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# Academic Libraries as Catalysts: Amplifying Research Visibility and SDGs Impact in South African Higher Education

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UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

# Academic Libraries as Catalysts: Amplifying Research Visibility and SDGs Impact in South African Higher Education

Nelson Mandela University Research Day, 12 September 2025

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# Introduction

- Libraries are no longer just repositories - they are strategic enablers of research excellence.
- In the context of South Africa's development goals and global SDGs, libraries play a pivotal role in shaping research visibility and societal impact.

# Libraries and the SDGs

- Libraries support SDG 4 (Quality Education), SDG 9 (Industry, Innovation, Infrastructure), and SDG 17 (Partnerships).
- By curating, disseminating, and preserving research, libraries help translate academic work into societal benefit.
- Example: Open access to climate research supports SDG 13 (Climate Action).

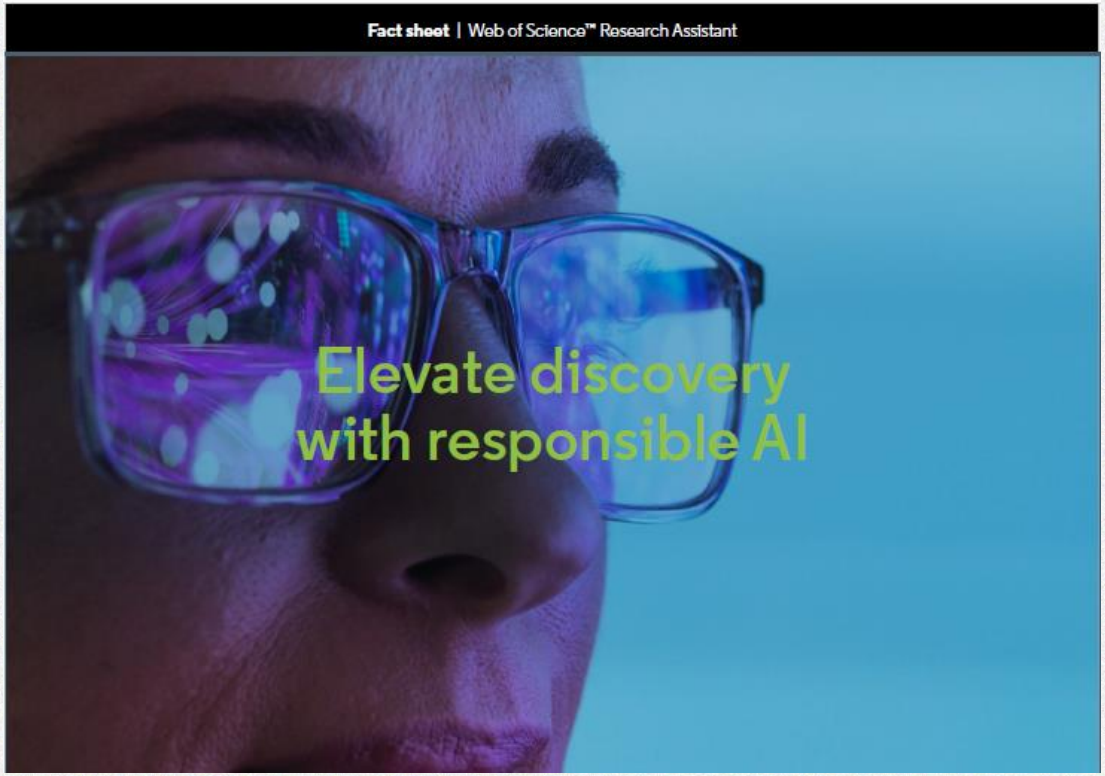
# Key Trends in SA Higher Education




- Growth of Open Access publishing and institutional repositories.
- Increasing adoption of research metrics and altmetrics.
- Integration of research information systems (e.g., ORCID, DOIs (publications, Datasets), RIMS).
- Emphasis on research impact in national funding frameworks (e.g., DHET, NRF, NDP 2030).

# Tools Empowering Libraries & Research

- Repositories: DSpace, Dataverse, Fedora…
- Discovery Platforms: WorldCat, Google Scholar, Scopus.
- Impact Tools: Altmetric Explorer, Dimensions, PlumX.
- AI Writing Tools: Scopus AI, Trinka, WoS Research Assistant
- Collaboration Tools: ORCID, Crossref, DataCite, OSF.



