs in en are contained in the interval from little less than 5.0 (2019) to a little over 8.0 (2023).

The % of ETDs in en are growing every year, though. Examination of the statistics available on the repository shows that ETDs in en are predominantly in Science & Technology and Economics. For this reason, part of the analysis was based on averages to make up for the differences in numbers. Normalization was also used due to the fact that ETDs are partitioned and the numbers of partitions vary according to the language and to the year. Analysis is also performed on accesses from groups of countries that have either pt or en as one of the official languages. The work contains tables and graphics.

**Results and Conclusions:** Most results are not surprising. The first is that accesses from Brazil account for almost 75% to ETDs in pt. The second is that accesses from the US are over 39% to ETDs in en and accesses from countries that have neither language as official are over 35% and over 9%, respectively, for en and pt. The numbers of countries are between 150 and 172 for en and between 194 and 215 for pt; it is important to remark that the numbers of ETDs in pt are over 10 times as big as the corresponding (per year) in en. A surprising result is the number of accesses from pt-speaking countries which were less than 7% for ETDs in pt. A not so surprising result is that in the five years of observation the average numbers of accesses are different for both languages but ETDs in pt had two to three times the average numbers of accesses when compared to the works in en. There are differences in the patterns of accesses in the two sets. The percentages of accesses from Brazil are significant even to works in en. This is easy to explain due to the fact that the university is in Brazil. The other difference comes from the fact that ETDs in en are mostly in S&T and Economics, and there are many repositories in these areas offering works in en.

## **ETD-MS v2.0: A Proposed Extended Standard for Metadata of Electronic Theses and Dissertations**

**Lamia Salsabil**, Old Dominion University, USA

The growth of Electronic Theses and Dissertations (ETDs) in academic repositories requires comprehensive and robust schemas for compliance with the FAIR (Findability, Accessibility, Interoperability, and Reusability) principles. Dublin Core and ETD-MS v1.1 were established as the metadata standards for general scholarly documents and ETDs. We identified several gaps between the existing schemas and the need to represent ETDs comprehensively toward a better digital service. The content-level data, including objects comprising ETDs, become increasingly crucial to facilitate the development of machine learning models to mine scientific knowledge from ETDs, and scholarly big data services in general. By organizing content-level data into a new schema, this paper addresses the critical need for enhancing the expressiveness and depth of metadata for ETDs. The schema proposed includes a Core Component building on the existing ETD-MS v1.1 schema, and an Extended Component that captures objects, their provenance, and user interactions for ETDs. The schema covers 28 entities with a total of 160 metadata fields. To demonstrate applicability, we implemented the schema using MySQL and populated it with data derived from 1,000 ETDs collected from U.S. university libraries. This work provides a comprehensive and flexible approach that addresses the limitations of existing standards by enabling the description of content-level data, laying the groundwork for integrating advanced AI techniques into academic repositories.

## **Nurturing Advanced Research Culture among Medical Practitioners through ETDs: A case study from University of Kelaniya, Sri Lanka**

**Lanka Ranaweera,** Faculty Of Medicine, University Of Kelaniya, Sri Lanka

**Introduction:** In the context of the Faculty of Medicine at the University of Kelaniya, Sri Lanka, electronic theses and dissertations (ETDs) play a pivotal role in fostering an advanced research culture among medical practitioners. This study delineates the multifaceted contributions of ETDs across various academic programs, including the Master of Public Health (MPH), BSc Degree in Speech and Hearing Sciences, BSc Degree in Occupational Therapy, and PhD dissertations from the Molecular Medicine Unit.

**Purpose of the Present Study:** The aims of the present study were to highlight the significance of ETDs in advancing medical research data and showcase the diverse applications of ETDs across different academic programs at the Faculty of Medicine.

**Methodology:** A comprehensive review of ETDs produced by students across various academic programs within the Faculty of Medicine at the University of Kelaniya was conducted. The review encompassed ETDs from the MPH program, BSc Degree programs in Speech and Hearing Sciences and Occupational Therapy, and PhD dissertations from the Molecular Medicine Unit. Data were analyzed to identify key themes, contributions, and impacts of ETDs on healthcare services and research activities. The Master of Public Health (MPH) program equips students with evidence-based approaches to promote health and prevent diseases, with ETDs contributing substantially to evidence-based public health interventions and policy formulation. PhD dissertations from the Molecular Medicine Unit provide consultancy services in Molecular Diagnosis and DNA typing and engage in research on infectious/vector-borne diseases and genetic diseases, thereby enhancing healthcare services in Sri Lanka. Importantly, it was noticed that the students of the BSc Degree program in Speech and Hearing Sciences produce compact discs (CDs) rather than ETDs. The BSc Degree program in Occupational Therapy commenced only two years ago and has not yet produced any theses.

