

Establishing Digital Preservation At the University of Melbourne

Jaye Weatherburn
The University of Melbourne
Parkville, Victoria 3010, Australia
jaye.weatherburn@unimelb.edu.au

ABSTRACT

Through 2015-2016, the University of Melbourne is set to achieve the Establishment phase goals for the implementation of digital preservation processes. These goals are detailed in comprehensive Roadmaps, which in turn were developed from the University's Digital Preservation Strategy 2015-2025 [1]. While the Strategy requires implementation across four interrelated areas of digital product, two areas have been prioritized: Research Outputs and Research Data and Records. The phased Roadmaps have been developed to address the challenges inherent to both of these areas. The Roadmaps are comprehensive across organization, culture, policy, and infrastructure, to ensure that the University of Melbourne addresses the challenge of digital preservation of assets through an ongoing commitment to capability building, training, knowledge exchange, advocacy, and ongoing investment in infrastructure (both people and technology). Realizing this vision will support the University's functions, accountability, and legacy.

Keywords

Preservation strategies; Research data; Research outputs; Long-term accessibility; Digital preservation.

1. STRATEGY BACKGROUND

The University of Melbourne's Digital Preservation Strategy articulates a clear vision: to make the University's digital product of enduring value available into the future, thus enabling designated communities to access digital assets of cultural, scholarly, and corporate significance over time.

The Strategy's Establishment phase is being realized during 2015-2016, through clearly developed goals provided by associated Roadmaps. The long-term, ten-year vision of the Strategy requires implementation across four interrelated areas of digital product, in three phases.

The four interrelated areas:

1. Research Outputs
2. Research Data and Records
3. University Records
4. Cultural Collections

The three phases:

Phase 1: Establishment (2015-2016)

Phase 2: Implementation (2016-2017)

Phase 3: Embedding (2017-2025)

The activities stipulated in each phase are underpinned by four key principles around which action is required: Culture, Policy, Infrastructure, and Organization.

2. INSTITUTIONAL CONTEXT

The University of Melbourne aspires to be a public-spirited and internationally engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and knowledge transfer. These aspirations are outlined in the *Growing Esteem* strategy [2].

The University's research strategy, *Research at Melbourne* [3] recognizes the importance of digital assets by declaring that the digital research legacy of the University must be showcased, managed, and preserved into the future. At the same time, open data, open science, and open access initiatives are gaining momentum globally, reflecting changing expectations of government, funding bodies, and the broader community around appropriate access to research product.

Students, researchers, and academics at the University of Melbourne generate and control a considerable number of digital collections of significance. As the number and size of these collections grow, expectations around preservation and access to these digital products – particularly research products – are changing. This is driven by the evolving expectations of researchers, research funding bodies and the broader community. It is within this context that the Digital Preservation Strategy and implementation Roadmaps were endorsed at Academic Board in late 2014.

The Strategy aligns with the University's future-focused motto: *Postera Crescam Laude*: 'We grow in the esteem of future generations' [4], whilst working within the newly implemented, University-wide Melbourne Operating Model (MOM) to realize its goals. The MOM supports a professional services team that aims to provide seamless, easily accessible services to students and academics, so that they can focus on scholarly pursuits.

The MOM encourages innovation, collaboration, and creativity, making for an interesting organizational context to fit digital preservation practice and processes into. Although connected by centralized IT services, various units and departments are still finalizing changes, processes, and ways of operating in the new model, which commenced in 2015. Existing workflows between units must be analyzed, with opportunities for continuous improvement identified, before attempting to introduce digital preservation requirements. An assessment of the qualities, attitudes, and experience levels of staff working in research data and outputs management is also imperative, in order to establish preservation as an integral University process.

The MOM has set the stage for digital preservation to step onto. It acknowledges that every staff member brings a unique set of skills to their work, while increasingly merging and combining these skills into a shared set of seamless processes. The emphasis on shared values for service staff, imparted in various training programs run by the University, will aid the establishment of the Digital Preservation Strategy by encouraging autonomous, creative contributions from skilled workers.

