

South African HE Libraries as Catalysts for SDG Impact: Strategies for Access, Collaboration, and Societal Engagement

2nd Biennial TUT LIS Transformative Summit, 28-29 August 2025

**Higher Education Institutions (HEIs),
libraries, Sustainable Development Goals
(SDGs), and Artificial Intelligence (AI) is a
nexus where innovation meets purpose**



HEIs & AI for Sustainable Development

HEIs are uniquely positioned to lead the charge in using AI to accelerate progress toward the SDGs. According to the UN HESI Action Group:

- ❑ **AI is reshaping education:** Generative AI tools like ChatGPT are prompting HEIs to rethink teaching, research, and administration.
- ❑ **SDG urgency:** Only 15% of SDG targets are on track for 2030, with nearly half showing no progress or regression.
- ❑ **HEIs as changemakers:** They can harness AI to tackle global challenges – SDGs 1-17

Libraries as AI-Enhanced Knowledge Hubs

As academic libraries we need to evolve and provide repositories as dynamic engines of innovation:

- ❑ AI-powered services: Smart cataloguing, personalised research recommendations, and predictive analytics for Research Visibility and Impact.**
- ❑ Open access & data stewardship: Libraries need to champion open science and FAIR data principles, aligning with SDG 4 (Quality Education) and SDG 9 (Industry, Innovation, Infrastructure).**
- ❑ Digital equity: By providing inclusive access to AI tools and digital resources, libraries will help bridge the technological divide.**



SA's Academic Libraries & SDGs Impact

- ❑ Promote open access to research and data
- ❑ Facilitate community development through dissemination of publicly funded research outputs – publications and datasets
- ❑ Encouraging sustainable practices in education and research

Therefore all South African academic libraries should actively align their services and outreach with the UN's Sustainable Development Goals (SDGs), particularly through community engagement, access to information, and digital inclusion

Promoting Open Access: Democratizing Knowledge

- ❑ Institutional Repositories: that archive theses, articles, and datasets (WiredSpace & Wits Open Data Vault)
- ❑ Open Journal Systems: that support platforms that publish institutional peer-reviewed research without paywalls – Wits Journals (Open Journal System)
- ❑ Data Stewardship: to train researchers/postgraduate students in FAIR data principles (Findable, Accessible, Interoperable, Reusable), i.e. Wits Doctoral Academy and GOLD (The Wits Graduate Online Learning and Development (GOLD) Programme)

Challenges & Opportunities

Challenges:

- o Funding constraints
- o Digital divide
- o Policy alignment – institutional/national/global

Opportunities:

- o National SDG strategies, i.e. SDGs Tracking Platform
- o AI and data analytics
- o Strengthening community partnerships and collaborations (institutional collo

Improved Discoverability of Institutional Research Outputs (SDG resources)

- ❑ Tagging and indexing research outputs with SDG-related keywords (e.g. “climate resilience,” “gender equity,” “clean energy”) helps research community to find relevant content faster.
- ❑ Linking metadata to SDG indicators allows researchers and policymakers to track contributions to specific goals.
- ❑ Enhanced cataloguing of grey literature, datasets, and community projects ensures that non-traditional knowledge is also accessible (e.g. including Archives and Special Collections)

Supporting Data Management & Reuse

- ❑ Metadata for datasets ensures that SDG-related data is findable, accessible, interoperable, and reusable (FAIR principles).
- ❑ Persistent identifiers (like DOIs and ORCID iDs) help track the impact of SDG research across disciplines and borders.

Enabling Innovation & Decision-Making

- ❑ Analytics from metadata can reveal trends, gaps, and emerging areas in SDG research.

Facilitating Interdisciplinary Collaboration

- ❑ Metadata harmonization across disciplines (e.g. education, economics, public health) enables integrated SDG solutions.
- ❑ Linked data and semantic web technologies allow libraries to connect diverse resources into meaningful knowledge graphs.
- ❑ Metadata-driven discovery tools can recommend SDG-aligned collaborators, projects, or funding opportunities.
- ❑ Metadata dashboards can help institutions monitor their contributions to sustainability goals.