**Discussion:** The findings from this research highlight the significant contributions of various academic programs to the field of public health and healthcare services in Sri Lanka. Each program plays a crucial role in advancing health-related knowledge, practices, and policies. The MPH program emphasizes evidence-based approaches to health promotion and disease prevention, equipping students with critical skills. Their ETDs contribute substantially to public health interventions and policy formulation, enhancing the effectiveness of interventions and policies at both local and national levels. PhD dissertations from the Molecular Medicine Unit illustrate the program's pivotal role

in advancing healthcare services through specialized research and consultancy, directly enhancing healthcare delivery. In contrast, the BSc Degree program in Speech and Hearing Sciences has been producing CDs rather than ETDs, hindering accessibility and dissemination of research findings. Transitioning to ETDs could facilitate interdisciplinary research and collaboration. The BSc Degree program in Occupational Therapy, established only two years ago, has not yet produced any theses. Adopting the practice of producing ETDs from the outset would ensure that student research contributes to the global body of knowledge in occupational therapy and aids in developing evidence-based practices. ETDs serve as catalysts in identifying potential opportunities for collaborative research endeavors, driving innovative solutions despite financial constraints.

**Conclusion:** It is imperative to encourage the initiation of ETD production for newly established degree programs that have not yet commenced research activities. Transitioning from CDs to ETDs is highly recommended to amplify the impact and accessibility of student research outputs. The widespread adoption of ETDs in all Faculty of Medicine programs is crucial for promoting interdisciplinary research, fostering partnerships, and innovating health care solution.

## **Future-Proofing Research by Long-term ETD Preservation: Challenges and Opportunities**

**Shahzeb Hassan,** Akal University, India

This paper examines the challenges and opportunities in preserving Electronic Theses and Dissertations (ETDs). It highlights the significance of ETDs in academia and public knowledge while addressing technological hurdles such as digital obsolescence, data integrity, cybersecurity threats, and infrastructure limitations. The paper explores technological advancements like digital preservation tools, open-source platforms, cloud storage, and automation that can mitigate these challenges. Organizational and policy issues, including institutional policies, funding, legal considerations, and the need for collaboration, are also discussed. The study advocates for comprehensive preservation policies, strategic funding, enhanced legal frameworks, and strengthened institutional collaboration. It calls for a proactive approach to ensure ETDs' long-term accessibility and reliability, urging stakeholders to prioritize and invest in preservation efforts to safeguard these critical academic resources for future generations.

## **Do More Complete Dissertations' Metadata Get More Engagement?**

**Behrooz B. Rasuli**, Iranian Research Institute For Information Science And Technology(IranDoc) , Iran

This study investigates the role of metadata quality in Electronic Theses and Dissertations (ETDs), focusing on its completeness and its impact on discoverability and user engagement within institutional repositories (IRs). Using DSpace@MIT as a case study, the current research analyzed 22,276 doctoral dissertations to assess metadata completeness and its correlation with the number of views and downloads. Various metadata fields and usage statistics were extracted for detailed analysis. The study identified a moderate positive correlation between the number of unique metadata fields and both the Department Views Ratio (DVR) and Department Download Ratio (DDR), suggesting that enhanced metadata can improve the visibility and accessibility of dissertations. Additionally, the length of abstracts is positively correlated with engagement metrics. In contrast, title length does not significantly influence the visibility.

These findings showed the importance of high-quality metadata in enhancing the discoverability of ETDs.

## **Examining the Cultural and Institutional Factors Impacting ETD Visibility in Zambia: Policy and Practice Implications**

**Mpundu Chilonga**, The University of Zambia, Zambia

This study delves into the cultural and institutional factors influencing the visibility of Electronic Theses and Dissertations (ETDs) in Zambia and their implications for policy and practice. Employing a mixed-methods research design comprising surveys, interviews, and document analysis, the research seeks to illuminate the multifaceted landscape surrounding ETD accessibility. The findings of this study unveil a nuanced understanding of the challenges and opportunities in the Zambian context. They reveal a complex interplay of cultural attitudes towards digital scholarship, institutional infrastructures, technological literacy, and policy frameworks shaping the accessibility of ETDs.

Furthermore, the study uncovers significant barriers hindering the dissemination and utilization of ETDs beyond academia. These barriers include limited digital infrastructure, inadequate institutional support, and prevailing cultural norms favouring traditional forms of knowledge dissemination. The implications of these findings underscore the need for targeted policy interventions and institutional reforms aimed at fostering a culture of open access and digital scholarship in Zambia. By addressing these cultural and institutional challenges, Zambia can harness the full potential of ETDs as valuable resources for education, research, and socioeconomic development.  
**KEYWORDS:** Digital Repositories, Resource accessibility, Research visibility

# **Unlocking the Potential of ETDs: Implementation Novel ETD Repository in Chartered Institute of Personnel Management in Sri Lanka**

**Chartered Institute Of Personnel Management , Sri Lanka,**

Introduction;

Electronic Theses and Dissertations (ETDs) represent a vital and widely utilized open-access resource for scholars and researchers globally. Within higher education, these digital versions of theses and dissertations serve as crucial reservoirs of information and knowledge for forthcoming research activities. ETDs cover both electronic versions and traditional hard copies of scholarly works submitted by researchers to their respective universities or institutions. In brief, ETD can be defined as any thesis or dissertation mainly submitted, archived, and disseminated in electronic format. The creation of ETD repositories represents a revolutionary advancement in utilizing Information and Communication Technology (ICT) to organize institutional research materials systematically, nurturing a creative platform to drive forthcoming research activities. However, in Sri Lanka, despite the growing significance of ETDs, there exists a gap in the availability and accessibility of these resources, particularly in the field of Human Resource Management (HRM). The implementation of a novel ETD repository tailored specifically for HRM research in Sri Lanka.

