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FIGSHARE CASE STUDY: Wits Libraries' use of Digital Science solutions to support the university's impact and innovation strategy

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FIGSHARE CASE STUDY:

Wits Libraries' use of Digital Science solutions to support the university's impact and innovation strategy



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Figshare Case Studies: Wits Libraries' use of Digital Science solutions to support the university's impact and innovation strategy

-  **Wits Libraries Strategic Framework for Impact**
-  **Administrative Control and Funder Compliance**
-  **Granular Metrics for Data Impact**
-  **Enhancing Researcher Visibility via Figshare Integration**
-  **Tracking Research Journey from Inputs to Outcomes**
-  **Measuring Sustainable Development Goals Impact**
-  **Defensible Metrics and Expert Judgment**
-  **Wits Open Data Vault for Research Excellence**
-  **Transforming Library Functions and Staff Engagement**
-  **Beyond Citations with Dimensions and Altmeteric**
-  **Altmeterics as a Complementary Impact Indicator**
-  **Strategic Evidence for Funding Opportunities**
-  **Institutional Evaluation and Peer Benchmarking**



Wits Libraries Strategic Framework for Impact

- **Research Excellence**

Elevating the quality and rigour of Wits research through best-in-class data management and curation.

- **Institutional Visibility**

Enhancing global recognition and reach by showcasing institutional research outputs in a discoverable ecosystem.

- **Strategic Evidence**

Providing robust data for funding, SDGs, and rankings to support university innovation and impact reporting.

Wits ranked No.1 in Sub-Saharan Africa for Innovation



Digital Science Integrated Ecosystem

Figshare (Research Data Management)

Core

Dimensions (Research Insights)

Integrated

Altmetric (Impact Tracking)

Integrated

Synergistic Power

These tools are most effective when utilised together as an integrated ecosystem, maximising collective strength beyond standalone applications to drive institutional innovation.



WITS OPEN DATA VAULT FOR RESEARCH EXCELLENCE

Dedicated Platform

Powered by institutional Figshare, serving as a central hub for high-quality research outputs.

Core Data Principles

Ensures datasets are preserved for the long term, readily discoverable, and fully citable.

Strengthening Reproducibility

Facilitates seamless data reuse, directly enhancing institutional research integrity and validation.

Catalyst for Innovation

Empowers researchers to generate new insights and questions from existing shared datasets.

Data Citability & Discoverability Index

95%

Open Science Compliance Readiness

88%

Research Reuse Potential

82%

Funder & Open Science Compliance

The Vault provides essential tools like DOI assignment and automated workflow support to meet rigorous external funder requirements, ensuring Wits remains at the forefront of global Open Science standards.

One Repository for Data and Publications?

One platform, all outputs: The Unified Wits Open Data Vault

Why One Repository?

- **Unified Workflow:** Single deposit point for datasets, research publications, theses, and dissertations, etc.
- **Reduced Fragmentation:** Eliminates silos between disparate legacy systems.
- **Efficiency:** Streamlined administration, curation, and institutional reporting for Library staff.
- **Visibility:** Strengthens reproducibility by linking data directly to publications – making sure research is reported efficiently and in real time.

Platform Capabilities (FAIR)

- **Persistent Identifiers:** Automated DOI assignment and ORCID integration.
- **Access Control:** Robust embargo options and version control for all file types.
- **Discoverability:** Searchable metadata and embeddable badges for websites.
- **Compliance:** Helps researchers meet complex funder and open-science mandates.

Integrated Metrics & Impact

- Track item-level views, downloads, shares, and citations in a single dashboard.
- Aggregate impact data across organization, department, and individual researcher levels.
- Real-time reporting on the reach of both traditional publications and non-traditional outputs.

Strategic Alignment: Supporting Research Excellence & Institutional Visibility

Note: To mitigate platformisation risks, adoption is paired with transparent institutional governance and open standards.

Administrative Control and Funder Compliance

Stewardship Metrics

Identification

Auto DOI

Access Control

Flexible Embargo

Governance

Centralised

Empowering Libraries

Institutional Figshare provides Wits Libraries with essential backend control, streamlining data stewardship and ensuring all research outputs align with university and funder mandates.