It is becoming evident that the project team members starting the Establishment phase have a vital role to immediately begin a comprehensive, wide-ranging advocacy campaign to many different stakeholders, using jargon-free, discipline-specific examples to illustrate the importance of preservation. Instead of digital preservation being perceived as an extra bureaucratic and financial burden or an 'IT system', the challenge is to present it as a useful tool for future branding and profiling for academics, and also for long-term sustainability of their

important research. To emphasize the importance of this component, the Roadmaps prioritize the Organization and Culture aspects of this Establishment phase, before any work is done to determine the more tangible technological infrastructure solutions.

3. PRIORITY ROADMAPS

3.1 Research Outputs and Research Data

While an awareness of the issues, challenges, and requirements for managing and preserving University Records and Cultural Collections must be included in the planning stages of this project, for the purposes of the first Establishment phase in 2015-2016, the Research Outputs and Research Data and Records Roadmaps [5] remain the priority. These two areas have been prioritized due to changing expectations of research funders, government, and the broader community around access to research data and records, and the need to establish a centralized repository for research outputs at the University. Also of high priority is the need to develop and implement consolidated workflows for research data management. It is imperative that the University of Melbourne begins establishing robust infrastructure for managing research data to prepare for a time when funding bodies may mandate and enforce that research data be made openly available.

3.2 Roadmap Goals and Actions

Actions have been identified for addressing each of the Roadmap goals. For the Research Outputs Roadmap, the first phase involves preservation of research outputs using current University infrastructure, and the second phase focuses on the role of the University's planned digital archiving service for preserving research outputs, and also its relationship with the institutional repository. These two phases will be undertaken iteratively, requiring individual business cases for requesting funding. Progress will be monitored against the University's Digital Preservation Strategy, as well as the closely related Roadmap for Research Data and Records.

The Research Data and Records Roadmap is organized into three phases, which will also be undertaken iteratively. Actions include:

- Development of an engagement plan and training framework that articulates the transition in knowledge from research data management to digital preservation
- Implementation of a digital research data repository and digital archiving service underpinned by policy and standards to facilitate preservation of data
- Reviewing and aligning University policies, workflows, and processes related to the management and preservation of research data and records
- Consolidating and coordinating the University's services for supporting the management and preservation of research data and records

4. FROM STRATEGY TO ACTION

Over the first twelve months of establishing the Strategy through the priority Roadmaps, the objectives include:

- Establishing a Panel of Knowledge Experts to guide an engagement plan to educate and advocate University-wide about the benefits and importance of preservation through targeted communications and training strategies, both across the professional staff services area, as well as across academic faculties
- Reviewing and consolidating current digital processes and workflows with regard to management of research outputs and data
- Reviewing and updating University policies, after gaining agreement on the proposed digital processes and workflows to be implemented for preservation
- Developing functional and non-functional requirements for the implementation of a preservation platform

In addition to these goals, an environmental scan of large national and international research institutions engaged in digital preservation projects will be conducted in order to relate relevant elements of their work to the institutional context of the University of Melbourne. It is hoped that this environmental scan will be of use to the wider digital preservation community.

5. ACKNOWLEDGMENTS

My thanks to key contributor Leo Konstantelos in his role as Manager, Digital Scholarship, and Donna McRostie, Associate Director, Research Information Management, both at the University of Melbourne. Many thanks also to Adjunct Professor, Ross Harvey, RMIT University, Melbourne, Australia.

6. REFERENCES

[1] The University of Melbourne Digital Preservation Strategy 2015-2025 (Vision Mandate and Principles) <https://minerva-access.unimelb.edu.au/handle/11343/45135>

[2] The University of Melbourne Strategic Plan 2015-2020 https://about.unimelb.edu.au/__data/assets/pdf_file/0006/14620/65/11364-GROWING-ESTEEM-2015-FA-WEB.pdf

[3] Research at Melbourne: Ensuring excellence and impact to 2025 http://research.unimelb.edu.au/__data/assets/pdf_file/0011/1665/722/MelbUniResearchVision_Apr2013.pdf

[4] The University of Melbourne <http://about.unimelb.edu.au/tradition-of-excellence>

[5] University of Melbourne Digital Preservation Strategy 2015-2025 Implementation Roadmaps <https://minerva-access.unimelb.edu.au/handle/11343/45136>