Integrating Research Data Management Services into Institutional Workflows: a South African Perspective

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Integrating Research Data Management Services into Institutional Workflows: a South African Perspective

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Cape Peninsula University of Technology

- South Africa
  - 26 Universities
  - 6 Universities of Technology
  - Western Cape Region
  - Cape Town
CPUT LIBRARIES E-STRATEGY

• Library e-Strategy
  • Six focus areas:
    ➢ e-Research – development of researchers’ RDM infrastructure and services
    ➢ e-Learning – integration with Learner Management System
    ➢ Digitization – of university’s intellectual outputs
    ➢ Open Scholarship – Open publishing, OERs
    ➢ Library Web Environment – Communication & Information Services
    ➢ e-Resources and Discovery Platforms – Resources & Access

IATUL Annual Conference 2017
Why eResearch at CPUT Libraries?

The approach is to enable the library to:

- Comprehensively support research projects by closely accompanying their related life cycle
  - Proposal Writing, Data Management Plans, Data Collection, Data Analysis, Data Storage and Preservation, Publication of Results and Dissemination of Scholarly Outputs
- Establish adaptive library services in order to provide tailor-made solutions for research projects’ data management requirements
ACADEMIC LIBRARIES & RESEARCH DATA MANAGEMENT

• Is it our role to Manage Research Data
  — YES
    • Data from research – “an integral part of the global knowledge base & their management is an extension of the current library’s role”
  — NO
    • “the scale of the challenge in terms of infrastructure, skills and culture change requires action by a range of stakeholders – not just the university libraries (Lewis 2010)
RESEARCH DATA MANAGEMENT IS A COLLABORATIVE EFFORT.........

Infrastructure, services and human capacity

Institutional Culture

Policies
DEVELOPING RDM CULTURE

• Creating Institutional Partnership
  – CPUT RDM Working Group
  • Membership; Roles; Outputs
RDM CULTURE

• RDM Working Group
  – Chair, membership

• Alignment to University’s Committees
  – Senate and Senate Sub-committees
    • Senate Research and Innovation Committee
    • Senate Library Committee
    • Senate
    • ICT Committee
    • Council’s IT Governance Committee
RDM CULTURE

• University’s Research Strategy
  – Research, Technology & Innovation Blueprint (RTI)
    • 10 Year Roadmap – growth & development of research at CPUT
ROLE OF THE LIBRARY IN THE UNIVERSITY’S RESEARCH STRATEGY

• Enhanced library research support systems and services, access to information, digital platforms, support for research skills

• Curation, dissemination and promotion of traditional outputs of research in terms of articles and theses, and curation of research data and innovation output, including enhanced research data management systems
POLICY DEVELOPMENT

• Research Data Management Policy
  – Aligned to Other Related Institutional Policies:
    • Policy on Intellectual Property
    • Research Policy
    • Contract Research Policy
    • Institutional Operation Plan (IOP)
    • Research Management Plan
    • Research and Innovation Plan
    • Open Access Policy
RDM POLICY DEVELOPMENT

Consultation Process

• Research Data Management Policy
  – Introductory Workshops with Research Centres and rest of the research community (concept discussion, Policy discussion and input)

Collaborative Workshops
RDM POLICY DEVELOPMENT

• Collaborative workshops
• Follow approved institutional policy making process
• Policy Approval
Policies

