ENGAGING STAKEHOLDERS – THE KEY TO SUCCESSFUL RESEARCH DATA MANAGEMENT LIBRARY SERVICES

ABSTRACT

Research data form an integral part of a researchers' scholarly outputs. Research data can be a valuable resource, which can often be repurposed and future research can build upon, but more importantly research data provide critical evidence for validating the results of research. In recognising the significance of research data, the government, funding bodies and the general public increasingly demand open data for sharing and re-use. Evidently, to be able to share and re-use, research data need to be well-managed and securely stored. Research institutions have a responsibility to ensure that the research data produced by their researchers are well managed. The Australian Code for the Responsible Conduct of Research states that academic institutions have responsibilities to "provide facilities for the safe and secure storage of research data and for maintaining records of where research data are stored." (The Australian Code for the Responsible Conduct of Research, 2007, p. 2.1)

Academic libraries have a long history of supporting research activities by acquiring, maintaining and disseminating scholarly information in universities (Corrall, S, 2013; Searle, S; 2015). With the skills and knowledge of information preservation and curation, and with their extremely flexible and responsive attitude, academic librarians can be instrumental in providing training and advice for managing, preserving, sharing and re-use of research data (Cox & Pinfield, 2014; Brown, Wolski & Richardson, 2015). Increasingly the governing committees in academic libraries recognise that developing research data management support services is

an important strategic priority for librarians to provide to their parent institution (Cox & Pinfield, 2014; Rambo, N, 2015). At the same time, it becomes evident that research data management is a complex process that happens at every stage of the research life cycle (Brown, Wolski & Richardson, 2015; Pryor, 2012); therefore, it is a priority for librarians to closely align their work in this area with other organisational units within the University. This requires librarians to build and maintain relationships with both external as well as internal stakeholders.

Because of their knowledge and skillset, academic librarians can potentially play a vital role in providing research data management services to researchers. However, for these services to be successful, it is imperative for the librarians to build and maintain relationships with both internal and external stakeholders at all levels. The University of Queensland Library Research Data Management team work closely with the Office of the Deputy Vice-Chancellor (Research), the Research Integrity Office, the Information Technology Services (ITS), researchers, research administrators, as well as external data service providers such as the Australian National Data Service (ANDS) and Queensland Cyber Infrastructure Foundation (QCIF). The Research Data Management Team are supported by faculty librarians to provide infrastructure, advice, and training to UQ Research Higher Degree (RHD) students and researchers.

This presentation will discuss the strategies and approaches adopted over the past five years to engage and maintain relationships with the multiple critical stakeholders, and share the tangible outcomes achieved by developing the Research Data Management Services at UQ Library.

INTRODUCTION

Research data form an integral part of a researchers' scholarly outputs. Research data can be a valuable resource, which can often be repurposed and future research can build upon, but more importantly research data provide critical evidence for validating the results of research. In recognising the significance of research data, the government, funding bodies and the general public increasingly demand open data for sharing and re-use. Evidently, to be able to share and re-use, research data need to be well-managed and securely stored. Research institutions have a responsibility to ensure that the research data produced by their researchers are well managed. The Australian Code for the Responsible Conduct of Research states that academic institutions have responsibilities to "provide facilities for the safe and secure storage of research data and for maintaining records of where research data are stored." (The Australian Code for the Responsible Conduct of Research, 2007, p. 2.1)

Academic libraries play a vital role in supporting Research Data Management (RDM) best practice. Academic libraries have a long history of supporting research activities by acquiring, maintaining and disseminating scholarly information in universities (Corrall, S, 2013; Searle, S; 2015). With the skills and knowledge of information preservation and curation, and with their extremely flexible and responsive attitude, academic librarians can be instrumental in providing training and advice for managing, preserving, sharing and re-use of research data (Cox & Pinfield, 2014; Brown, Wolski & Richardson, 2015). Increasingly the governing committees in academic libraries recognise that RDM is an important strategic priority for research support librarians to provide to their parent institution, and that the library could take the leading role in supporting RDM (Cox & Pinfield, 2014; Rambo, N, 2015). At the

same time, it becomes evident that RDM is a very complex process that happens at every stage of the entire research life cycle (Brown, Wolski & Richardson, 2015; Pryor, 2012); therefore, it is a priority for librarians to closely align their work in this area with other organisational units within the University. This requires librarians to build and maintain relationships with both external as well as internal RDM stakeholders.

