### Position Description

| Title: | Data Steward, Data Science and eResearch | HEW Level: | HEW 7 |
| Faculty/Office: | Office of the DVC Research | Position Number: | New |
| Department/Team: | Pro Vice-Chancellor (Research Performance) | Date: | April 2020 |

**Position Purpose:** To provide research data support to the PVC Research Performance Portfolio primarily in Data Science and eResearch activities.

**ORGANISATIONAL CONTEXT**

The Deputy Vice-Chancellor (Research) [DVCR] is responsible for the development and strategic enhancement of Macquarie University's research, research training, as well as the creation, support and advancement of local, national and international research collaborations and partnerships.

The portfolio of the DVCR drives research and research related strategy of the University. The portfolio spans a diverse, though intersecting, range of activities across the institution and is responsible for all aspects of the University’s research operations, including the management and delivery of higher degree research degrees, internal and external grant schemes, research collaboration agreements, commercialisation and intellectual property agreements, and all other research related matters. The DVCR portfolio actively collaborates across all areas of the institution, including teaching and learning, marketing, corporate engagement and international portfolios.

Within the DVCR Portfolio, the PVC (Research Performance) Portfolio aims to sustains and grows the university’s research profile through the development and implementation of strategies to improve research performance and research quality, capacity and capability across the University.

The Data Science and eResearch team is responsible for projects and initiatives that support research performance, quality and integrity with relation to data management, high performance computing, training and communications. The team guides - and plays a role in decision making and implementation of - policy, infrastructure, processes, training and communication to effectively build data science and eResearch resources and capability.

**ORGANISATION CHART**

![Organisation Chart](chart.png)
## KEY ACCOUNTABILITIES

**Systems support**
- Support business analysis and scoping around research data systems.
- Administer and support research data repositories, taking responsibility for uploading datasets, creating high quality metadata and developing sound processes for adding, structuring and hosting inputs.
- Administer and support research data systems for data management planning management and sharing of ‘active’ data, and data analysis.
- Document the administration and use of research data systems.

**Data modelling and data technologies**
- Develop approaches to collection, management, collaboration, and analysis around ‘active’ data in collaboration with researchers from a variety of disciplines.
- Archive research data, ensuring long term preservation and integrity of datasets, in collaboration with researchers from a variety of disciplines.

**Engagement, support, and training**
- Support, liaise and engage with a diverse group of stakeholders in cross disciplinary settings and across a broad range of research areas.
- Teach workshops (including Data and Software Carpentry and/or data management) and produce instructional material and other documentation related to research data.
- Provide and deliver specialist expert advice in the area of research data, including approaches, platforms, infrastructure, policy, ethics and skills.
- Consult with researchers to identify their requirements across the data management life cycle, providing relevant and timely delivery of expertise, resources, and/or services.
- Provide training and 1:1 support for higher degree research students and academic staff on research data management and creating data management plans, practical safeguarding

## POSITION CONTEXT

**Reports to:**
Director, Data Science and eResearch

**Positions Reporting to:**
Direct: nil
Indirect: nil

**Key Direct Clients:**
- DVC Research
- PVC Research Performance
- Data Science and eResearch Steering Committee
- Office of Research Integrity and Ethics
- Faculties
- Researchers and research students
- HDR students

**Other Key Relationships:**
- PVC Research Integrity and Development
- PVC Research Training Pathways and Partnerships
- Information Technology
- Research Services
- Library
- Government and research/funding bodies e.g. ARDC

**Budget Accountability:**
Nil

**Role-specific Conditions:**
Delete from the list those items which are not relevant to the role.

**Scope and autonomy**
Develops and/or modifies established systems, procedures, policies or relates precedent to new situations. Uses autonomy and good judgement and has the ability to take action, on own accord, to address problems and prevent them from reoccurring.
### CAPABILITY FRAMEWORK

**Capability Frameworks** describe the behaviours, skills, attributes and experience required to successfully perform a position or group of similar positions.

<table>
<thead>
<tr>
<th>COMPETENCIES Clusters of behaviours required for successful performance.</th>
<th>ATTRIBUTES Personal qualities related to successful performance.</th>
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<tbody>
<tr>
<td><strong>Planning and Execution:</strong> Managing time and resources to complete tasks and achieve objectives.</td>
<td><strong>Resilience:</strong> Dealing effectively with and recovering quickly from setbacks or pressures.</td>
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<td><strong>Perseverance:</strong> Persevering despite obstacles to ensure tasks are completed.</td>
<td><strong>Problem solving:</strong> Draws on own knowledge, experience and expertise to identify, develop and implement new initiatives, processes and programs.</td>
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<td><strong>Policy and process</strong></td>
<td><strong>Other</strong></td>
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<td>- Support research technology community-building programs, including information exchanges, events, workshops, and community forums.</td>
<td>- Work autonomously and, in consultation with other members of the eResearch team, carry out tasks that support multi-disciplinary and large-scale research and associated data management approaches across the University.</td>
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<td>- Engage with the researcher community to promote best practice in research data management, encourage compliance with policies and publisher/funder requirements and raise awareness of the support available for researchers.</td>
<td>- Generalise approaches, processes, and procedures for data management and archiving from specific research cases and articulate them as standards.</td>
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<td>- Work with Research Ethics to implement and improve Macquarie research data standards and processes.</td>
<td>- Generate improved solutions in work situations, trying creative ways to deal with complex problems and opportunities.</td>
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<td>- Comply with relevant EEO and WHS regulations.</td>
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<td>- Generalise approaches, processes, and procedures for data management and archiving from specific research cases and articulate them as standards.</td>
<td>- Perform any other duties as required and as appropriate for the incumbent’s level of competence.</td>
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### Implementing Systems
Adopting a systematic and organised approach and developing and utilising guidelines and procedures.