The Way Forward

- ❑ Embed SDG goals into library strategic plans
- ❑ Advocate and review open access policies at institutional level and benchmark global
- ❑ Train faculty librarians as **SDG ambassadors**
- ❑ Measure impact through **SDG-aligned metrics**
- ❑ Make institutional repositories trusted platforms for publishing SDG-related research openly
- ❑ Support for open data initiatives that align with transparency and global collaboration
- ❑ Guidance on publishing in open-access journals/datasets to increase visibility of institutional research
- ❑ Training in data visualization and GIS tools to map and analyse SDG progress

SA HE libraries adding value to the academic projects - Implementation open publishing platforms



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Search the repository ...

Search

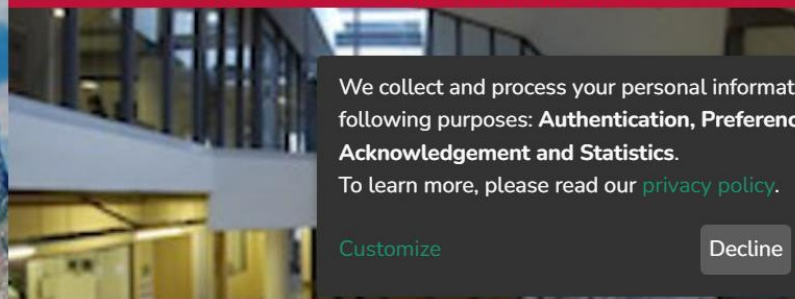
OpenUCT is the open access institutional repository of the University of Cape Town (UCT). It preserves and makes UCT scholarly outputs digitally and freely available, including theses and dissertations, journal articles, book chapters, technical and research reports, as well as open educational resources.

Research Output



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OJS JOURNALS

The UJ Library and UJ Press support open access publishing and the dissemination of information through open access platforms. Part of our mission at the UJ Library and UJ Press is to support research in any way that we can. We host journals for any institution and support editors in hosting and managing their journals. The UJ Library Open Journal System (OJS) is the digital platform on which these journals are hosted and managed by UJ Press. Journals who wish to join the platform may contact the press for assistance an inclusion criteria (ujpress@uj.ac.za).



African Journal of Gender and Religion

The *AJGR* is an online, peer-reviewed, open-access journal for the transdisciplinary study of gender and religion in Africa. The *AJGR* is housed in The Desmond Tutu Centre for Religion and Social Justice at the University of the Western Cape. The journal seeks ...

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The *African Journal of Political Science* is the flagship publication of the African Association of Political Science. It is an open-access and strictly peer-reviewed academic journal dedicated to the study of the political in all its dimensions and permutatio ...

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21 Journals titles managed by UJ Libraries & UJ Press

Expanding the research of Wits Research Publications

WIReDSpace

Welcome WIReDSpace(to Wits Institutional Repository on DSpace)

For queries relating to content and technical issues, please contact IR specialists via this email address : openscholarship.library@wits.ac.za, Tel: 011 717 4652 or 011 717 1954

Wits Open Data Vault: FigShare

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**Wits Open Data Vault**

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Metadata Enrichment: Repository Content – CPUT vs TUT

Wits Retrospective *Research Outputs*

PUBLICATIONS

75,319

DATASETS

57,120

GRANTS

20,749

PATENTS

734

CLINICAL TRIALS

362

P

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University of the Witwatersrand

Johannesburg, South Africa

[View Details](#)

Publications

75,319

Datasets

57,120

Grants

20,749

Patents

734

Clinical Trials

362

Funding amount
USD 1.16 B



Publications & Datasets – Research Categories



Cape Peninsula University of Technology

Cape Town, South Africa

[View Details](#)

Publications

5,314

Datasets

1,212

Grants

2,827

Patents

35

Clinical Trials

2

Funding amount
USD 6.18 M



Dimensions

A Digital Science Solution

Source: 2025/08/28



Tshwane University of Technology

Pretoria, South Africa

[View Details](#)

Publications

9,760

Datasets

196

Grants

2,005

Patents

131

Clinical Trials

1

Funding amount
USD 18.73 M



CPUT

Name	Publicat...	Citations	Citations mean
Closed	2,687	40,607	15.11
All OA	2,627	40,381	15.37
Gold	1,936	24,127	12.46
Hybrid	338	11,049	32.69
Green	200	2,378	11.89
Bronze	153	2,827	18.48