Since its establishment in 2011, the UQ Library Research Data Management Team have maintained a proactive campaign, actively engaging with critical organisational units within the University of Queensland and essential external data service providers such as the Australian National Data Service (ANDS). The purpose of this paper is to describe the practices adopted for engaging stakeholders and to share the outcome achieved in terms of supporting for RDM best practice. The paper consists of two sections: firstly, the paper describes the strategies and approaches developed to engage all stakeholders including faculty librarians in the RDM campaign; and secondly, the paper presents what has been achieved so far as the result of engaging stakeholders and bringing the UQ research community on board with RDM best practice.

BACKGROUND

The University of Queensland (UQ)

The University of Queensland (UQ) is a comprehensive and research-intensive institution. The University has six faculties and nine research institutes, many with a multidisciplinary focus. UQ is a partner in the Translational Research Institute – an Australian-first that represents the future in biomedical research; and there are 1452 "Research focused" staff (UQ Key Statistics, viewed 14 March 2015, http://www.mis.admin.uq.edu.au/Content/UQKeyStatistics.aspx). In 2015, The Australian Research Council announced more than $8 million in funding for 22 University of Queensland-led research projects. UQ's total research outputs for 2015 were 8015 items. The top subject areas of these research outputs include Medicine, Chemistry, Biochemistry, Genetics and Molecular Biology, where large amount of research data have been generated. Infrastructure and storage space for research data are jointly provided by UQ Information Technology Services (ITS), UQ Research Computing Centre (UQRCC), and Queensland Cyber Infrastructure Foundation (QCIF). Some faculties, schools and centres also have their own storage facilities and IT support.

The University of Queensland Library and the Research Data Management (RDM) Team

In response to the emerging trend in libraries providing support to the whole research life cycle, the UQ Library established a new division – the Scholarly Publishing and Digitisation Service in 2011. This section has grown significantly in the last five years, and has recently been renamed as the Scholarly Communication and Repository Services. There are three units within this new division: Scholarly

Publications, Research Outputs and Impact, and UQ eSpace, the latter is the institutional repository. The Head of the Division is a former researcher with a PhD in Physics.

The Research Outputs and Impact unit consists of the Metrics Team and The Research Data Management team. The Manager of the Unit is a former clinical researcher who previously worked in Queensland Health hospitals and a UK clinical research institute. The Research Outputs and Impact unit maintains expertise across the two broad areas of research evaluation and RDM. The research evaluation work focuses on strategic reporting at whole of University or country-level, whereas the RDM work is more researcher-focused.

Specific goals for the RDM Team also include: 1) to raise RDM best practice awareness within the UQ research community, 2) to get researchers to promote RDM best practice in their groups, and 3) to provide expertise to the senior management of the University when developing RDM policy and procedures.

There is one senior librarian and six librarians within the Research Outputs and Impact Unit. Each staff member has a primary role; however, all staff in the unit are required to be flexible and responsive and be able to support one another when required. Out of the seven librarians, two are mainly responsible for RDM – they effectively lead the RDM Team. Both have a librarianship degree with extensive experiences in academic libraries.

Since its establishment, the RDM Team have been making every effort to outreach and engage with stakeholders within and external to the University. Under the leadership of the library management, the team designed systematic, flexible and strategic approaches to start the RDM engagement campaign.