Objectives;

To implement novel ETD repository to serve the scholarly community to conduct novel research  
To increase the accessibility and visibility of HRM research outputs by providing a centralized platform  
To enhance the research culture and academic reputation of Sri Lanka by promoting open access to high-quality HRM scholarship through the ETD repository

Methods;

Implementing new ETD repository has become a crucial task and initiatives have already taken to upload the selected ETDs from bachelor and master level scholars. DSpace software is being used to build up the repository according to the customary needs. Copyright clearance has duly taken to host the institutional ETDs on the platform. Open access ETDs which collected through web navigation are uploaded to the repository based on the institutional curriculum. Initially, ETDs are uploaded to the repository in descending order starting from 2023 the latest. Anti-plagiarism software is being used to check the plagiarism issues in ETDs before uploading to the repository.. Metadata can be considered as an integral part of ETDs lifecycle. Thus, it is ensured to adhere

internationally recognized metadata standards such as ETD-MS, established by the Networked Digital Library of Theses and Dissertations (NDLTD).Results and Conclusion;

Quality ETDs are selected by the appointed academic committee. Moreover, proper guidance are provided to the newly enrolled students and encourage them to make use the institutional repository and come up with innovative research titles for their academic assignments. Regular awareness programmes are conducted to make the optimum use of the ETD repository and statistics are collected for annual evaluations and scholars can make comments for further improvement of the repository. This is the starting point of

the scholarly journey by way of unlocking the potential of ETDs and inviting the new generation to conduct novel research using ETD repository and find out solutions for the

burning questions in the field of HRM in the country. Moreover, this ETD repository links with Google Scholar and thereby generate Google Scholar Ranking for the research scholars who are the authors of the particular ETDs and Webometric Ranking for the hosting institute of the repository. It provides global visibility to the HRM research. It preserves valuable resources and thereby reduce the dependance on physical copies and

enables efficient search and retrieval of information. Further, ETDs contribute environmental sustainability by decreasing paper consumption. In this context, ETD repositories create a dynamic and vibrant knowledge-sharing eco system that empowers the scholarly community to thrive in their careers and contribute meaningfully to build vibrant research culture.s.

# **Landscape of Open Access Repositories with Special Reference to Electronic Theses and Dissertations (ETD) across SAARC and BRICS Nations: A Comparative Analysis**

**The University of Zambia, Zambia,**

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## **Background of the Study:**

Research Outputs stored as softcopy and archived through Open-Access is getting with momentum across the globe. Academic and Research Institutes, meticulously following the research guidelines and policies, are systematically producing and storing research results in sophisticated ETDs in almost every nation. In the digital age, global visibility of research is crucial, with Electronic Theses and Dissertations (ETDs) playing a vital role. Open Access Repositories (OARs) have gained traction, led by Europe, North America, and increasingly by Asia. Key repositories like ProQuest Dissertations Theses Global and DART-Europe are instrumental in this movement. Noteworthy ETD repositories in SAARC and BRICS nations which include Shodhganga in India maintained by INLFIBNET Centre, the Digital Archive on Agricultural Theses and Journals in Bangladesh, Pakistan Research Repository, and Biblioteca Digital Brasileira de Teses e Dissertações in Brazil. Starting little late in 2010, India gradually created its Repository and stands out for its substantial contributions to the ETD landscape. (Open ROAR). However, a few challenges remain in establishing comprehensive ETD repositories, given the diverse characteristics of these nations in terms of population size and higher education institutions. Structure and architecture of ETDs, workflow of submissions and authentication, Metadata Standards used, harvesting methods implemented, scalability and interoperability, DRM issues etc. are major concerns while comparing the ETDs across the globe. In order to find out the commonalities and differences, a detailed analysis of ETD repositories across SAARC and BRICS nations is essential.

Objectives 1. To compare open access ETD repositories in SAARC and BRICS countries, focusing on subject coverage and regional language contributions. 2. To investigate the software used for open access ETD repositories across SAARC and BRICS nations. 3. To analyze copyright policies relevant to open access ETD repositories across SAARC and BRICS nations. 4. To evaluate persistent metadata standards within the open access ETD repositories across SAARC and BRICS nations. Methodology: The available Open-Access ETD repositories under Open

ROAR/DOAR are examined for deriving the sample size for analysis. The study employs a systematic approach for ETD data collection and analysis. It identifies active ETD repositories based on accessibility and content relevance. Information on software platforms, copyright policies, metadata standards, and subject coverage are gathered. Both thematic analysis and quantitative methods are used to identify patterns and trends.