Total of Publications = 5314

TUT

Publicat...	Citations	Citations mean
5,612	110,171	19.63
4,148	61,136	14.74
3,136	42,214	13.46
581	10,624	18.29
226	3,899	17.25
205	4,399	21.46

Total of Publications = 9760

Metadata Enrichment

Kidney transplantation in Africa – workforce, capabilities, and perceived barriers

[Cite](#)[Download \(184.5 kB\)](#)[Share](#)[Embed](#)[+ Collect](#)[...](#)

Dataset posted on 2025-06-09, 12:49 authored by [Malcolm Davies](#), Malcolm Davies

This database of African Association of Nephrology (AFRAN) members was collected under conditions of anonymous voluntary participation using AFRAN SoME (social media) platforms. The database describes training and clinical practice in kidney transplantation, local transplantation programme capability, and perceived barriers to kidney transplantation on the African continent

HISTORY

- 2025-06-09 - First online date, Posted date

GROUP AFFILIATED WITH

- Faculty of Health Science

LANGUAGE

Eng

SUSTAINABLE DEVELOPMENT GOAL (SDG)

- SDG-3: Good health and well-being

AUTHOR URL

0000-0003-0367-3051

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8
views

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citations



CATEGORIES

- [Health sciences](#)
- [Health services and systems](#)

KEYWORDS

Kidney transplantation

Transplantation nephrologist

Transplantation programme activity

Barriers to transplantation

Nephrologist training

Africa

LICENCE



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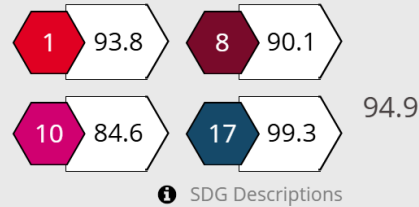


Wits vs. other SA HEIs – 2025: SDGs

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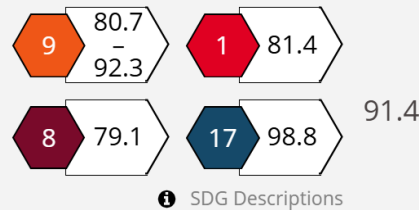
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Johannesburg
📍 South Africa



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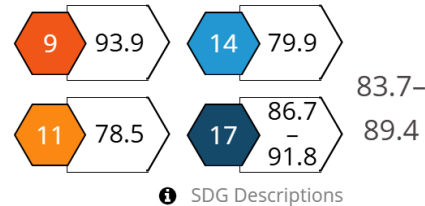
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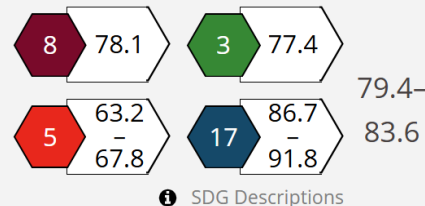
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Managing Access to Open Repositories in the Age of Generative AI

Martin Klein

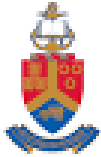
martin.klein@pnnl.gov

<https://orcid.org/0000-0003-0130-2097>

With slides and input from
Kathleen Shearer and Paul Walk

New LIS Perspective – on other Conferences





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YUNIBESITHI YA PRETORIA

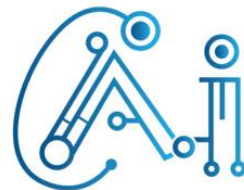
African Institute for Data Science and Artificial Intelligence (AfriDSAI)

Afrika-instituut vir Datawetenskap en
Kunsmatige Intelligensie / Institute ya Afrika
ya Disaense tša Data le Bohlale bja Maitirelo

MIND

Machine Intelligence and
Neural Discovery Institute

wits.ai



Artificial Intelligence Institute of South Africa



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How to Make Artificial Intelligence Work for Africa.

HIT Public Lecture by Prof.

Arthur G. Mutambara

<https://www.youtube.com/watch?v=ATSc6EtptT0>



Thank You

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