- CPUT RDM Policy

<table>
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<tr>
<th>Research Data Management (RDM) Policy</th>
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<tr>
<td><strong>Policy Group(s):</strong></td>
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<td>B: Teaching &amp; Learning</td>
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<td>F: Technology, Partnerships, Research and Planning</td>
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<td><strong>Type:</strong></td>
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<td>Policy</td>
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<td><strong>Procedures:</strong></td>
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<td>Guideline</td>
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<td><strong>CPUT Statute and/or Regulation:</strong></td>
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<td>Reference No and date</td>
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<tr>
<td><strong>Relevant Legislation and/or policy, Codes of practice, Professional Authorities:</strong></td>
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<tr>
<td>- Plant Breeders’ Rights Act 15 of 1976</td>
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<tr>
<td>- Patents Act 57 of 1978</td>
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<tr>
<td>- Copyright Act 98 of 1978</td>
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<tr>
<td>- Trade Marks Act 194 of 1903</td>
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<tr>
<td>- Designs Act 125 of 1933</td>
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<tr>
<td>- Counterfeit Goods Act 37 of 1997</td>
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<tr>
<td>- Competition Act 89 of 1998</td>
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<tr>
<td>- Electronic communication and transaction act 25 of 2002</td>
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<tr>
<td>- Biodiversity Act 10 of 2004</td>
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<tr>
<td>- Technology Innovation Agency Act 26 of 2008</td>
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<tr>
<td>- Intellectual Property Rights from Publicly Financed Research and Development Act 81 of 2008 (hereinafter the IPR Act)</td>
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<td>- Protection of personal information, Act 4 of 2013</td>
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<tr>
<td><strong>Relevant Institutional policies/ Documents/ manuals/ Handbooks:</strong></td>
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<td>- Community Engagement Policy 2008</td>
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<td>- Policy on Short Courses</td>
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<td>- Institutional Operation Plan (IOP)</td>
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<td>- Research and Innovation Plan</td>
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<td>- CPUT Libraries Open Access Policy</td>
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NATIONAL MANDATES

• National Mandates - NRF Open Access Mandate

Statement on Open Access to Research Publications from the National Research Foundation (NRF)-Funded Research

Background

The National Research Foundation (NRF) was established through the National Research Foundation Act (Act No.23 of 1998). As an independent statutory agency, the organisation promotes and supports research in South Africa largely through the country’s Higher Education Institutions (HEIs), National Research Facilities and Science Councils with a view to generating knowledge and promoting high-level research capacity within the National System of Innovation (NSI).

Supporting scientific research through public funding is important for growing the knowledge economy, promoting innovation and stimulating appropriate development. The publication of NRF-funded research outputs contributes to the knowledgebase of the...
INFRASTRUCTURE AND SERVICES

• Collaboration with other Universities
GOALS OF THE COLLABORATION

• Set up international working groups on various RDM development aspects
• Develop an Open Source Platform for managing RDM cycle
• Set up institutional working groups to feed into the development of the Open Source Platform/and Services
INFRASTRUCTURE AND SERVICES

- eRIC (eResearch Information and Communication)
INFRASTRUCTURE AND SERVICES

- Platform – Open Source – MediaTum
RDM PILOT PROJECTS

• Institute of Biomedical and Microbial Bio catalysis
  – 15 leading researchers led by a Research Chair (funded by the South African National Research Foundation)
  – Used to be part of the South Africa Medical Research Council
    • Brings a wealth of research experience and lots of data requiring management
PILOT PROJECT REPORTING

• Continued communication between the Library RDM Team and the Institute’s Researchers

• Final pilot project results to be reported jointly to various university committees
ALIGNING INSTITUTIONAL PROCESSES TO RDM SERVICES

• Grants Application Process
• Postgraduate Students Document Management Systems
  – HDC – Higher Degrees Committee
ALIGNING INSTITUTIONAL PROCESSES TO RDM SERVICES

• Data Management Plans & HDC Process
Theses and Dissertation Submission Process

- Print Copies
- Electronic Copies
- Data sets
  - DSpace – linked to deposits in institutional repository
Future Integration Projects

• CPUT - Enterprise Research Information Management System
  – Internal Systems
    • Research Information Management System
    • Higher Degrees Management System
    • Research Data Management Services
    • Institutional Repository
  – External Systems
    • ORCID
    • Other Systems/Platforms
THE FUTURE

• CPUT eResearch Centre
  – A coordinating unit to bring together and lead the drive towards specialised advisory services on research data management in various research disciplines
  – Connect digital research to national and international eResearch initiatives
  – Play a leading role in CPUT’s involvement in the Western Cape Data Intensive Research Facility
THE FUTURE

• Western Cape Data Intensive Research Facility
  – DST (Department of Science & Technology) invests millions to expand cyberinfrastructure
    Shared resource, focused initially on astronomy and bioinformatics, supporting major initiatives such as the MeerKAT/Square Kilometre Array (SKA) and the DST's Bio-economy Strategy.
• Led by University of Cape Town with University of Western Cape, Stellenbosch University & Cape Peninsula University of Technology as partners
THE FUTURE

• Training Librarians in Research Data Management Support
  – Through Institutional, National & International Programmes
thank you