Workflow Advantages

A

Backend Control

Offers library administrators comprehensive oversight of research data, enabling professional curation and institutional governance.

B

Funder Compliance

Integrated workflows guide researchers to fulfill complex open science mandates and meet specific funder requirements automatically.

C

DOI Assignment

Automated Digital Object Identifier (DOI) assignment ensures data remains persistently discoverable and easily citable globally.

D

Embargo Management

Precise embargo options allow for strategic data release, balancing ethical considerations with open access publication policies.

Transforming Library Functions and Staff Engagement

01 Functional Consolidation

Figshare unifies disparate scholarly functions within **Wits Libraries**, streamlining research data management workflows and WiredSpace

02 Strategic Role Shift

Automation – ETDs, Research papers, and datasets enable staff to transition from manual tasks toward **enhanced researcher engagement** and proactive awareness building.

03 Platformisation Risks

Outsourcing infrastructure carries fewer risks for **staff** and provides a balance between operational efficiency and institutional productivity

Granular Metrics for Data Impact

Item-Level Tracking

Capture specific engagement signals including views, downloads, citations, and Altmetric mentions for every dataset.

Organisational Aggregation

Roll up data metrics to view high-level institutional impact and overall research output performance.

Departmental Insights

Filter metrics by academic departments to understand localized research strengths and data sharing trends.

Researcher Attribution

Provide individual researchers with tangible evidence of their data's reach and scholarly influence.

Indicators of Research Innovation

Dataset Discoverability 92%



Global Data Engagement 85%



Reproducibility Support 78%



New Knowledge Creation 70%



STRATEGIC VALUE

Granular visibility strengthens reproducibility and supports the creation of new knowledge by highlighting dataset reuse and discoverability across all university levels.

Beyond Citations with Dimensions and Altmetric

Broad Visibility

Contrast conventional citation counts with the wider visibility offered by integrated Digital Science tools.

Societal Attention

Utilise alternative indicators to surface real-world uptake and the broader societal impact of research.

Interconnected Data

Visualise intricate linkages between publications, grants, patents, policy, and clinical trials.

Strategic Metric Evolution

- Wits Libraries leverages tools to move beyond traditional citation metrics for a modern strategy.
- Dimensions and Altmetric collectively reveal a much broader spectrum of academic influence.
- Alternative indicators surface vital attention that traditional counts often overlook.

Comprehensive Impact View

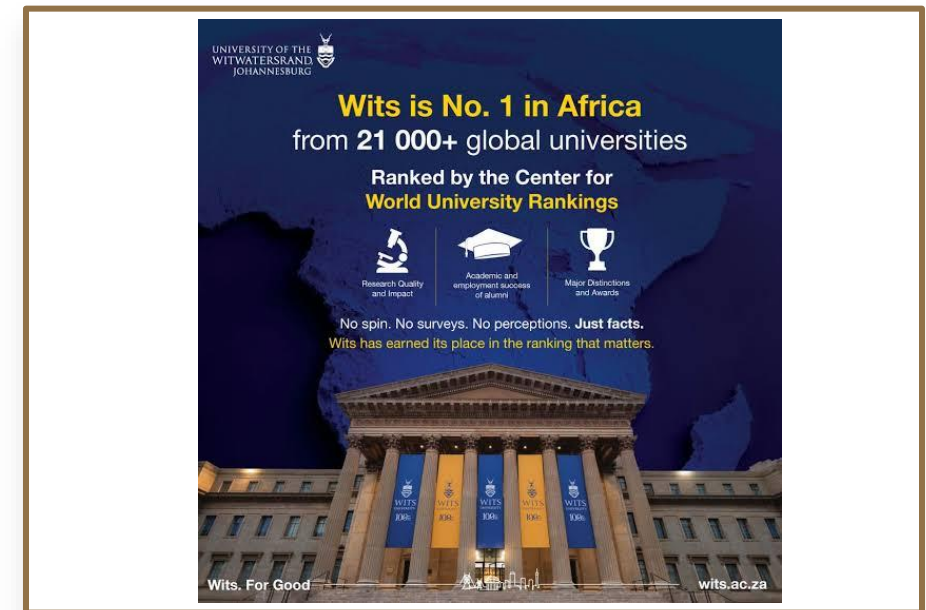
- Integrated platforms visualize connections directly between research outputs and funding sources.
- Tracks the transition of research into patents, policy documents, and clinical applications.
- Offers a holistic 360-degree view of university innovation and global contributions.

