Michael Lynch

Career overview

I'm a software developer and analyst with more than ten years' experience providing specialised IT and data management support to research staff and students. I've worked in a team providing research support at the University of Technology Sydney for the past ten years, and have also worked in the University's Research Office, providing planning, consultation and technical development to the team responsible for the first three rounds of ERA (Excellence in Research for Australia). I have provided technical support and data management advice to researchers in disciplines ranging from design, art and public history to physics and computer science. I am an active participant in the Australian eresearch community and am a member of several international communities around open repositories and metadata standards for research data.

Professional history

eResearch Business Analyst, eResearch Support Group, UTS

February 2015 – present

Key Achievements

I was the designer and technical lead of the Provisioner project, which reimplemented the University's research data management planning tool, Stash. We collaborated with the maintainers of ReDBox, the open-source platform on which Stash is based, to redevelop it as a modern web application in Node.js. As part of this redevelopment, I introduced and helped to implement a new feature, research workspaces, which allow the system to link research data management plans with projects in specialised research platforms such as LabArchives, GitLab and OMERO and to integrate with our enterprise job ticketing platform for raising storage and HPC requests. The Provisioner project was carried out in collaboration with the Queensland Cyber Infrastructure Foundation (QCIF) and partly funded by a grant from the

17/37 Khartoum Road
Macquarie Park NSW 2113

0438 388 023

mike@mikelynch.org

https://mikelynch.org/

Technical

Python - pandas, NLTK, numpy, TensorFlow

JavaScript - Node, Express, Sails, Angular, d3.js, three.js

Perl, Haskell, Lua, Golang

Devops - Ansible, Docker, Singularity, PBS Pro

Research sector knowledge

Ethics and data governance

Open data, FAIR and CARE principles

Metadata and standards

Grant administration

Research life-cycle

Project management and IT architecture

Agile and scrum development

Enterprise IT architecture

Data security

Training and communication

Certified Software Carpentries instructor

ResBaz Sydney presenter and organiser

Presentation skills

Excellent verbal and and written communication skills

Awards

Research Support Award, Vice-Chancellor's Awards for Research Excellence, 2010

Australian National Data Service (now the Australian Research Data Commons).

I lead our development team in adopting an agile development methodology for the Provisioner project and subsequent projects developing the capabilities of the Stash platform.

My team was among the first in the Information Technology Division to adopt a devops style of application automation and deployment using Docker and Ansible.

I have worked with the Architecture team, the Solution Design Centre and the Chief Data Officer in onboarding specialised research applications in a way which meets the University's enterprise architectural principles.

I am an active participant in the development of RO-Crate, an open format for packaging research datasets with rich human-readable and machine-actionable metadata. I am a contributor to the open source Node.js library for working with RO-Crates.

I am an active participant in the international community around OCFL, the Oxford Common File Layout, a platform-neutral standard for organising scalable, sustainable repositories of digital objects. I am the lead developer of the first implementation of an open source OCFL library in Node.js.

I am the designer and technical lead for Oni, a simple platform for providing a search and discovery layer to an OCFL repository using the Solr open source search platform. Oni has been deployed at UTS as our research data publications portal, and as an internal Library of Successful Grants used by researchers to develop their grant application skills.

I am a participant in the development of the Arkisto framework, a platform for FAIR data repositories based on OCFL and RO-Crates.

I have presented at the eResearch Australasia, eResearch New Zealand and Open Repositories conferences, and presented a paper on the Arkisto framework at Linux.conf.au in 2021.

I developed and presented a workshop on Text Mining for the Humanities which demonstrates the basics of text tokenising, cleaning and categorising using NLTK and Google CoLab.

I conducted a workshop on data visualisation with d3.js as part of the Sydney ResBaz (Research Bazaar) – an informal conference for digital research skills and training – in 2017. I am a member of the organising committee for the online Sydney ResBaz in 2021.