**Data Analysis:** It encompasses essential steps such as conducting thorough searches to identify active ETD repositories, gathering repository information on software platforms, copyright policies, and metadata standards, categorizing ETDs based on subject classifications and language assessment, developing a search strategy for AI-related ETDs, and performing both thematic and quantitative analyses to discern patterns and trends in the data. **Results:** The analysis shows a varied landscape of ETD repositories across SAARC and BRICS nations. India's Shodhganga is a significant contributor, reflecting the country's leadership in this area. It also highlights differences in repository management software and metadata standards, with some countries adopting more advanced systems than others. Copyright policies also vary, affecting the accessibility and use of ETDs. (Details will be available in full paper)

**Conclusion:** The analysis underscores diverse open access ETD repositories across SAARC and BRICS nations, differing in subject coverage, language representation, software, copyright policies, metadata standards, and interoperability. By spotlighting regional languages and AI research, this study suggests a democratization of knowledge access and innovation

# **A Pre-Processing Pipeline for Improved ETD Metadata Quality in Downstream Services**

**The University of Zambia, Zambia,**

Introduction:

The Zambia National Electronic Theses and Dissertations (ZNETD) Portal serves as a crucial platform for accessing Electronic Theses and Dissertations (ETDs) from Higher Education Institutions (HEIs) in Zambia. The ZNETD functions by automatically harvesting ETD metadata from HEI Institutional Repositories (IRs) across Zambia. However, its usefulness is hindered by the inconsistently formatted and poor quality of metadata. This paper outlines the core challenges surrounding metadata quality in the ZNETD Portal and proposes the implementation of a pre-processing pipeline to address metadata quality issues.

Motivation:

There are a reported 10 IRs, out of which eight (8) of them are presently functional (Chisale Phiri, 2023). The HEIs with functional repositories generally have different ingestions policies and practices, resulting in inconsistently formatted metadata. More importantly, existing studies have revealed that some HEIs lack IR policies (Kasonde Phiri, 2023).

Methodology:

The work presented in this paper involved two (2) primary objectives:  
\* Empirical evaluation of inconsistencies with ETD metadata from HEI IRs—Metadata from HEIs with functional IRs was harvested using the Open Archives Initiative Protocol for Metadata Harvesting (Open Archives Initiative Protocol for Metadata Harvesting, n.d.). The metadata elements were then analysed related to the ETD-ms metadata standard.  
\* Design and implication of an ETD metadata preprocessing pipeline—Pre-processing pipeline scripts were implemented to format metadata consistently and, additionally, to address the issue of incomplete metadata.

Anticipated Results:

It is anticipated that the implementation of the pre-processing pipeline software tool will lead to a significant improvement in metadata quality within the Zambia National ETD Portal. Enhanced metadata consistency and completeness will facilitate more efficient resource discovery and retrieval, thereby enriching the user experience and maximising the utility of the platform.

Chisale, A., Phiri, L. (2023, November 17). Towards Metadata Completeness in National ETD Portals for Improved Discoverability. <http://ir.inflibnet.ac.in/handle/1944/2446>

Kasonde, C. C., Phiri, L. (2023). Assessing

and Promoting Metadata Quality for Electronic Theses and Dissertations in Institutional Repositories Using a Policy-Driven Approach. INFLIBNET Centre, Gandhinagar. Open Archives Initiative Protocol for Metadata Harvesting. (n.d.). Retrieved May 18, 2024, from <https://www.openarchives.org/pmh>

## Posters

### **Creating an Electronic Thesis Database (ETD) using OMEKA. The Zimbabwe Open University experience**

**Nobbie Kandira**, Zimbabwe Open University, Zimbabwe

The purpose of this study was to establish the implementation experiences of the Zimbabwe Open University librarians in creating an Electronic Thesis and Dissertation Database (ETD) using OMEKA over Dspace software. The study explored the successes and challenges that were faced when coming up with the new institutional repository.

The objectives of the study were to: (i) Establish the benefits of using OMEKA over DSpace. (ii) Establish the challenges faced in implementing the new ETD database. (iii) Highlight the benefits accrued from establishing the ETD. The study was qualitative in nature and used the phenomenology paradigm. Data was collected from all Librarians and Library IT staff at the Zimbabwe Open University that were involved in the implementation of the new repository. An interview guide was drafted in order to collect responses from the target population. The study was significant in that it gave a comparison of DSpace and OMEKA as two open source software that were available on the market. Results of the study revealed that lack of trained staff was one of the major problems in creating the ETDs.