TRINKA
by enago

Recognizes by **Gartner®**
as an "Emerging Visionary" for
Generative AI Technologies.



# DocuMark:
# Anti-cheating Solution for Academic Integrity

Identify AI content and
safeguard university reputation

trinka.ai

# What makes DocuMark Different?

- ✓ Students review & verify their AI use
- ✓ Reduces teachers' stress of AI detection
- ✓ Re-focus on learning outcomes

trinka.ai

TRINKA by enago

## overall score

Reflects the student's effort and amount of reviews done on copied & AI content; just like a plagiarism score.

## source of writing

Provides clear insights on how the content is created by identifying the sources and prompts used.

## verification & ownership

Students either verify the unchanged AI content or put in the efforts to review and revise their AI content substantially, thereby taking ownership before submission.

## CheatGuard pattern analytics engine

Flags cheating behavioral signals such as error rates, thinking pauses & frequency, backspace use, and repeated corrections.





# AI & HEIs 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

# SA's Academic Libraries & SDGs Impact

- Promote open access to research and data
- Facilitate community development through the 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:** a support platform that publishes institutional peer-reviewed research without paywalls – Wits Open Journals (WOJs platform still to be launched)
- Publishing through the **SANLiC Transformative Agreements**
- **Research Data Management:** to train researchers or postgraduate students on FAIR data principles (Findable, Accessible, Interoperable, Reusable), i.e., **Wits Doctoral Academy** and **GOLD** (Wits Graduate Online Learning and Development) programme – **Wits Open Data Vault Platform** (to be launched in October 2025)

# 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 the research community to find relevant content faster.
- Linking metadata to SDG indicators allows tracking 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
- Persistent identifiers (like DOIs and ORCID iDs) help track the impact of SDG research across disciplines and borders.
- Analytics from metadata can reveal trends, gaps, and emerging areas in SDGs research activities.

# Facilitating Interdisciplinary Collaboration (Dimension, Altmetric Explorer)

Metadata harmonization across disciplines (e.g., education, economics, public health) enables the development of integrated SDG solutions.

- Linked data and semantic web technologies allow libraries to connect diverse resources into meaningful **knowledge bases.**
- Metadata-driven discovery tools can recommend SDG-aligned collaborators, projects, or funding opportunities.
- Metadata dashboards can help institutions monitor their contributions to sustainability goals.






# SA HEIs  Libraries - Implementation of open publishing platforms

# OpenUCT

Communities & Collections | Browse OpenUCT | Statistics | Log In

All of OpenUCT | Search the repository ... | Search

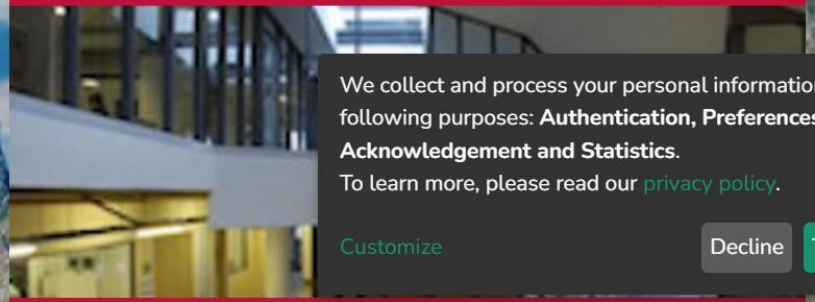
**OpenUCT is the open access institutional repository of the University of Cape Town (UCT). It preserves and makes UCT scholarly outputs digitally and freely available, including theses and dissertations, journal articles, book chapters, technical and research reports, as well as open educational resources.**

## Research Output



View collections

## Theses & Dissertations



View collections

We collect and process your personal information for the following purposes: **Authentication, Preferences, Acknowledgement and Statistics**.
To learn more, please read our privacy policy.

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# UJ Press Journals

UNIVERSITY OF JOHANNESBURG

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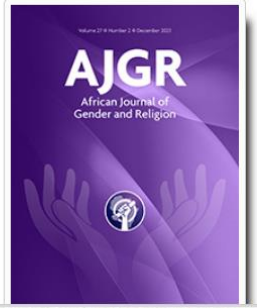
## OJS JOURNALS

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 ...

