IDENTIFYING RDM DRIVERS, GAPS AND OPPORTUNITIES: A BASELINE ASSESSMENT

Emily Maemura1, Dylanne Dearborn2, Leanne Trimble3, Matthew Gertler3, Christoph Becker1,4

1 Digital Curation Institute, Faculty of Information, University of Toronto; 2 University of Toronto Libraries; 3 University of Toronto Scarborough Library; 4 Vienna University of Technology

RESEARCH DATA MANAGEMENT AT THE UNIVERSITY OF TORONTO

In 2012, a Working Group was established to develop a strategic approach to Research Data Management (RDM) within the University of Toronto Libraries (UTL) system in support of all disciplines. The group works collaboratively to set priorities for RDM projects and initiatives, consulting with colleagues and peer institutions to support the research mission of the University of Toronto (U of T).

BASELINE ASSESSMENT OF RDM CAPABILITY

Funding policy changes for data management practices are anticipated and researchers will likely need institutional support to comply. UTL has existing resources and infrastructure to play a key role in RDM at U of T and the Working Group has the opportunity to be proactive in developing the RDM program and exploring internal and external partnerships to meet these emerging needs.

A LIBRARY-ORIENTED MODEL OF INSTITUTIONAL RDM

Our exploratory study builds on previous research and uses the Library- Oriented Model of Institutional RDM1 to assess the current level of services and future directions of the program. This model explores the drivers, influences, and stakeholder relationships, both within U of T’s institutional context and in the wider environment of research in Canada.

STAKEHOLDERS, DRIVERS AND INFLUENCES

DRIVER: COMPLIANCE


GLOBAL CONTEXT

Influence of existing data sharing and management policies in other countries e.g. NSF (US), ESRRPC (UK)

CANADIAN FUNDING CONTEXT

Tri Agency requirements vary. Existing policies for:
• Health Research: retention and sharing
• Social Sciences & Humanities: retention
• Sciences and Engineering: no policies

INTERNATIONAL CONTEXT

Application and Science and Engineering Architecture, Landscape and Design • Arts and Science • Continuing Studies • Dentistry • Education • Forestry • Graduate Studies • Information • Kinesthetics and Physical Education • Law • Medicine • Music • Nursing • Pharmacy • Public Health • Social Work

DRIVER: GOVERNANCE

Institutional and, reports.

DRIVER: DIVERSITY

Institutional diversity and, and provide for digital services.

DRIVER: INSTITUTIONAL STRATEGY

Investment in data as a research asset and product from, and.

HIGH-LEVEL INVESTMENT

Financial support of full-time RDM Librarian position.

RESEARCH FUNDING

$1.2 Billion annual funding for U of T and partner hospitals. 31% of funding is received from Federal Granting Agencies

INFORMATION PEERS

Influence of strategic approaches by other research institutions in Canada and internationally.

STAFF EXPERTISE

Specialization in metadata, archives, liaison subject area knowledge, teaching, IT infrastructure development, scholarly communications, LS FTE Research Data Librarians.

WIDER ENVIRONMENT

Federal Granting Agencies, Peer Institutions, Other Funding Sources

Faculty Researchers, Graduate Students, Research Associates, Postdoctoral Fellows and Scholars, Researchers, Graduate Associates, and Library Staff.

SCALE OF RESEARCH

7,000 Faculty Researchers, 2,700 Postdoctoral Fellows and Research Associates, 16,442 graduate Students, 68,114 undergraduate Students

UTL SYSTEM

44 Libraries, 650 Library Staff, 176 Research Centers and Institutes

LIBRARY COLLABORATION

Shared infrastructure and facilities for digital services provided by the Ontario Council of University Libraries.

WORKING GROUP

Skill-based membership covering broad areas of expertise (e.g. data management, sharing, preservation, infrastructure) representing a variety of disciplines, and all 3 campuses.

PROGRAM COMPONENTS

EXISTING CAPACITY

MAP AND DATA LIBRARY

Accepting data deposit from U of T researchers since the late 1980s. Consultation and support for data creation and management, including metadata.

STAFF EXPERTISE

Specializations in metadata, archives, liaison subject area knowledge, teaching, IT infrastructure development, scholarly communications, 1.5 FTE Research Data Librarians.

UTL INFORMATION TECHNOLOGY SERVICES

Access and preservation services focused on publications, digital collections and repositories. Data storage spans multiple platforms (DataSpace, Dataverse, Islandora) based on data characteristics, user requirements or historical reasons.

INTER-INSTITUTIONAL WORK

Collaborated with peer institutions through:
• ARL E-Science Institute (2012-13) course taken and report developed outlining strategic direction.
• DLF E-Research Peer Network and Mentoring Group (2014)

RECENT PROJECTS & INITIATIVES

NEEDS ASSESSMENT

Conducted a survey of U of T Faculty, now being expanded to 7 additional Canadian universities to look for disciplinary or institutional variation.

SHARING REQUIREMENTS

Analysis of approx. 3,000 publication policies across disciplines. Assessed faculty publishing in these titles and sharing requirements.

COMMUNICATIONS

Developed and launched RDM webpage and email on UTL website.

EDUCATION & ENGAGEMENT

Developed and delivered Graduate Professional Skills course and ‘Speed Data-ing’ event.

INTER-INSTITUTIONAL WORK

Collaborated with peer institutions through:
• ARL E-Science Institute (2012-13) course taken and report developed outlining strategic direction.
• DLF E-Research Peer Network and Mentoring Group (2014)

FUTURE DIRECTIONS & STRATEGIES

RANGE OF SERVICE LEVELS

Develop a framework for baseline, specialized, and in-depth services offerings in key areas like data management planning, education, communication, consultation, policies, as well as data deposit, preservation and discovery.

IT INFRASTRUCTURE FRAMEWORK

Develop an infrastructure framework to support anticipated increased capacity:
• Build a platform to manage U of T digital assets across disparate content repositories, including repositories managed by the library and those housed elsewhere in the university.
• Understand the existing IT uses and needs of U of T researchers and communities.
• Create a baseline digital object repository for assets that cannot be stored in existing repositories.

DISTRIBUTED SKILLS

Build a program to increase UTL staff capacity in RDM, leveraging current expertise and skill specialization.

FACULTY ENGAGEMENT

Form and consult with faculty advisory groups.

REFERENCES