Enhancing Researcher Visibility via Figshare Integration

STRATEGIC PROFILE BOOSTING

- **Profile Automation:** Seamless ORCID integration ensures professional, synchronized, and updated public-facing researcher presence.
- **Broad Discoverability:** Leveraging embeddable reputation for personal and institutional rankings to extend reach beyond traditional repositories.
- **Data/Publication Citation Impact:** Open sharing makes datasets/publications citable and preserved, leading directly to faster visibility in the academic community.

IMPACT & DISSEMINATION



Proactive dissemination through Figshare enables new research opportunities and quicker global recognition for **Wits scholars** through citable digital footprints.

Altmetrics as a Complementary Impact Indicator

KEY PERFORMANCE RELATIONSHIPS:

- **Distinct Perspectives:** Altmetrics complement traditional citations, offering a unique view of research resonance beyond academia.
- **Societal Uptake:** While citations measure academic quality, alternative indicators reveal broader societal attention and public engagement.
- **Visibility Dynamics:** Social media dissemination is directly associated with significantly faster early visibility for new research outputs.

Impact Correlation & Strategic Insights

Correlation Data

**Weak-to-moderate links
observed.**

Low correlation between Altmetric scores and citations signals they capture different forms of impact.

Early Visibility

Accelerated research reach.

Digital Science solutions help track the immediate "buzz" that precedes traditional citation cycles.

Long-term Gains

Potential citation uplift.

Enhanced visibility can lead to higher later citation performance, though causal evidence remains a focus of study.

Strategic Value

Supporting Wits' innovation.

Using diverse metrics ensures a holistic view of how the university influences both science and society.

Tracking Research Journey from Inputs to Outcomes

DIMENSIONS: MAPPING RESEARCH

- **Lifecycle Tracking:** Dimensions enables comprehensive tracking of Wits research, tracing its journey from initial funding inputs to diverse outputs.
- **Interoperability:** It serves as an interoperable database, seamlessly linking publications with grants, patents, policy documents, and clinical trials.



IMPACT & INNOVATION STRATEGY

- The integrated view highlights the **full value chain** of research, demonstrating translation into real-world influence and policy changes.
- Utilise **faculty and university dashboards (BIS)** to monitor performance, funding success, and collaborative efforts in real time.
- Drive the broader university innovation strategy by mapping downstream societal outcomes to initial research investments.

Strategic Evidence for Funding Opportunities

- **Analysing Funding Dynamics:**

- **Identify Funding Networks:** Dimensions links Wits publications to grants, patents, and policy documents to reveal active funders.
- **Landscape Mapping:** Acknowledgment data clarifies which specific funders support diverse research areas at the university.
- **Impact Tracking:** Directly links grant inputs to research outputs, showcasing the journey from initial funding to scholarly contributions.

- **Supporting Innovation:**



By utilising Digital Science solutions, Wits Libraries can provide critical evidence to support the university's long-term innovation strategy and funding success – data archiving and digitilisation



Measuring Sustainable Development Goals Impact

01 TRACKING WITS' SDG CONTRIBUTION

Utilise **Dimensions for bibliometric tracking** to identify thematic strengths and benchmark positions by analyzing publication volume and collaboration patterns for SDG-related research.

02 OPEN ACCESS ADVANTAGE

Wits promotes open access for SDG research, as these publications tend to receive **more citations** than non-OA outputs, significantly enhancing their global visibility and innovation impact.