View Journal | Current Issue | Submissions




### African Journal of Political Science

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 ...

View Journal | Current Issue | Submissions

**21 Journals titles managed by UJ Libraries & UJ Press**

100 1922 2022

# Nelson Mandela University
# Almetric Analytics

# Publications & Datasets

## Nelson Mandela University

Port Elizabeth, South Africa

View Details

| Publications | Datasets | Grants | Patents | Clinical Trials |
|---|---|---|---|---|
| 11,353 | 1,880 | 7,017 | 248 | 6 |

Funding amount
USD 94.38 M

## Rhodes University

Grahamstown, South Africa

View Details

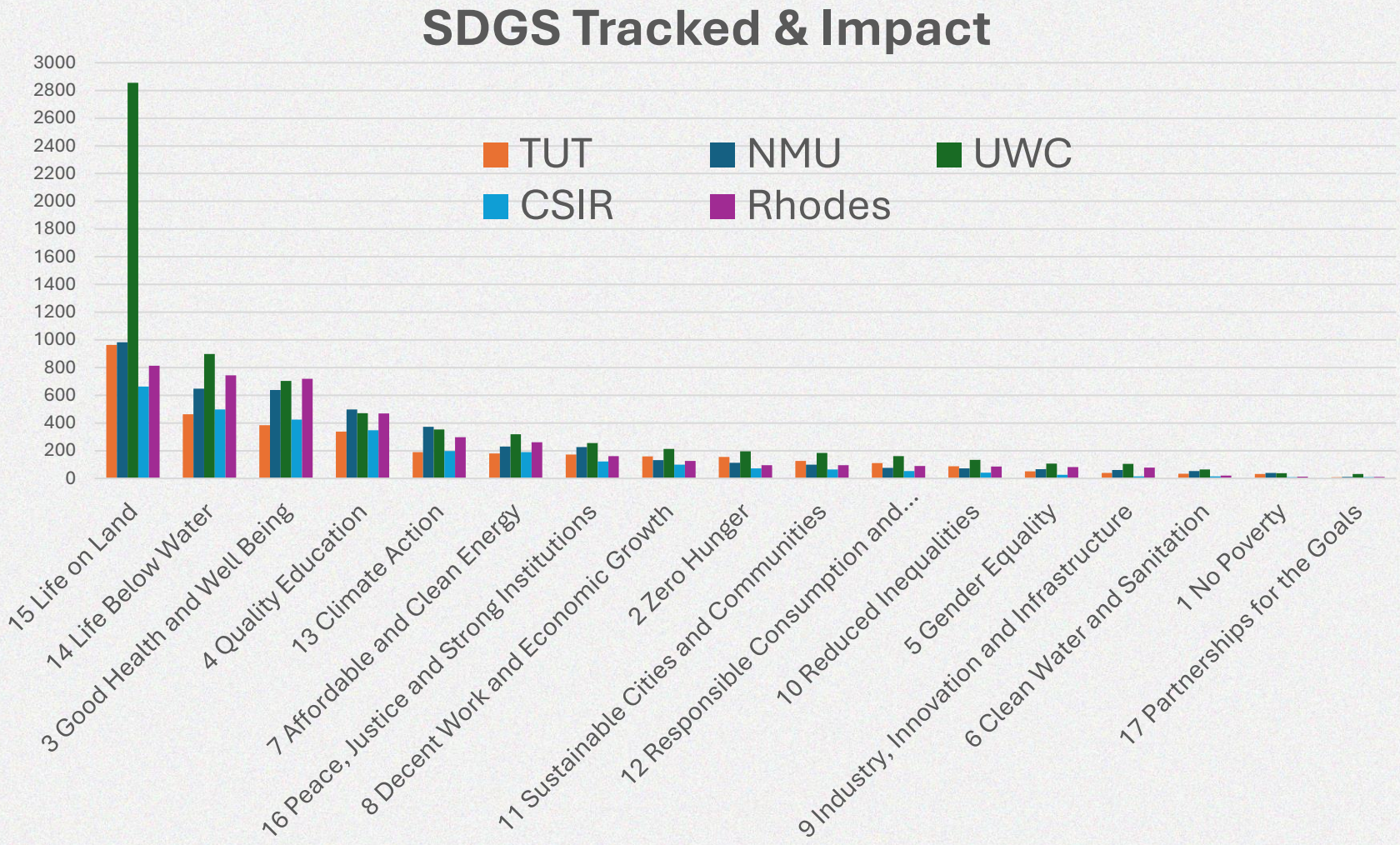
| Publications | Datasets | Grants | Patents | Clinical Trials |
|---|---|---|---|---|
| 16,039 | 994 | 7,561 | 54 | 2 |