For more detail on my technical skills and links to the software projects and presentations mentioned above, please refer to my online CV at https://mikelynch.org/pages/cv

Responsibilities

- Consultation with researchers and administrative staff on research data management
- Developing and maintaining software for managing, describing and publishing research data
- Providing technical assistance to research staff and students
- Engagement with the Library, Research Office, Ethics team, Office of the Deputy Vice-Chancellor (Research) and Faculties around research data management awareness, training and governance

- Engagement with the Australian eResearch community and national and international metadata and repositories community
- Representing the eResearch team at the Information Technology Division's Solution Design Centre, reviewing IT projects for compliance with UTS IT architecture principles and standards

Acting manager, eResearch Support Group, UTS

April 2014 – February 2015

Key achievements

I participated in planning and drafting of the 2015 budget.

I helped implement metrics for performance levels and researcher engagements.

I participated in consultations with senior academics and research leaders for the start of the ERA 2015 process.

I re-implemented the static ERA reporting scripts used in the 2012 submission as a web application, allowing publications and staff reports to be accessed by the ERA team and research leaders with much less manual intervention.

Responsibilities

- Managing, supporting and developing the activities of the eResearch support team
- Budgeting, allocating resources and determining priorities in collaboration with the Manager, IT infrastructure
- Maintaining relationships with key stakeholders throughout the University
- Providing data management advice and support to the University

eResearch Business Analyst, eResearch Support Group, UTS

2011 – 2014

Key Achievements

I was project manager for two research data management projects, Metadata Stores MS22 and Data Capture DC18. These were funded by the Australian National Data Service (ANDS) as part of a sector-wide initiative to build a national research data commons. The successful completion of these projects established Stash, the university's research data management planning tool and catalogue.

I drafted the Research Data Management Vice-Chancellor's Directive, in consultation with key stakeholders in the Research and Innovation Office, the Office of the Deputy Vice-Chancellor (Research), the University Library and ITD. The Directive took effect in April 2014.

I collaborated with the RIO Planning and Operations Team on the ERA 2012 strategy and submission process. I extended and upgraded the reports that I had developed for ERA 2010, and worked extensively with research leaders and senior academics in communicating the requirements of the ERA process and helping to develop the University's submission strategy.

Responsibilities

- Provision of technical advice and analysis for the provision of IT infrastructure and data management to researchers at UTS
- Development of policies and procedures for data management in collaboration with other University stakeholders
- Development and support of tools and platforms for UTS researchers and research administrators
- Collaboration with Research and Innovation Office staff on the ERA 2012 reporting round

Acting Manager, Research Performance and Monitoring, Research and Innovation Office, UTS

2009 – 2010

Key Achievements

I played a key role in the UTS ERA team, delivering presentations to senior researchers in all Faculties, developing software systems to provide reports and modelling on the UTS submission, and collaborating with research leaders and the Office of the DVCR in developing the UTS submission strategy. As a member of the ERA team, I was awarded the Vice-Chancellor's Award for Research Excellence (Research Support Division).

Responsibilities

- Managing and supporting the activities of the Planning and Operations Team within RIO, who provide research performance analysis to many University stakeholders, maintaining ResearchMaster, the University's enterprise research database, and supporting the University's research ethics framework. This was a secondment to RIO from the Faculty of Engineering and Information Technology to replace the incumbent Manager, Research Performance and Monitoring.
- Planning, communication and support for the University's response to the first official ERA round.

Senior Developer, Faculty of Engineering and Information Technology, UTS

2003 – 2008

Key achievements

I developed Checkout, a modular online payment gateway which allowed multiple online stores to process credit card payments through the Commonwealth Bank's CommWeb service, and then reconciled and reported payment details to the Financial Services Unit.

Responsibilities

- Development and maintenance of web and systems applications supporting the staff and students of the Faculty of Engineering and Information Technology
- Collaboration with the Financial Services Unit and Web Team in supporting online payment systems

Earlier roles

2001-2003 Freelance web development and home duties,

1996-2001 Web developer, UTS School of Computing Sciences and Faculty of Information Technology

Education

Bachelor of Arts / Bachelor of Law, Macquarie University 1994

References

References available on request.