STRATEGIES AND APPROACHES

The physical size of the University and the complexity of organisational structure, as well as the extremely wide range of research areas, present a significant challenge to developing RDM services and support at UQ. RDM in a research institution such as UQ entails three main components: Policy & Procedures, Infrastructure, and Services. To successfully implement RDM best practice within UQ requires a joint effort of, and a close partnership with, the stakeholders at all levels. In their library-oriented model of Institutional RDM, Pinfield, Cox and Smith (2014) identified six "stakeholders and drivers who would influence and shape RDM within an institution: Library, IT Services, Academic Departments, Senior University Managers, Research Support Services and Other Support Services" (p.23). Similar stakeholders were identified within UQ. These stakeholders include: The Office of Deputy Vice-Chancellor (Research), the Research Integrity Office, the Information Technology Service (ITS), the UQ Research Computer Centre (UQRCC), research administrators from faculties and schools, researchers, and faculty librarians. External data service providers such as the Australian National Data Service (ANDS) and Queensland Cyber Infrastructure Foundation (QCIF) were also identified as stakeholders as they provide RDM best practice framework and guidance. Figure 1 shows the multiple stakeholders that the RDM Team have been interacting and engaging with.

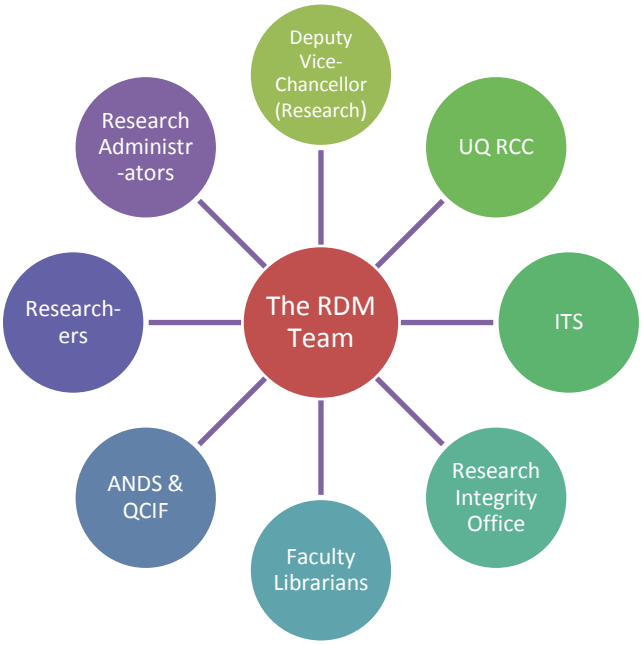

Figure 1 – Stakeholders that the RDM Team have been engaging with

In order to successfully engage with our stakeholders, the RDM Team require knowledge and in-depth understanding of the concepts and real RDM practice. It is equally important to fully understand institution's strategic goals, and to familiarise oneself with the government's and major funding bodies' research data management requirements, data policies from journal publishers, as well as the Australian Code for the Responsible Conduct of Research. Discussions with the stakeholders are more effective with knowledge and understanding of RDM best practice. For this reason, the RDM Team members have taken every opportunity to participate in training offered overseas as well as in Australia, such as free online modules produced by UK Digital Curation Centre (DCC), and guides on the national data service provider.

For the RDM Team, it is also beneficial to understand UQ's organisational structure and the roles and responsibilities of each unit, so that the approach to each

stakeholder can be strategically adapted based on their needs and requirements. The team members took every opportunity to get involved in the University research activities, talking to people, making connections and participating in seminars and conferences.

Equipped with knowledge and skills in RDM, with the support of the Library management, the RDM Team designed a systematic approach involving several phases to engage all stakeholders:

- Working with the University policy makers
- Gathering user feedback
- Gaining support from IT services
- Establishing good relationship with research administrators
- Making connections with external data service providers
- Training librarians to be able to provide basic support to RDM

Working with the University policy makers

Research data policies "provide clarity on what is expected and who is responsible for which activities" (Joans, 2014). The Australian Code for the Responsible Conduct of Research states that institutions have a responsibility to "provide documents setting out clearly the policies and procedures based on this Code". For the University to take on the RDM responsibilities, the first logical step was to establish an institutional Research Data Management Policy. This policy can then strategically drive management of research data within the University. The Office of the Deputy Vice-Chancellor (Research), UQ RCC, and the Research Committees at Faculty and School-levels all played a critical role in developing The UQ Research Data Management Policy. The RDM Team worked closely with those stakeholders,

initiating regular meetings and consultations to discuss the responsibilities of the University and its researchers, the requirements for setting up infrastructures and services for RDM.