Funding amount
USD 112.14 M

Source: 2025/09/11

Dimensions
A **Digital Science** Solution

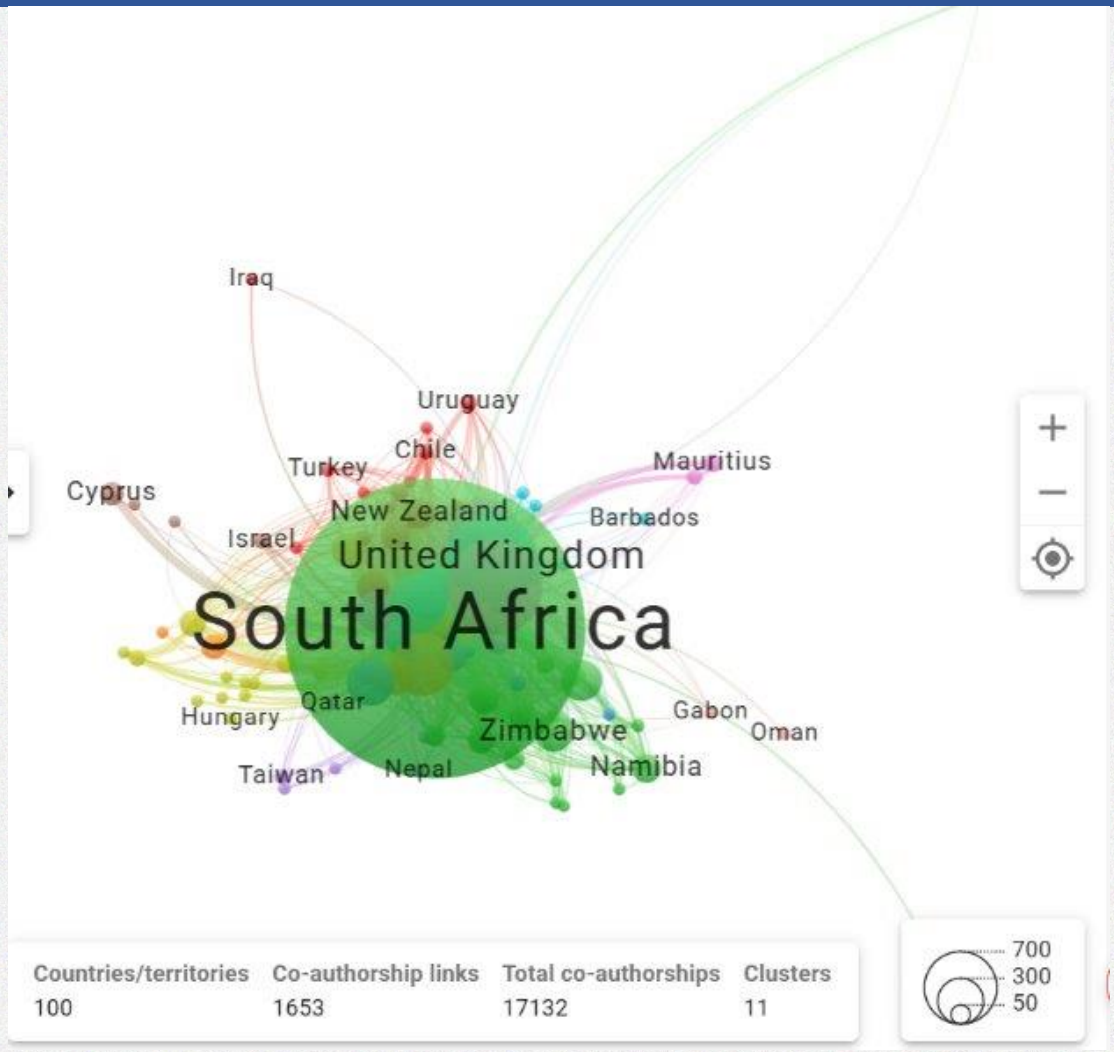
# NMU vs Others




Source: 2025/09/11

Dimensions
A **Digital Science** Solution

# NMU vs Others




Source: 2025/09/11

Dimensions
A Digital Science Solution

# NMU: Alternative Metrics

**Total mentions**
74,321

**Outputs with attention**
3,785

**Total outputs tracked**
5,217

Attention breakdown



**Social media**
59,094 mentions