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oring AI-driven strategies for enhancing the visibility of E-Theses in Shodhganga RepositoryNabajitm SaikiaINFLIBNET Exploring AI-driven strategies for enhancing the visibility of E-Theses in Shodhganga RepositoryVivek Ranjan<sup>1</sup>, Nabajit Saikia<sup>2</sup>, Manoj Kumar K<sup>3</sup>., SurbhiShodhganga Repository, managed by the INFLIBNET Centre, serves as a national digital repository for Indian electronic theses and dissertations (ETDs). It plays a crucial role in the academic ecosystem by providing a platform for researchers to access an extensive collection of scholarly works, thereby contributing to academic and research excellence. Despite its significance, Shodhganga faces several challenges in managing ETDs, including inconsistent metadata quality, manual entry errors, and a lack of comprehensive metadata for some records. With over 500,000 theses from various universities across India and continuously increasing annually covering diverse subjects such as science, technology, humanities, and social sciences, the repository requires robust solutions to streamline its management processes and enhance user experience. AI has involved to facilitate the technological solutions in various sectors which need human intelligence. There are many areas including the creation of ETDs as well as disseminations of the knowledge by picking up knowledge snippets to help the researchers. This poster proposes the efforts and integration of Artificial Intelligence (AI) in creation and managing ETDs to addressing the challenges and improve ETD management in Shodhganga.

**Objectives**●Primary Goal: To provide a comprehensive flowchart and step-by-step implementation plan for enhancing ETD management in Shodhganga using AI, based on literature review.●Specific Objectives:  
o Illustrate AI-driven solutions for improving metadata quality and consistency.  
o Outline steps to enhance search and retrieval functionalities.  
o Present a roadmap for increasing user engagement and satisfaction.  
The implementation plan for these AI-driven solutions is divided into three phases: Research and Development, Testing as prototype, and Full-Scale Deployment. During the Research and Development phase, a detailed literature review will identify best practices in AI-driven ETD management, and current management practices in Shodhganga will be analyzed to pinpoint areas for improvement. AI models for metadata creation, search enhancement, and recommendations will be developed and tested. The Pilot Testing phase will involve implementing these solutions on a subset of ETDs, collecting user feedback, and refining the algorithms based on initial results. Finally, in the Full-Scale Deployment phase, the AI solutions will be rolled out across the entire Shodhganga repository, with continuous monitoring and iterative improvements to ensure optimal performance and adaptation to new data.  
**Expected Outcome**Integrating AI into Shodhganga's ETD management will streamline processes, reduce manual workload, and enhance efficiency. Improved search, personalized recommendations, and better metadata

will enhance user experience and discoverability. Integration with external databases will broaden research access, making Shodhganga a more valuable resource for the academic community.

Visual Elements for Poster

- Figure 1: Flowchart of AI-driven ETD Management Process
- Figure 2: Automated Metadata Extraction Flowchart
- Figure 3: Flowchart of Graph Machine Learning for Metadata Quality Enhancement
- Figure 4: Diagram Illustrating Semantic Search Implementation
- Figure 5: Diagram Depicting Personalized Recommendation System
- Figure 6: Diagram Automated Content Tagging and Classification
- Figure 7: Metadata Standardization Process Diagram
- Figure 8: Integration External Databases with Diagram Illustration
- Figure 9: Graph showing the expected outcome for the enhancement of Shodhganga References

Shodhganga, INFLIBNET Centre. Available at: [<https://shodhganga.inflibnet.ac.in/>]

# **Design and Implementation of an Interoperable Zambia National Electronic Thesis and Dissertation Portal**

**Elijah Chileshe ,** The University of Zambia, Zambia

**Introduction:** Zambia boasts a significant number of Higher Learning Institutions (HEI) contributing to a vibrant academic landscape marked by prolific scholarly research output. The Higher Education Authority (HEA) reports a total of 123 HEIs as of 2024 (Higher Education Authority, 2018). A number of the 123 HEIs offer postgraduate programmes which, in part, will require students to produce a thesis or dissertation manuscripts.

Increasingly, such manuscripts are stored in electronic form, resulting in so-called Electronic Theses and Dissertations (ETDs). Existing literature reports that a total of 10 HEIs have implemented Institutional Repositories (IRs), with eight (8) of them still functional (Chisale Phiri, 2023). **Motivation:** With the increase in the number of HEIs offering postgraduate programmes and, additionally, the rise in the adoption and implementation of IRs, discoverability of such scholarly outputs is compromised. In addition, assessment of the quality of ETDs by entities such as HEA is challenging. A potential solution to this problem is the implementation of a platform to provide centralised access to the ETDs.

**Methodology:** A national ETD portal has been implemented and primarily makes use of the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) to harvest ETD metadata from HEI IRs across Zambia. By leveraging OAI-PMH, the portal ensures efficient and standardized retrieval of metadata, enabling seamless integration of ETDs into its centralized repository. Additionally, ongoing monitoring and maintenance will be conducted to uphold the functionality and usability of the portal.