Along-side working on The UQ Research Data Management Policy, the RDM Team also designed UQ staff training programs to raise the awareness and to promote best practice in UQ research community. The RDM Team members made contact with and became fully involved in the University Staff Development Program. The Team also formed training partnerships both with the Graduate School and the UQ Research and Innovation Division to include RDM in the Research Integrity Training, and the Essential Knowledge for Research Management Seminar series. A close relationship has also been formed between the RDM Team and the Research Integrity Office, seeking advice on ethics approvals, best practice in terms of data retention, ownership, sharing and access. The Research Integrity Office Manager has been invited to speak to the librarians within and external to the UQ Library.

Gathering user feedback

UQ researchers are the research data creators and the users of the institutional RDM services. To inform the service development, and to set up a system that the researchers are willing to use, meetings and consultations were organised with researchers from different disciplines to seek comments and feedback informally. During these consultations, it became clear that setting up a holistic research data storage service was the common concern among UQ researchers – they needed a secure, easy to access and easy to use project-led and collaborative data storage infrastructure. Based on this finding, the RDM Team decided to gather targeted feedback in order to identify the gaps in existing services and infrastructure, and

make recommendations for new services. The feedback also provided insightful information about the stakeholders, allowing for targeted future design of further engagement strategies and service development.

The feedback was gathered from the end of May to the end of June 2014, using an online form distributed after RDM training sessions. The feedback form consisted of 18 questions that covered areas such as current and maximum size of research data sets, the range of formats data was stored in, where data was being stored, whether researchers intended to keep their data in the future (future storage requirements), and what other data storage, data management services, or infrastructure was being utilised by UQ researchers.

There were 104 completed responses by UQ researchers. While “My Computer” and “External Hard Drive” were the most popular options for researchers to store both their active data and archived data, many utilised School servers/Faculty servers/Centre servers as the data storage. This result clearly indicated that the researchers expect for the University to have the responsibility to provide and support data storage infrastructure.

The user feedback also showed that the researchers wanted the University to promote RDM best practice and direct them to use secured, well managed and properly backed-up storage solutions; and that the University needed to provide and advertise central unified storage solutions to UQ researchers.

There was a clear indication from the gathered feedback that the senior management of the University, ITS, and research administration all have responsibilities in RDM. This confirmed the stakeholders the RDM Team have identified who have the influence and who can drive the RDM within UQ.

Gaining support from IT services

As clearly demonstrated in the researchers' feedback, IT Services in the University are instrumental in providing RDM services. Over the past 3-4 years, as managing research data has become a strategic priority for the University, the demand for UQ ITS to provide a secure, sustainable and easy to use research data storage infrastructure has increased dramatically. For the RDM Team to work with IT Services on data storage provision proved to be challenging as traditionally it is perceived that this is outside the range of library services. The RDM Team made initial connection with IT Services via the Library Technology Service staff and the UQRCC Director. With their support and endorsement, the team members became acquainted with individual IT managers, and arranged individual follow up meetings with them. The team members were also invited to participate in the Research Storage Working Group looking at University wide research data storage options for researchers. Taking advantage of these opportunities, the team members explained the benefits of good stewardship of research data and the joint responsibilities of both the University and researchers to manage research data. The Team also introduced the RDM services provided in the Library, and the role of the institutional repository, UQ eSpace. Subsequently, the RDM Team have been invited to further meetings with researchers to discuss about research data storage options and related security/access control issues.

Establishing good relationship with research administrators

Another group of stakeholders that the RDM Team identified and constantly interact with is the UQ Research Administrator Network (UQRAN) Group. This group consists of research administrators from Faculties, Schools and Centres. The

purpose of engaging with this group is to raise their RDM awareness and to increase their knowledge of RDM best practice, as this group are the front-line research support staff. The engagement with this group might not produce tangible results such as establishing research data facilities, however, to get research administrators on board will have a strong positive effect on the RDM best practice campaign. The RDM Team not only attended their meetings whenever they could, but also offered to present on the library research support services, including the RDM service. These presentations also included introductions of new tools, new resources and new development in RDM service.