### Setting Expectations
Stating clearly what is expected from others, clearly expressing ideas, and maintaining a precise and constant flow of information.

### Tracking Performance
Taking nothing for granted and persistently monitoring the progress of activities to ensure they are completed on time.

### Delivering Outcomes
Holding self and others accountable for achieving high quality and solution focused outcomes.

### Influence and Persuasion
Gaining other people's buy-in and engaging their support.

### Change Focus
Adapting to new situations and dealing with change.

### Relationship Management
Establishing effective working relationships with others.

### Communication
Effectively grasping and conveying ideas and concepts to others.

### Improvement Focus
Finding better ways of completing tasks or solving problems.

### Service Focus
Making staff, students, key contacts and their needs a priority.

### Teamwork
Working in collaboration with others to achieve shared goals.

### Flexibility
Responding effectively to unexpected or changing circumstances.

### Reliability
Meeting commitments and responsibilities.

### Accountability
Assuming responsibility for making decisions and delivering agreed outcomes.

### Initiative
Taking action, on own accord, to address problems and prevent them from reoccurring.

### Integrity
Maintaining confidentiality, discretion and professionalism.

### REQUIRED KNOWLEDGE
Qualifications, technical and/or professional skills and information needed from day one for successful performance.

The candidate for this position should have broad knowledge of the Purdue competence areas and DAMA knowledge areas related to data stewardship, as well as deeper understanding in several of these areas. The candidate may have expertise in either developing and implementing policy at an institutional level, or in project-focused delivery of operational solutions (see Scholtens, et. al., 2018; DOI:10.5281/zenodo.2561723).

Specifically, all candidates should have:
- Tertiary qualifications or comparable experience working in academic research and a thorough understanding of the research process.
- Knowledge of the research environment in higher education and an understanding of the principles of research data management.

### KEY EXPERIENCES
Practical experiences and exposure to specific environments or activities related to successful performance.

Experience of working with an information system in a library or higher education environment, such as a research data repository, open access repository or current research information system.

Experience with a broad range of technology skills relating to research data.

Experience of administering and/or deploying research data repositories or ‘active’ data storage and collaboration platforms.

Experience of working with academics or research students to promote and support research data management.

Experience implementing FAIR data principles in research at a project or institutional level.
Excellent ICT skills, including an understanding of software relevant to academic research.

Familiarity with the Australian and international data science and eResearch environment, including ethics and compliance, open science / open research practices and/or metascience / meta-research scholarship.

Knowledge of, and experience with, technologies and solutions that support data analysis, storage and publication, including online computing solutions, platforms and tools.

Knowledge of good practice around data management for research across the data lifecycle (creating data, processing data, analysing data, preserving data, giving access to data, and reusing data).

Knowledge of the FAIR data principles and their implementation.

Knowledge of good practice around metadata and data curation.

Excellent communication and team skills, including the ability to prepare documentation for various audiences, present, and to liaise, advise and negotiate at various levels.

Sound organisational and time management skills, including the ability to set priorities and perform well under pressure within a complex and changing environment.

In addition, applicants claiming expertise in project-focused delivery should have:

Knowledge of data modelling and database design.

Knowledge of Linux shell and version control, and at least one language used for data manipulation (e.g., R, Python, SQL).

Knowledge of at least one data science approach (e.g., statistical, geospatial or machine learning techniques).

Or, applicants claiming expertise in institutional policy development and implementation should have:

Understanding of compliance issues related to research data, including legal and ethical requirements as well as funder and publisher expectations.

Understand Government and Industry sources of funding and application requirements.

Expert knowledge around data curation, including development and implementation of metadata standards.

Experience teaching research technology or data workshops and developing related training materials, especially those using Data / Software Carpentries approaches.

Demonstrated experience working in or closely with (national) research organisations/facilities or similar.

Demonstrated experience with successfully engaging with a diverse group of stakeholders within an institution, research facility or research group that spans multiple institutions.

Experience with project-focused delivery to researchers of data modelling, management, and archiving, or knowledge of institutional policy development and implementation.
**ACQUIRED KNOWLEDGE**

Organisational and/or professional skills and information to be developed within the first 3 to 6 months in the role for successful performance.

- Knowledge of the Office of the DVC Research and University functions and structure.
- Knowledge of the Office of the DVC Research and University policies, systems, processes and procedures.
- Knowledge of how the University works and how relevant functions across the University interrelate.
- Understanding of the approach to research technology and research data at Macquarie developed over the past three years.
- Familiarity with software development project management.
- Knowledge of the training pedagogies (e.g., Data / Software Carpentry) used at Macquarie, including the ability to contribute to training using these pedagogies.
- Proficiency in software used by the team, e.g., project management and collaboration / communications platforms.