**News and blogs**
11,947 mentions

**Policy, patents and guidelines**
1,838 mentions

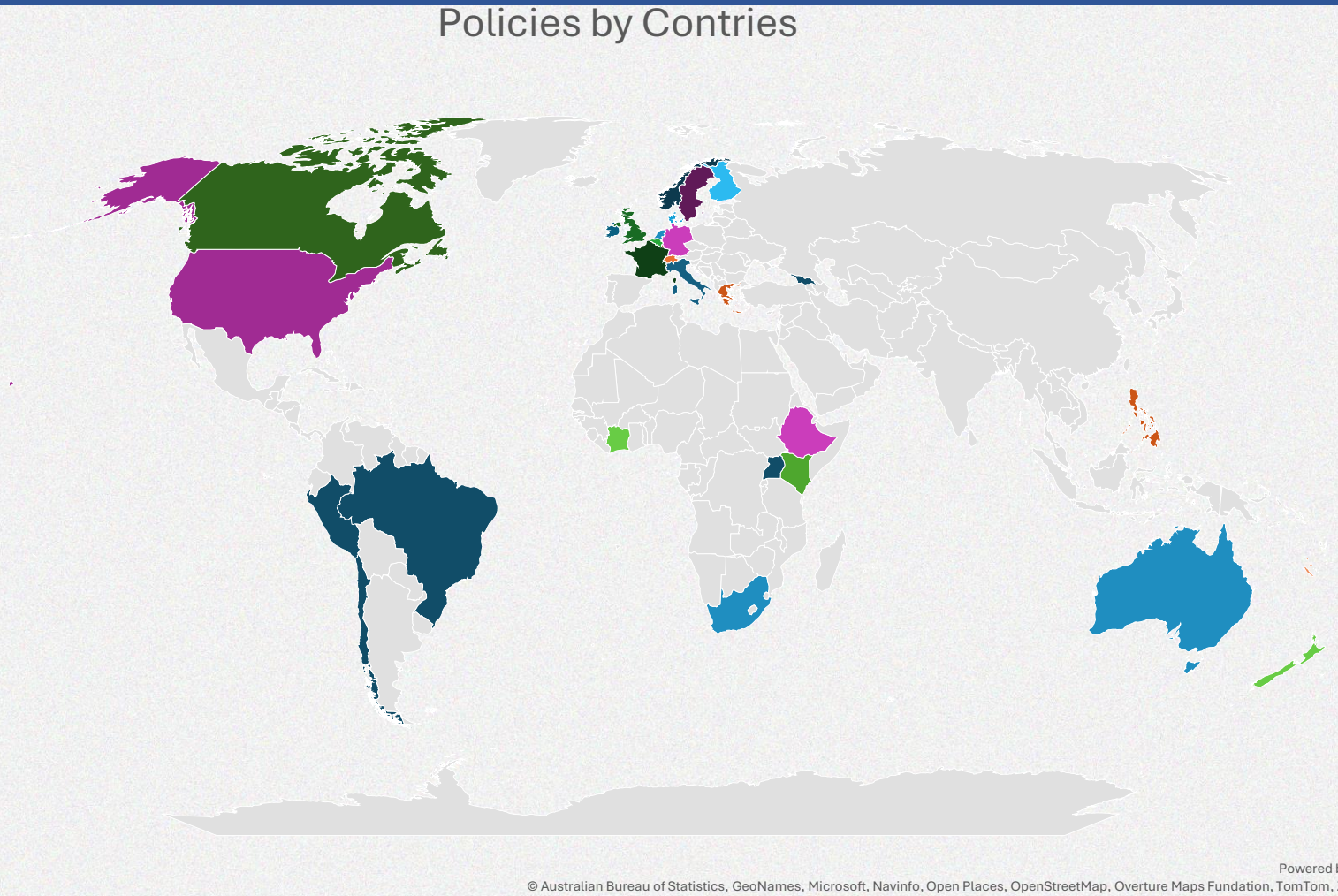
**Other sources**
1,288 mentions

**Academic sources**
154 mentions

Source: 2025/09/11

Dimensions
A **Digital Science** Solution

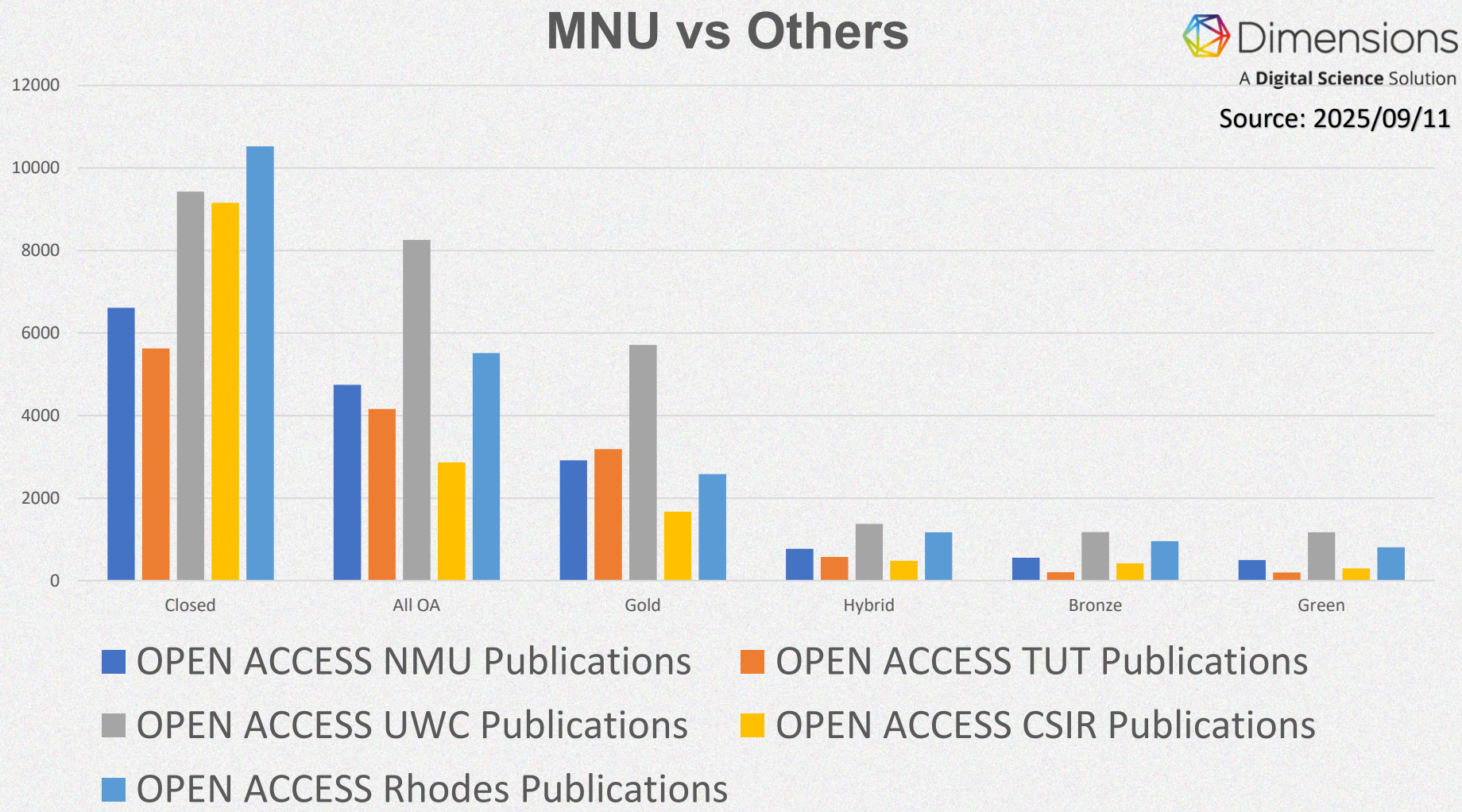
# NMU: Alternative Metrics




Source: 2025/09/11

Dimensions
A **Digital Science** Solution

# Open Access Publications



# University of Wits: Library Strategy to Enhance RVI

- Researchers
- Schools
- Faculties
- University

# Wits Retrospective *Research* Outputs

| PUBLICATIONS | **DATASETS** | GRANTS | PATENTS | CLINICAL TRIALS | P |
|---|---|---|---|---|---|
| 75,319 | **57,120** | 20,749 | 734 | 362 | 0 |

**University of the Witwatersrand**

Johannesburg, South Africa

View Details

| Publications | Datasets | Grants | Patents | Clinical Trials |
|---|---|---|---|---|
| 75,319 | 57,120 | 20,749 | 734 | 362 |