One way to connect with research administration is to get directly involved in their research support work. Contributing to UQRCC monthly Newsletter is one such case. UQRCC started producing a Newsletter in 2015. The RDM Team have been contacted to write a regular column promoting RDM concepts, guidelines, best practice and training activities in the Newsletter, which was valued highly by the Centre Director.

Making connections with external data service providers

There are two external stakeholder groups that the RDM Team have been engaging with regularly and actively – The Australian National Data Service (ANDS) and the Queensland Cyber Infrastructure Foundation (QCIF).

ANDS is funded by the Australian Government to develop research data infrastructure and enable more effective use of Australia's research data assets. They work with partners and communities through funded projects and other collaborations, deliver national services such as Research Data Australia and

Cite My Data, provide guides and advice on managing, producing, sharing and reusing data, and build the Australian Research Data Commons.

The engagement activities with ANDS include using the knowledge network by attending ANDS workshops, online webinars, participating in the 23 (research data) Things – an online data management training program organised by ANDS. In addition, the RDM Team actively seek strategic funding opportunities provided by ANDS on building significant research data collection projects.

QCIF provides the high-performance services, infrastructure and support required to achieve excellence in computation and data-driven collaborative research and its application in industry. QCIF operates with its members and partners delivering services to researchers throughout Queensland.

Many UQ researchers utilise QRIScloud – the storage space provided by QCIF. Metadata records are created and stored along with the datasets and data collections stored on QRIScloud. It is desirable then to capture the metadata for these datasets and data collections produced by UQ researchers and to store them in UQ eSpace, therefore enabling the University to keep track of all UQ research data. The RDM Team have been proactively collaborating with QCIF staff investigating a work flow set up to harvest the metadata records of the data collection from QRIScloud into eSpace.

Training faculty librarians to be able to provide basic support to Research Data Management

There are three faculty teams within UQ Library Learning and Research Services Division. Each liaises with two academic faculties. The faculty librarians have a long

established relationship with their researchers and are well respected in the UQ research community. Without the support of faculty librarians, the RDM Team would be limited in connecting to UQ researchers to provide RDM services.

To train librarians so that they are equipped with knowledge and skills to support RDM, a tiered training program was developed at the beginning of 2013. The training consists of three levels, delivered as a series of face-to-face workshops.

Level one focuses on data management awareness and understanding. It provides an overview of the UQ Library Model of Service Provision for RDM, the importance of RDM, UQ Research Data Management Policy, the tools UQ Library provides and Australian and international data management trends. The workshop also covers how to help researchers create a data management plan.

Level two was an interactive session of data management FAQs, which provided an opportunity for librarians to discuss about any RDM related issues. Some of the session's components included: 1) understanding the University's and researchers' responsibilities for data stewardship under the Code; 2) understanding from where data management help and advice can be sourced; 3) creating appropriate data management plans for research projects.

Level three aimed at developing in-depth knowledge and skills in RDM Service Provision, examining current RDM issues at UQ, and how to communicate RDM best practice to UQ researchers.

The faculty librarians were also encouraged to participate in related workshops, attend seminars and online programs offered both within UQ and externally. For example, the recently launched online training program 23 (research data) Things by

ANDS is widely promoted within UQ Library. UQ Thing 1-12 Crash Course was coordinated by the RDM team and presented by ANDS trainers.

OUTCOMES

Through actively engaging stakeholders at all levels within UQ, the RDM Team have achieved encouraging results. These results demonstrate how deep engagement with stakeholders within and outside the University enables us to deliver an effective and innovative service, and thereby make a significant contribution to RDM at UQ.

UQ Research Data Management Policy was published in 2013

UQ started addressing a RDM policy in 2012. The RDM Team made significant contributions to the establishment of the policy. The RDM Team's contribution involved monitoring the data management landscape, both in Australia and globally, providing expert advice, recommendations and high level support to the policy development process. The RDM Team worked with the Director of UQRCC and the Director, Research Analysis and Operations, drafting the Research Data Management Policy. The draft was submitted to and approved by the Research Committee and Academic Board. The UQ Research Data Management Policy was published in November 2013.

