Dr Paddy Tobias

About Me

Hi!

I am the data science manager and technical lead at the Social Research Centre. I am passionate about deploying and scaling up data science solutions in a research context.

Read more about me here…

Current Position

Data Science Manager and Technical Lead - The Social Research Centre

2021-present

From 2021-2022 I managed a team of eight data scientists and engineers to support the Quality Indicators for Learning and Teaching (QILT) project for the Commonwealth Department of Education. QILT is very complex with a number of parallel end-to-end processes.

In 2022 I became the manager of data science at the SRC, overseeing 18 staff and up to 20 projects at any one time. I work under the [Senior Director of Data Science, Cynthia Kim] (https://srcentre.com.au/employees/cynthia-kim).

In this role I currently drive a development agenda to build efficiencies and scalability in data management and processing for the SRC, including implementing new tools and technologies to improve data quality and readiness.

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• I collaborate with teams across the company to design and implement data pipelines and workflows for various projects.
• I continually provide consultation and advice to researchers and business leaders on data and software management techniques.
• One notable project I'm working on at the moment is the SRC's unique project, [Life in Australia study](https://srcentre.com.au/our-research/life-in-australia-study). Specifically my role is to help rebuild the data warehouse backend and associated workflows. This is a six month project, expected to complete in June 2023.

Senior Data Scientist - The Social Research Centre

2019-2021

As senior data scientist, I worked on the Major Projects team for the SRC. The main focus is the [QILT](https://www.qilt.edu.au/) project for the

Australian Government Department of Education, Skills and Employment.

QILT is a longitudinal study into student experience and outcomes of high education students in Australia, which has been running for over ten years.

I started as a data scientist in 2019 and was promoted to a senior position less than a year later.

Selected other experience

eResearch Analyst, Deakin University - Intersect Australia

2018-2019

Based at Deakin University, Burwood, reporting to the Director of the eResearch team, Dr Christopher McAvaney. My role was to service researcher at the the Burwood campus, including coordinating training, providing strategic support for faculties, and supporting researchers to incorporate computational techniques into their workflow.

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Education & Training

- I coordinated Intersect's training program at Deakin, delivering the programming, data science and data management courses on campus. A colleague and I deliver all the training at Deakin. We delivered +40 courses in 2019.
- I worked to improve the experience of participants inside and outside of the courses, building up a network of interested researchers and systematically notifying them when courses become available. I have found that this has built a community of researchers interested in upskilling, which has facilitated peer-to-peer learning.
- I regularly presented to HDRs, post-doctoral fellows and academics on data and software management techniques, eResearch capabilities, and help researchers in their projects through consultation and advice.

Research Project Consultancies

Worked with a researcher to harvest and analyse Twitter data. I have developed him a Twitter scraper and am now helping him to conduct natural language processing to interpret the text data.

eResearch Analyst, University of New England - Intersect Australia

2016-2018

Based at UNE, reporting to the Deputy Vice Chancellor - Research (DVCR), Prof. Heiko Daniel. Whilst located in the Research Services Directorate, to carry out this role effectively, I worked collaboratively with the University Library and the IT Directorate, as well as the faculties.

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Strategic Initiatives

- I chaired the University's eResearch Committee, a committee sponsored by the DVCR, since August 2016, established to advance the university's

eResearch services. As chair, I led the investigation of various university eResearch capabilities; oversaw the committee's restructure and renewal; and reported to the University Research Committee and the DVCR as required.
- Initiating and leading a year-long, university-wide Research Data Management project. This project functioned to build awareness amongst researchers of university services including the institutional cloud storage platform, Cloud.UNE; positively affect cultural change with regard to research data management; streamline inter-department workflows and advocate for further investment into infrastructure capabilities; and automate weekly reports on UNE researchers' usage of Cloud.UNE. This project saw a 300% increase in Cloud.UNE accounts.
- Member of a team establishing a Researcher Support Network at UNE, to support researcher support staff to carry out their roles effectively. ReSuN is intended to open communication channels between faculty-based staff and central services staff.
- I conducted a web-scraping and text analysis project to support UNE's preparation for the Research Engagement and Impact assessment, using 2014 submissions to the UK REF Impact assessment.

Research Project Consultancies

- Providing eResearch support to an ARC Discovery Project in digital musicology led by Dr Jason Stoessel since 2016. I also supported the successful application for a successive ARC Discovery grant awarded to Dr Stoessel and his colleague, Dr Denis Collins (UQ). My work in this project involved leading the migration and formatting ~9,000 data records from a FileMaker Pro database into an open source online database repository called Muscat using database techniques; scripting bug fixes in Python and SQL; and project management. Canonic Techniques website is now live.
- In 2016-17, I initiated and led the Ngan'gi Language Collection Enhancement project for A/Prof. Nick Reid, funded by the Australian National Data Service. This including scoping realistic web-based solutions for A/Prof Reid's requirements; managing the execution of the project from start to finish; and coordinating user acceptance testing, content migration and training. A/Prof Reid and I presented the project at the 2017 eResearch Australasia conference.

Research Fellow, Institute of Conflict Transformation and Social Justice, Queen's University (Belfast)

2014

Lead Monitoring & Evaluation Consultant, Women's Empowerment and Access to Justice project in Timor-Leste, Search for Common Ground (Washington)

2013

Education

Ph.D, *Cum laude*. University of New England, 2010-2015

M.Data Science. University of New England, 2018-*ongoing*

B.International Relations, *Distinction*. Deakin University, 2007-2009

Other training

Advanced R Shiny, 2022

Software Carpentry instructor accreditation, 2018

Programming skills

My proficiency in selected ETL tools

R, RStudio, Shiny

Python 2 and 3

SQL (SQLite, Oracle, Postgres and MySQL) and database design

Git, GitHub and version control

Bash, grep, sed

Javascript

Publications

Read about them here…

References

Provided on request.

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