Funding amount
USD 1.16 B

# 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

USAGE METRICS

| 8 views | 1 downloads | 0 citations |
|---|---|---|

Wits Open Data Vault

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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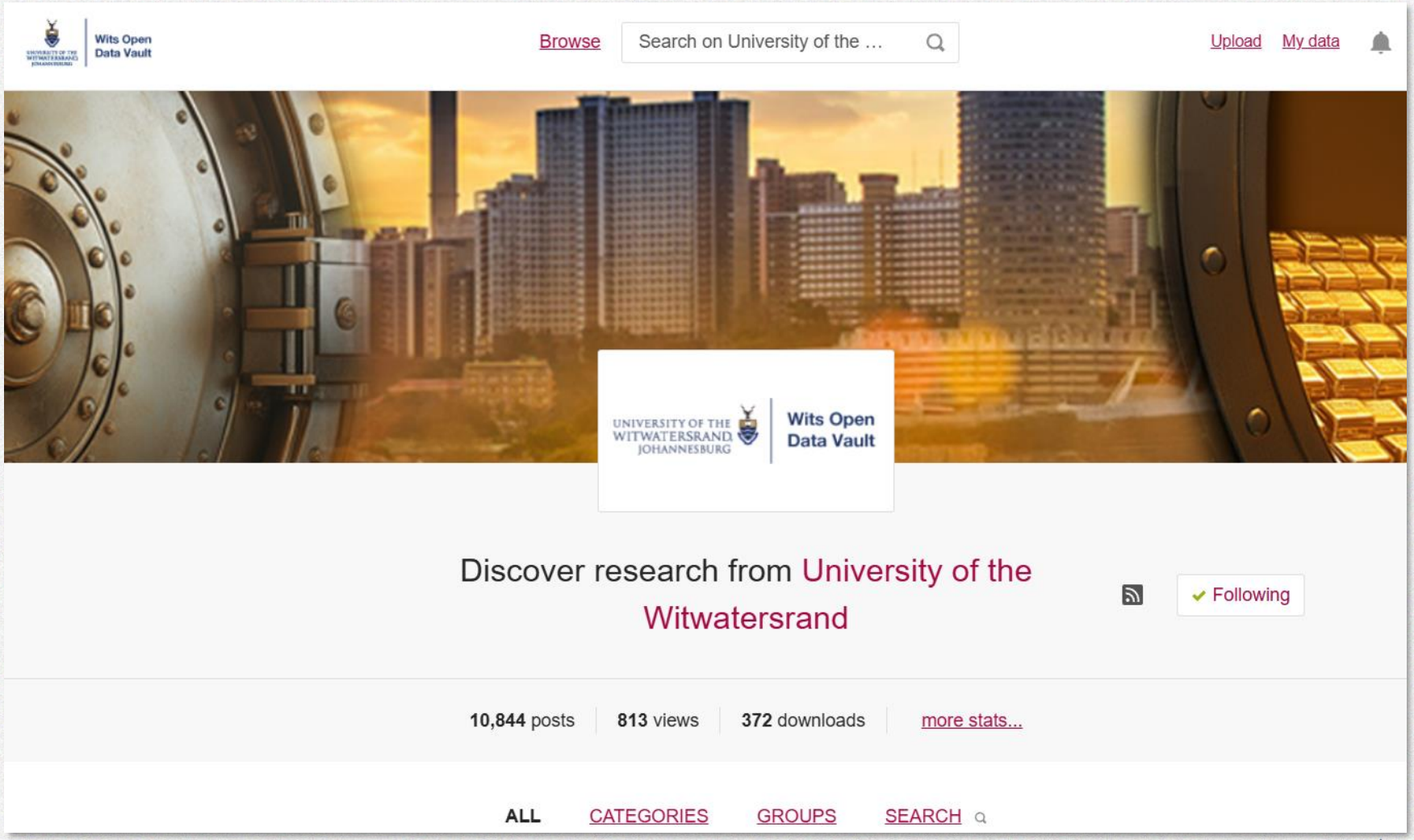
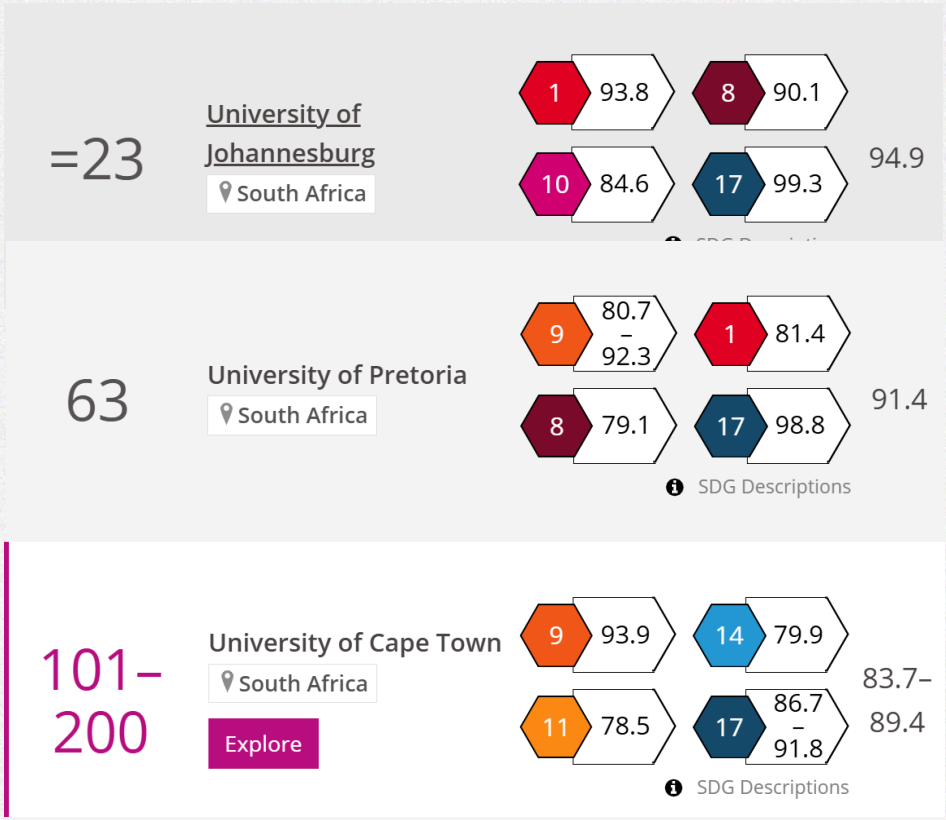
# Expanding the research of Wits Research Publications



# Wits Open Data Vault: FigShare



# Wits vs. other SA HEIs – 2025: SDGs Rankings



# Managing Access to Open Repositories in the Age of Generative AI

**Martin Klein**
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With slides and input from
Kathleen Shearer and Paul Walk

# Case Studies

- University of Pretoria: SDGs Hub-aligned repositories tagging and indexing
- Stellenbosch University: Integration of PURE with library repository systems.
- UCT Libraries OJS, UJ Libraries OJS, UP OJS, and Stellenbosch OJS publishing platforms.
- African Open Research Visibility and Impact Check Tool (L. Matizirofa, PhD Thesis)

South African SDG Hub

# Thank You

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