Another significant achievement was being invited to participate in the University-wide Enhancing Systems and Services (ESS) Program. The aim of ESS is to improve administrative activity and processes that impact on the core academic purpose, and to empower staff and build a continuous improvement culture and capability UQ wide. They are currently working on construction and pilot testing of

an integrated data management plan (iDMP) that can link to provisioning and storage, and form a durable index (registry) of Research Data metadata at UQ.

The Online Data Management Planning tool DMP Online was implemented in 2014

The UK based Digital Curation Centre (DCC) developed a web based tool, DMPonline, that provides predesigned data management plan templates based on funding bodies' requirements. It is a simple, easy to use interface where users can create and save a data management plan, share it among collaborators and export whole or parts to be part of an official document such as a grant application. UQ Library obtained the software from DCC, liaised with UQ Information Technology Services, and successfully implemented the DMP Online tool in March 2014.

In Australia, funders' requirements for RDM started to become evident in 2015. Using DMP Online to produce data management plans can assist not only researchers to comply with ARC's and NHMRC's requirements, but also educate researchers about the good stewardship of research data. Within UQ, DMP Online was promoted to Research Higher Degree students, early career researchers, as well as to supervisors and senior researchers. It has proved to be an essential tool for UQ researchers to effectively manage their project's research data. Consequently, further integrating a DMP tool has become one of the priorities for the University wide ESS Program.

Thomson Reuters' Data Citation Index database started harvesting UQ eSpace repository metadata records in 2014

Data citation underpins the recognition of data as a primary research output rather than as a by-product of research. (ANDS Data Citation Guide) Storing UQ data

records in UQ eSpace and making them openly available where possible, increases a researcher's profile and creates potential collaboration opportunities. As well as being indexed in Google, UQ eSpace data records are also ingested into Research Data Australia (RDA), a service provided by ANDS. It retrieves data resources across a wide range of subjects and providers. RDA began automatically harvesting from UQ eSpace in 2013. Data records entered in UQ eSpace appear in RDA the next day and manual importing is also possible if necessary.

In 2013, RDA collaborated with Thomson Reuters to pilot a project on ingesting data records from RDA into the Data Citation Index (DCI). In 2014 the RDM Team started working with RDA to ingest UQ eSpace records into the DCI via RDA. UQ was the second institution in Australia to ingest records into the DCI, with the first batch of UQ eSpace data records appearing in the DCI in December 2014. The success of this project was significant because the end result is that now UQ data records can be cited, and those citations can be tracked, in much the same way as journal articles are. UQ eSpace data records being indexed in the DCI has boosted the RDM campaign within UQ. UQ researchers have noticed that having data records in UQ eSpace can increase citation and can potentially lead to more collaboration opportunities.

ANDS funding was obtained to support two research data collection projects

In 2014, UQ Library was successful in securing the ANDS Major Open Data Collection (MODC) grant application. A grant was awarded to digitise the Indigenous Languages as part of the Queensland Speech Survey conducted in the 1960s. This project was highly valuable because it ensured the long-term preservation of some of these languages that are no longer spoken. The RDM Team collaborated with Office

of PVC (Indigenous Education), academic staff, aboriginal communities, IT, and research administrators to ensure the successful delivery of the project. The project was finished on time, and the interactive search interface was launched nationally as well as in the local community. The partnerships formed during this project continued as soon after the academics obtained an ARC grant to work on another indigenous language research project.

Another ANDS funded project was awarded to the UQ Library in January 2016 – The Publication Driven Data Sharing Initiative. The aim of the project is to identify subsets of UQ publications published in 2015-2016 and create repository records in UQ eSpace for the research data directly underpinning each publication. Where possible, the data will be made openly available and DOIs will be assigned to the datasets.

UQ researchers who become involved in this project will be encouraged and supported to deposit their publication-related datasets into UQ eSpace at the point of manuscript submission for all of their future publications, and to cite their own research datasets according to best-practice. This will meet an existing need for authors submitting manuscripts to journals that require data for review prior to publication.

The University can benefit from this project by setting up institution-wide best practice in RDM processes. Durable research data are essential to justify, and defend when required, the outcomes of research. Good stewardship of research data can increase the efficiency and maintain the integrity of research results.