03 CAUTION ON SDG RANKINGS

Rankings are highly sensitive to query design. Benchmarking results can shift, necessitating **expert judgment** to ensure defensible insights and accurate strategic interpretation.

| Figshare, Dimensions, and Altmetric make Wits collaborations visible and measurable.

Dimensions: Network Mapping

- Links publications, grants, and patents to reveal co-authorship.
- Powers dashboards on funding success and research influence.
- Identifies strengths for SDG and cross-institutional projects.

Figshare: Data Synergy

- Ensures datasets are discoverable and citable via Wits Open Data Vault.
- Surfaces new collaborators through item-level metrics and global reuse.
- Ensures open science compliance for international partnerships.

Altmetric: Societal Outreach

- Provides early evidence of attention beyond traditional academic circles.
- Identifies non-academic partners to show real-world research application.
- Complements citations to provide a holistic view of collaboration impact.

EXPERT JUDGMENT & ETHICS

Metrics are most defensible when paired with transparent methods. Institutions should remain vigilant regarding the outsourcing of evaluative functions to private actors.

Collaboration Metrics Across Disciplines

Note: These entries are an interpretive framework / illustrative patterns (not fabricated institutional figures) and should be validated with actual Dimensions and Altmetric data for Wits.

Discipline	Collaboration Signal (Dimensions)	Visibility Indicator (Altmetric)	Data Sharing Pattern (Figshare)	Interpretation Caveat
STEM / Physical Sciences	High co-authorship and international collaboration; strong grant-to-output links.	Patents and citation uptake.	Datasets, code, large files frequently shared and reused.	Field-normalized citations needed; raw counts favour large fields.
Health & Clinical Sciences	Large multi-site, cross-institution teams; links to clinical trials.	Policy documents and news/ social attention.	Clinical/ research datasets with embargo and ethics controls.	Altmetric attention can spike without lasting impact; verify.
Social Sciences	Moderate collaboration; policy-relevant partnerships.	Policy documents and societal attention.	Qualitative/survey datasets, slower reuse.	Citations accrue slowly; alternative indicators add value.
Humanities	Lower co-authorship; often single-author or small networks.	Public and media attention; blogs.	Lower data-sharing volume; outputs often non-dataset.	Standard citation metrics under-represent impact; interpret cautiously.

"No single metric cleanly captures excellence across disciplines — combine indicators with transparent methods and expert judgment."

Digital Science Tools for Performance Reviews

Figshare, Dimensions, and Altmetric provide tiered, item-level evidence from institution to individual.

Review Level	Evidence & Analytics Provided
Institutional	University dashboards on funding success, collaboration, translation, and research influence; benchmarking against peers; open access and SDG-aligned output visibility.
Faculty	Field-normalized citation performance, grant-to-output links, collaboration networks, and thematic strengths to identify partners and benchmark positions.
School / Dept	Department-level item metrics (views, downloads, shares, citations) via Figshare; collaboration patterns and open-access advantage for SDG-related research.
Individual	ORCID-integrated profiles, embeddable Altmetric/Figshare badges, Dimensions citations, Altmetric attention, and Mendeley readership to differentiate performance.

QUARTERLY CADENCE: TRACK SHORT-TERM SIGNALS

Monitor item downloads/views, Altmetric attention, new outputs and datasets deposited, and emerging collaborations.

ANNUAL FACULTY PERFORMANCE REVIEWS: ASSESS DURABLE IMPACT

Evaluate field-normalised citations, grant-to-output translation, policy/patent linkages, and SDG contribution, etc.

Note: Metrics inform but do not replace judgment. Citations capture only one dimension; altmetrics complement rather than replace them.
Reviews are most defensible when combining indicators with transparent methods and expert judgment.

A University Research & Dissemination Framework

A structured approach universities use to transform academic findings and data into real-world applications, policy changes, and public engagement — moving far beyond traditional paywalled journal publishing.

Note: Figshare, Dimensions, and Altmetric operationalise this framework.

