



Northwestern University

The IMLS-funded MAP pilot, organized by the California Digital Library and the Association of Research Libraries, explored how machine-actionable data management plans (maDMPs) could streamline infrastructure, coordination, automation, and research data stewardship.

Using maDMPS for collaboration and coordination



INTRODUCTION

Northwestern University (NU) launched its maDMP pilot to examine the institutional roles, infrastructure, and collaboration required for effective implementation of machine-actionable data management and sharing plans. The pilot aimed to improve coordination across research services, develop shared tools to support researcher workflows, and identify ways to reduce duplicated effort across the campus.

Case Study



BUILDING CAMPUS-WIDE CONNECTIONS

To understand local needs and identify current service gaps, the team conducted a landscape analysis of research administration and data services at NU. This analysis revealed overlapping responsibilities and communication gaps, particularly among units with differing reporting structures. To address these challenges, NU created a shared service portal to coordinate research data management support and consultations across departments. This

centralized platform allowed units to share their areas of expertise, highlight available services, and share consultation responsibilities. It included links to current guidance from the Office for Research, IT, and Galter for data management and DMP creation. By bringing together tools, documentation, and points of contact, the portal served as a practical foundation for collaborative RDM support and laid the groundwork for future service integration.

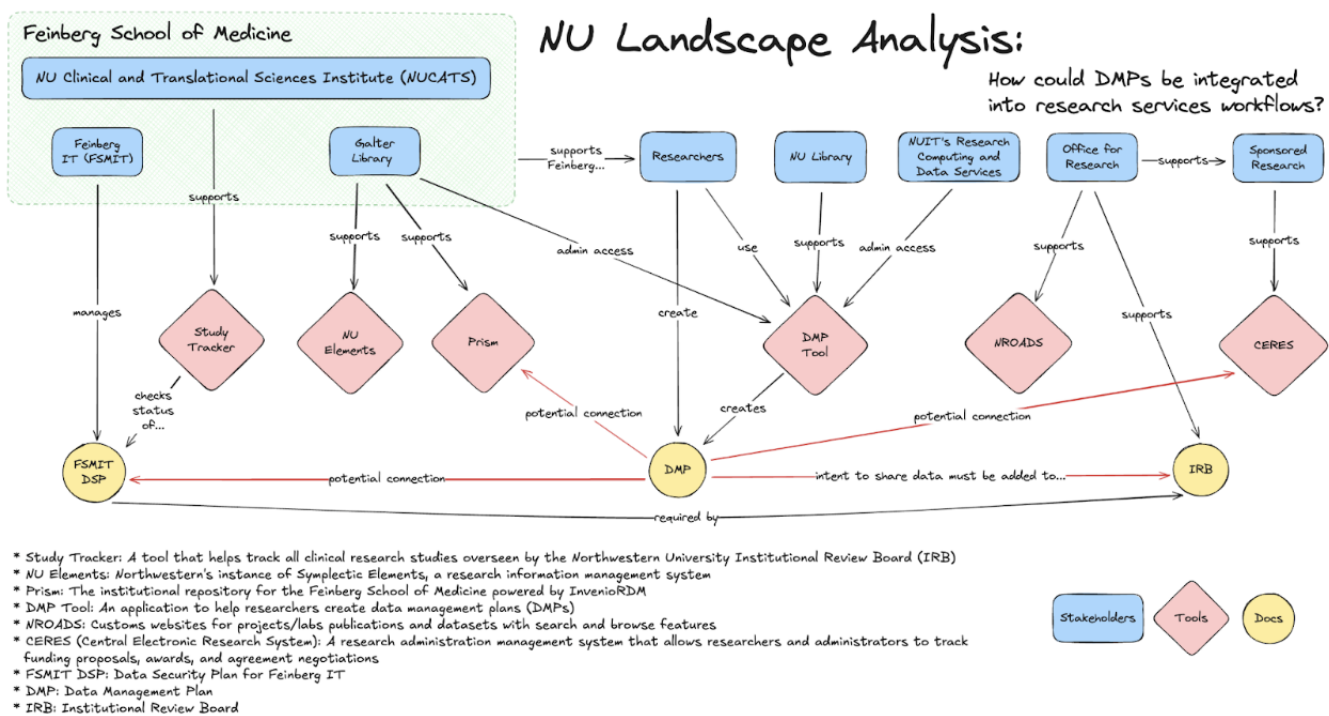


Figure 1: A flowchart depicting the NU landscape analysis. The NU team identified a subset of stakeholders, tools, and documents associated with research services at the university that could potentially benefit from content in DMPs, either by extracting the information using the DMP Tool API or by linking the DMPID in existing documents.

In partnership with the Northwestern University Clinical and Translational Sciences Institute (NUCATS), the team also developed NIH DMP templates tailored to specific funding programs. These were made openly available through the DMP Tool and Zenodo to encourage reuse and support researcher compliance with new NIH data management and sharing requirements.

The pilot emphasized the importance of sustained engagement. NU held regular cross-unit meetings and established a quarterly data-sharing forum to maintain open communication among stakeholders, including the Galter Health Sciences Library, Research Computing IT, and the Feinberg School of Medicine.

The pilot identified a strong need for increased infrastructure, IT security, and data governance to support campus-wide maDMP adoption. Leadership involvement and clear policies were seen as essential to driving institutional change.

Despite structural challenges, there was broad alignment among partners about shared goals. Many expressed enthusiasm for improving coordination and reducing redundancy. A key lesson was that involving decision-makers earlier in the process could have accelerated progress.



KEY OBSERVATIONS

While the project improved awareness and engagement amongst pilot partners, significant barriers to implementation remained. Siloed structures and staff turnover slowed progress and made coordination more difficult. Some teams expressed frustration over a lack of compliance enforcement, which hindered resource planning and follow-through on DMP commitments.



FUTURE DIRECTIONS

Northwestern University plans to continue working to increase communication across campus units by enhancing shared infrastructure, strengthening partnerships, and reducing service overlaps. A new proof-of-concept with the Office for Research is planned. It will test the implementation of automated notifications via the DMP Tool API when a plan references managed institutional resources.



STRATEGIC RECOMMENDATIONS FOR INSTITUTIONS

Establish a Cross-Campus Service Coordination Mechanism

- Create a shared platform or portal to consolidate data services, consultation pathways, and institutional guidance across library, IT, and research units.
- Use this platform to clarify responsibilities, reduce duplication, and improve the researcher experience.
- Emphasize transparency, make documentation, contacts, and service scopes easy to find and update.

Involve Decision-Makers Early and Often

- Bring in leaders from research administration, IT, compliance, and academic units at the outset to align priorities, address structural silos, and sustain momentum.

- Early engagement helps set expectations around compliance, governance, and resource allocation, which are critical for follow-through and infrastructure investment.

Build and Sustain Communication Infrastructure

- Regular cross-unit meetings and recurring data-sharing forums were key to NU’s progress providing space for shared learning, updates, and troubleshooting.
- Make this communication part of institutional practice, not just project-specific especially important to weather staff transitions and maintain alignment.



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