A work flow was established to harvest data records stored on Queensland Cyber Infrastructure Foundation (QCIF) and UQ local storage facilities

QCIF provide data storage space for many UQ researchers. The RDM Team have been collaborating with QCIF to set up a work-flow to capture metadata of datasets held on the QCIF storage. Both QCIF and the RDM Team are committed to the improvement of the RDM services and investigating optimal ways of harvesting metadata records. Such methods may include the utilisation of APIs.

This work flow system can also be used to harvest metadata records of datasets stored on UQ's local storage facilities, such as storage space provided by research institutes, schools and centres. Providing seamless and automated work flow will significantly improve the RDM service within UQ.

The RDM training was integrated in the University training programs

The training run by the RDM Team is highly valued by the University. Since 2012, RDM training has become part of the UQ Staff Development course and offered to all UQ staff 4 times a year. This two-hour course consists of a presentation and hands-on exercises combining theoretical concepts and practical technical tips. The course has been successful and recommended by research administrators as well as research supervisors.

Working with the Research Integrity Office, the RDM Team contributed to the RDM component in the Research Integrity Online Module. This online module is a compulsory training program for all Research Higher Degree students.

As well as the formal training, the RDM Team are invited to run seminars, to deliver short talks, mini presentations and any customised training. Engagement with the UQ Graduate School and the Office of the Deputy Vice-Chancellor (Research) has resulted in the RDM presentation becoming an integral part of Research Integrity

Training for new Research Higher Degree students and their supervisors, and Essential Knowledge for UQ Researchers Seminar Series.

UQ Library Data Management Service Levels were established

The UQ Library Data Management Service Levels were set up in 2013, as shown in Figure 2. By having a tiered approach to service provision it allowed library staff to get on board with providing a service to researchers' sooner. Having completed the three levels of training illustrated in the Methods Section, faculty librarians have knowledge and skills to deal with general RDM queries, with full support of from the RDM Team available for them when dealing with complicated issues. Further, working collaboratively with the RDM Team, faculty librarians are able to offer basic awareness RDM training to their researchers and PhD students.

RDM promotional materials such as the DMP Checklist and RDM service pamphlets are developed for faculty librarians when they go out and meet their researchers.

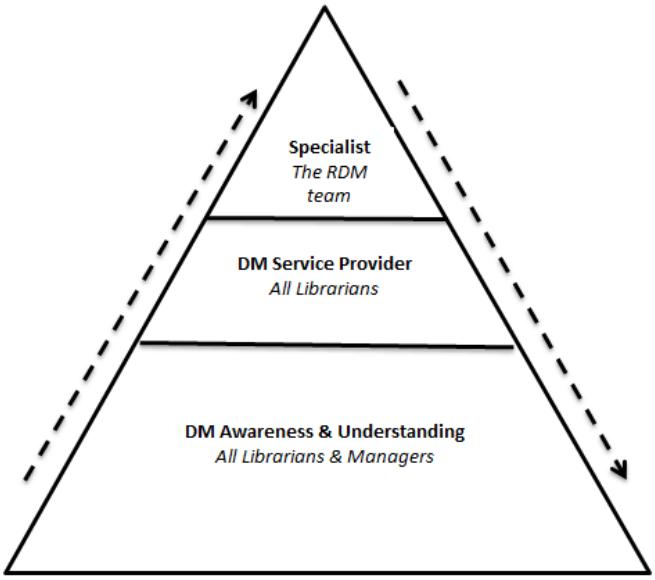

Figure 2 – UQ Library Data Management Service Levels

CONCLUSION

Academic libraries play a vital role in research data management in universities. To succeed, the library needs to build and maintain relationships and partnerships with multiple internal and external stakeholders at all levels. In this paper the authors have highlighted the identified stakeholders, both within and external to the University, and discussed the strategies adopted to engage these stakeholders. The authors also listed encouraging results and evidence in terms of heightened awareness of RDM requirements, infrastructure resources and support services throughout the University since the commencement of the RDM best practice campaign in 2011.

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