**Results:** It is expected that the centralised repository of ETDs will significantly improve accessibility to scholarly resources for researchers in Zambia. By providing a single platform for accessing ETDs from various institutions, researchers will be able to save time and effort in searching for relevant materials. It is expected that the portal will lead to increased visibility and recognition of research output from higher learning institutions in Zambia. Chisale, A., Phiri, L. (2023, November 17). Towards Metadata Completeness in National ETD Portals for Improved Discoverability. 26th International Symposium on Eletronic Theses and Dissertations. ETD 2023, Gujarat, Indian.

<http://docs.ndltd.org/metadata/etd2023/9/index.html> Higher Education Authority. (2018, January 4). Higher Education Authority. Higher Education Authority - Ensuring Quality in Higher Education; Higher Education Authority. <https://hea.org.zm>

# **Enhancing Electronic Thesis and Dissertation Visibility: A Focus on Institutional Repository Platforms and Inherent Challenges in the Nigerian Context**

**David, Okhakhu O ,** The University Of Zambia

Higher Education Institutions (HEIs) regularly publish manuscripts of academic research which provide useful insights into social, economic and technological issues affecting society (Phiri M'sendo, n.d.). In the Electronic Theses and Dissertations (ETDs) researchers often provide focus on impact-driven research that has the potential to inform policy direction. However, due to the large size of these ETD manuscripts, important stakeholders, such as local mainstream media outlets, find it difficult to synthesise the content of these manuscripts. A potential solution would be to take advantage of advances in Artificial Intelligence by using Natural Language Processing (NLP) techniques to summarise the ETDs. Automatic text summarisation as Allahyari defined it, is the task of producing a concise and fluent summary while preserving key information content and overall meaning. The text summarisation techniques can be employed to generate snippets of scholarly research output that is concise and easy to assimilate by non-technical persons. (Allahyari et al., 2017; Ingram et al., n.d.). Existing literature broadly categories automatic summarisation into two broad classes: abstractive summarisation and extractive summarisation. This study seeks to understand the challenges with synthesising ETD and design and implementation of software tools to be used to automatically summarise ETDs with a focus on mining text data and designing tools that allow for the automated summarisation and modification of the text, using usable tools. Specifically, the objectives of this study are: 1. To determine how frequently research findings are reported in mainstream media. 2. To investigate challenges with synthesising long documents (ETDs). 3. To implement summarisation models for summarising ETDs for public consumption. 4. To evaluate the summarisation models. The proposed research methodology is as follows: Frequency of publishing research findings—Manual and automatic content analysis of existing media publications will be conducted to determine the frequency of publishing research findings. Challenges synthesising ETDs—Interviews will be conducted with purposively sampled journalists from randomly sampled media outlets. Design and Implementation of ETD summarisation models—Classic text summarisation techniques such as abstractive and extractive summarisation will be employed in order to build the ETD summarisation models. Additionally, publicly available ETDs from HEIs in Zambia will be used to construct a dataset to be used during the study. Evaluation of ETD summarisation models—Standard evaluation metrics for text summarisation, such as ROUGE (Johnson, n.d.); BLEU (Allahyari et al., 2017; Johnson, n.d.); BERTScore (Bhandari et al., 2020; Zhang et al., n.d.) and METEOR (Ermakova et al., 2019; Johnson, n.d.), will be used to determine the effectiveness of the ETD summarisation models. In addition human evaluation will be employed to determine the perceived usefulness of the ETD summarisation models. The

study could potentially provide useful information on the challenges of enabling the general public to engage with ETDs and how the application of NLP and automatic text summarisation can help overcome some of the challenges.

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I Quality Management in ETD Repository at Chartered Institute Management (CIPM)Kamani Perera Chartered Institute of Personnel Management Introduction: As the landscape of education and professional development evolves, the use of Electronic Theses and Dissertations (ETDs) has become integral to knowledge dissemination and research advancement. The Chartered Institute of Personnel Management (CIPM) recognizes the significance of its ETD repository as a valuable resource for HRM professionals. This study focuses on implementing Total Quality Management (TQM) principles in the ETD repository at CIPM to ensure efficiency, accessibility, and the highest standards of content.

Objectives: 1. To identify the areas for improvement through TQM principles 2. To assess the impact of these enhancements on user experience and knowledge dissemination 3. To make recommendations to improve the quality of ETD repositories in order to provide effective service to the CIPM stakeholders

Methodology: A comprehensive approach was employed, starting with an analysis of the existing ETD repository at CIPM to identify strengths and areas needing improvement. TQM principles were then applied, including process mapping, stakeholder engagement, and continuous improvement strategies. A survey was conducted among HRM professionals and researchers utilizing the ETD repository to gather feedback on usability, content relevance, and accessibility. Additionally, interviews were conducted with repository administrators and stakeholders to gain insights into challenges and opportunities for enhancement. Results: The assessment of the ETD repository at CIPM revealed strengths in terms of content variety and relevance to HRM professionals. However, areas for improvement were identified, including navigation complexity, search functionality, and metadata consistency. Through the application of TQM principles, enhancements were implemented, such as improved metadata tagging, streamlined search features, and user-friendly interface updates. The survey results indicated a positive reception to these enhancements, with users reporting increased satisfaction with the repository's usability and content accessibility.