Core Pillars of the Dissemination Framework

01

Audience Mapping

Identifying who needs the research and tailoring messages to specific needs:

Policymakers
Industry Partners
Local Communities
Fellow Academics

- Policymakers
- Industry Partners
- Local Communities
- Fellow Academics

02

Multi-Channel Translation

Converting dense academic papers into accessible formats:

Policy Briefs
Infographics
Workshops & Webinars
Social Media Threads

- Policy Briefs
- Infographics
- Workshops & Webinars
- Social Media Threads

03

Open Science & Infrastructure

Ensuring long-term public availability through robust systems:

Institutional Repositories
ORCID Profiles
Open-Access Journals
FAIR Data Principles

- Institutional Repositories
- ORCID Profiles
- Open-Access Journals
- FAIR Data Principles

04

Two-Way Engagement

Fostering dialogue rather than a one-way information "push":

Community Roundtables
Stakeholder Co-design
Conferences
Feedback Loops

- Community Roundtables
- Stakeholder Co-design
- Conferences
- Feedback Loops

05

Impact Evaluation

Tracking quantitative metrics and qualitative milestones:

Altmetric Scores
Download Counts
Policy Adoption
Capacity Building

- Altmetric Scores
- Download Counts
- Policy Adoption
- Capacity Building



Dissemination Framework in Action at Wits

CORE INFRASTRUCTURE

Open Science & Infrastructure

Figshare

- **Wits Open Data Vault:** Operationalising FAIR data principles university-wide.
- **Permanent Discovery:** Minting DOIs and integrating ORCID for long-term accessibility.
- **Repository Scaling:** Supporting diverse research outputs beyond traditional PDFs.

MEASUREMENT

Impact Evaluation

Dimensions + Altmetric

- **Holistic View:** Tracking citations alongside grant, policy, and patent linkages.
- **Real-time Attention:** Monitoring web and social media reach via Altmetric.
- **Benchmarking:** Comparing Wits performance against global research trends.

DISSEMINATION

Translation & Engagement

Digital Science Ecosystem

- **Embeddable Badges:** Visualising impact directly on researcher and faculty profiles.
- **Public Profiles:** Showcasing Wits expertise to industry and policy stakeholders.
- **Library Support:** Automated workflows free up staff for high-value engagement.

Caveat: While digital metrics provide critical insights for monitoring, they are most *defensible* when combined with *transparent methods* and *expert peer judgment* to ensure a nuanced understanding of research value.



Research. Smarter.

Digital Science — Research. Smarter.

For research organizations that need tailored tools, better data, and full visibility across the research process.

→ Tailored tools fitted to real workflows

→ Better, connected data across the research lifecycle

→ Full visibility from funding inputs to real-world impact

→ Less admin and manual reconciliation, more time for research and engagement

→ Evidence-led strategic decisions and benchmarking against peers

Institutional Evaluation and Peer Benchmarking

Differentiating Performance

Dimensions citations, Altmetric scores, and other metrics collectively enhance the differentiation of university and researcher performance through varied impact lenses.

Holistic Excellence

It is crucial to recognise that no single metric, including field-normalized citations, can cleanly capture the full breadth and complexity of research excellence.

Benchmarking Methodologies

Peer benchmarking outcomes are highly sensitive to methodological shifts and query design, necessitating critical interpretation and context-aware analysis.

Transparent Responsible Metrics

Institutional evaluations and global rankings are most defensible when underpinned by transparent methods, open data sources, and rigorous expert judgment.

The Strategic Shift

Moving beyond raw counts to field-normalized citations/metrics allows for meaningful faculty evaluation and more accurate cross-disciplinary comparisons.

A Future Wits Research Ecosystem



The world's largest connected research database linking publications, grants, patents, policy, and clinical trials for funding, strategy, and impact.



Tracks and analyses real-world attention and engagement across policy, news, and social media — impact beyond citations.



Open research repository (Wits Open Data Vault) for FAIR, citable, discoverable outputs with DOIs and ORCID integration.



Research information management system (RIMS) that unifies institutional data, cuts manual reconciliation, and enables trusted self-service reporting.

Used together, these four products will give Wits full visibility across the research process — the foundation of a connected, future-ready research ecosystem.



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