Conclusions: In conclusion, this study highlights the importance of implementing TQM principles in the ETD repository at CIPM to ensure it remains a valuable and user-centric resource for HRM professionals. The enhancements made through this process have resulted in a more efficient and user-friendly repository, aligning with the institute's commitment to excellence in knowledge dissemination. Recommendations include regular audits of the repository, ongoing stakeholder engagement, and continuous improvement initiatives to uphold TQM standards. By embracing TQM in the ETD repository, CIPM

can continue to support the research and professional development needs of HRM professionals, contributing to the advancement of the field. This research serves as a model for other organizations seeking to optimize their ETD repositories through TQM principles, ultimately fostering a culture of quality and innovation in knowledge management within the HRM community.

# **Enhancing Electronic Thesis and Dissertation Visibility: A Focus on Institutional Repository Platforms and Inherent Challenges in the Nigerian Context**

**David, Okhakhu O ,** Lead City University, Ibadan

Electronic Theses and Dissertations (ETDs) are an essential part of academic work since they provide insightful analysis and significant contributions to the international academic community. Platforms for institutional repositories (IRs) are vital conduits for the international distribution and availability of ETDs. However, there is a notable disparity in the visibility and accessibility of ETDs due to particular difficulties with the implementation and efficacy of IR platforms in Nigerian institutions. With a focus on the difficulties Nigerian institutions confront, this paper examines how institutional repository platforms might improve the visibility of ETDs globally. The study emphasises the transformative potential of IR platforms in boosting the impact and dissemination of ETDs through a comprehensive evaluation of the literature. It also emphasises how critical it is to fill up the knowledge vacuum in the literature about the application and efficacy of IR platforms in Nigerian academic institutions.

This study used a mixed-methods approach, combining qualitative investigation through stakeholder surveys and interviews with Nigerian institutions' stakeholders with quantitative analysis of IR availability and usage data. The quantitative analysis looks at IR availability, citation counts, download trends, and ETD submission rates on IR platforms to get a sense of how visible Nigerian ETDs are right now. Qualitative approaches explore the particular obstacles Nigerian institutions have in efficiently leveraging IR platforms, such as infrastructure limits, institutional support, cultural considerations, and knowledge gaps. Compiling quantitative and qualitative data allows for a more thorough understanding of the intricate relationships surrounding ETD deployment and visibility in Nigerian context. The study exposes inherent challenges to the efficient use of IR platforms. These results demonstrate how urgently customised interventions are needed to solve these issues and raise Nigerian ETDs' profile internationally. The study makes further recommendations based on its findings on the use of IR platforms in Nigerian institutions. These recommendations include making investments in technology infrastructure, starting capacity-building programmes, proposing a cultural mind shift, advocating for open access laws in policy, and encouraging stakeholder collaboration. Through implementation of these suggestions, Nigerian establishments can surmount current obstacles and utilise IR channels to augment the prominence and influence of their ETDs on the international academic scene.

This study clarifies the unique difficulties encountered by Nigerian institutions while also enhancing knowledge of the function of institutional repository platforms in increasing ETD visibility. Through the implementation of focused interventions and the resolution of these issues, stakeholders can strive to promote increased inclusivity and involvement in the worldwide ecosystem of academic communication.

**Keywords:** Nigerian Electronic Theses and Dissertations (ETDs),

Institutional Repository Challenges, Global Research Visibility Gap, Open Access Scholarship, Digital Divide Impact, Nigeria Universities.

### **A random abstract title**

J. Doe, *Bournemouth University, UK*

## **Invited Talks**

# List of Participants

Austin Mclean	ProQuest, a part of Clarivate	United States	
Benaiah Akombwa	University of Zambia	Zambia	
Bertrand Thomas	Abes	France	
Boniface Banda	The University of Zambia	Zambia	
Charles Greenberg	Networked Digital Library of Theses and Dissertations	United States	
Denny Nsokolo	Higher Education Authority	Zambia	
Edward Fox	Networked Digital Library of Theses and Dissertations	United States	
Ernest Banda	Zynle Technologies Limited	Zambia	
Gabriela Mejias	DataCite	Germany	
Hussein Suleman	University of Cape Town	South Africa	
Johanssen Obanda	Crossref	Kenya	
Josiline Chigwada	University of South Africa	South Africa	
Kudakwashe Siziva	Datacite	South Africa	
Lamia Salsabil	Old Dominion University	United States	
Lombe Tembo	ORCID	Zambia	
Manoj Kumar K	INFLIBNET Centre	India	
Martin Nkumbula	Zynle Technologies Limited	Zambia	
Marvin Kabubi	Information and Communications University	Zambia	
Mduduзи Ntetha	Aubrey	University of South Africa	South Africa
Moses Mupeta	Information and communications university	Zambia	
Olatunbosun Obileye	DataCite	Nigeria	
Olivier Cian	ABES	France	
Shahzeb Hasan	Akal University	India	
Vivek Ranjan	Silver Oak University	India	
Wendel Fabian Chinsamy	DataCite	South Africa	

# Useful Information

The ETD 2024 conference activities will be held at Avani Victoria Falls' **Convention Centre**.

**Tea/Coffee breaks and lunches** will be offered during the conference.

The **poster session** will be held on Wednesday, November 6 2024 and will comprise of a "**one minute madness**", followed by a textbfPoster Session with Tea/Coffee.

Wi-Fi will be available during the conference. The Zambia Research and Education Network will also provides access to an eduroam network throughout the duration of the conference.

The **conference welcome reception** will be held at the **Mukuni BOMA Village**, , on the banks of the Zambezi River.

## How to get to the Avani Victoria Falls Resort?

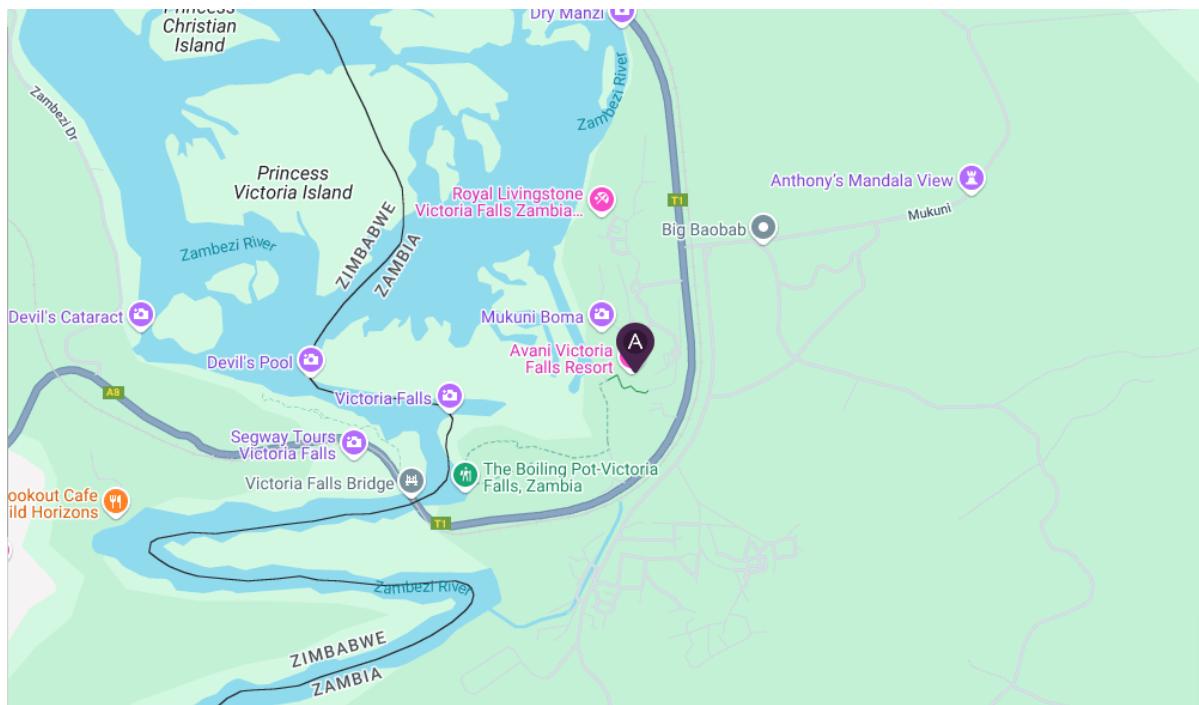
Avani Victoria Falls Resort is located on the banks of the Zambezi river with a 5-minute walk direct access to Victoria Falls.

- **Air:** From Lusaka, Kenneth Kaunda International Airport, you can fly directly to Livingstone, Harry Mwaanga Nkumbula International Airport (formerly known as Livingstone Airport). Flights are available with Proflight Zambia (daily flights) or Zambia Airways (daily flights). The journey takes around 1 hour and 10 minutes. Harry Mwaanga Nkumbula International Airport in Livingstone also has direct flights from Johannesburg (JNB), Cape Town (CPT) and Nairobi (NBO), (South Africa and Kenya). Note that the most frequent flights to Livingstone are routes from Lusaka (LUN), domestic, and Johannesburg (JNB), South Africa, with an average of 6 flights per day.
- **Bus:** Various long-distance buses operate daily between Lusaka and Livingstone. Buses leave Lusaka from 6:00 am and every half hour thereafter until 11.30 am. The journey takes around 6 to 7 hours.

- **Getting Around:**

- **Taxis:** Taxis are readily available and can be hired for specific trips, for a half-day or for a full-day.
- **Local mini-buses:** There is a network of local mini buses that connect various parts of Livingstone.

## Avani Victoria Falls Resort: Google Maps Location



# Avani Victoria Falls Resort: Convention Centre Layout

