At the starting line: find your guideposts

ITHAKA Sustainable Scholarship
20 October 2014

Keith Webster
Dean of University Libraries
What is happening in the world is bypassing university libraries

Peter Murray-Rust
The scientist’s view
JISC Libraries of the future debate, April 2009
Researchers and discovery services
Behaviour, perceptions and needs

A study commissioned by the Research Information Network

November 2006

“…contact with librarians and information professionals is rare”

“…researchers are generally confident in their [self-taught] abilities..., librarians see them as...relatively unsophisticated”

“...librarians see it as a problem that they are not reaching all researchers with formal training, whereas most researchers don’t think they need it”
Within five years, graduate students and faculty will fill all their information needs online, never coming into the library.

Libraries will open up their space to other areas of the university, and develop designer spaces for students.

All library collections and services will be delivered from the cloud, and 90% of information needs will be met by non-Library providers.

http://taigaforumprovocativestatements.blogspot.com
Percent of respondents agreeing strongly with each statement, over time.

- Because faculty have easy access to academic content online, the role librarians play at this institution is becoming much less important.
- Because scholarly material is available electronically, colleges and universities should redirect the money spent on library buildings and staff to other needs.

Today’s environment

- We operate in a networked world - local collections in themselves make learning and research incomplete

- We should no longer focus on acquiring the products of scholarship; we must be embedded within scholarship

- New methods of research - open science, digital humanities, etc. - reshape researchers’ needs and demands

- How do we get there?
Current directions in academic libraries

1. Continue the migration from print to electronic and realign service operations
2. Review holdings of legacy collections
3. Continue to repurpose library as primary learning space
4. Reposition library expertise and resources to be more closely embedded in research and teaching enterprise outside library
5. Extend focus of collection development from external purchase to local curation

After Lewis, 2010; Webster 2010; Webster 2012
Make introductions, communicate expectations

Drive to full potential

Plan for the future

Communicate, execute

Review of existing Library/University plans and strategies

Face to face meetings with CMU top-level management - and with all Library staff

Two-way communication of short-term expectations

Development of operating principles

Analysis of Library operations

Analysis of Library cost drivers and structures

Identification of best-practice procedures

Analysis of development plans and opportunities

Analysis of technology strategy

Analysis of marketing strategy

Analysis of new service and innovation opportunities

Formulation of strategy and operational planning

Face-to-face meetings with key stakeholders

Communication of direction and strategies

Review of internal structures and processes

Get on with it!
Do we need to change?

- How do our key stakeholders (faculty, students, donors, Trustees) see us? Cutting edge? Relevant? Old-fashioned? Impacting on university core business?

- The world is changing fast – we must not be left behind, particularly in terms of digital content and services. At a time of budgetary constraint this is a real risk.

- How well is the Library itself functioning? A lean organization? Are we working as a single organization or in silos?

- How do we make decisions? Based on evidence? Rapidly? Proper consultation?

- To what extent do we deliver client satisfaction? Return on the University’s investment? Impact on research? Enhancement of the student experience?
New President, Provost, VP-Research appointed

Mid-2013 - Dean appointed

Changes in external environment

2014 - New library strategy

Strategy phase 1
Key themes:
- Making the case for change
- Restructuring to enable change
- Market focus
- Modernizing our services
- Managing collection as single entity
- E-strategy

Strategy phase 2
Our approach:
- Products & services
- Discipline reviews
- Learning spaces strategy
- Digital science strategy
- External relations strategy

Library strategy
- Vision
- Mission
- Strategic priorities
Strategy phase 1 - Assuming room for improvement

- Create a new vision for the library
- Create shared urgency for change
- Remove obstacles to change
- Create the capability to deliver change
Organizational imperatives

Rationale

- The Library’s leadership team must develop a culture change vision and ‘live’ that culture.

- The leadership team must see an urgency for change. To create this sense of urgency, we need to see the Library as our clients and other stakeholders see us. This is also true of managers lower down in the organization.
Organizational imperatives

Rationale

- The Library needs managers, at all levels, who see the need for change – and who actively drive it. Without a senior (and middle) management team committed to change, nothing will happen effectively.

- Do we have any serious gaps – such as in marketing, product and project management capability, and digital science? Do we have a track record of delivering to time and budget?
Strategy phase 1 - Key early tasks

- More externally focused and market facing
- Rationalised and modernised portfolio of services
- Gain a higher university-wide research and teaching/learning profile; better at working with others
- Effective and efficient management of core functions
- Integrated view of collections and their management
- Modernized people strategy; invest in training
- Catching up with our technology infrastructure
- Refresh all of our buildings

Accelerating the Library’s move into the digital science and open scholarship worlds through the successful development and implementation of a robust strategy
Strategy phase 2 - Questions to shape our thinking

- What does it mean to be a great library in the 21st century?
- How can we serve the needs of a generation of students and early career researchers who have grown up with the Web and make it their first port of call for information?
- How do libraries continue to enrich the research and learning process when increasingly it is happening in a virtual realm outside the context of the library?
- How, as only one of a great number of alternatives available to information consumers, do libraries find new ways of adding value?
Leader’s toolkit

- Metrics
- Foster innovation
- Project and program framework
Old metrics in a new environment?

- Number of books in collection
- Number of items loaned
- Number of questions answered
- Number of serial subscriptions
- Anything that moves and can be counted
Desired position

• Create an organizational culture that supports and drives strategic innovation

• Establish critical capabilities tuned to the evolving academic and scholarly communications landscapes

• Evaluate innovation efforts to ensure both sensible investment and gains in organizational learning and improvement

• Demonstrate impact on institutional mission and priorities

• Inform resource allocation
Driving innovation

• Return on investment
  - Uptake of services; contingent valuation; share of revenues attributable to library investment

• Organizational capability
  - Employees trained in innovation; creation time and space for innovation; links to strategic plan and assessment of innovative developments

• Leadership
  - Sponsorship of innovative programs and projects; % time spent on strategy and innovation compared to routine management
Possible new metrics

• Impact on student recruitment and retention
• Impact on student learning outcomes
• Contribution to research excellence
• Impact on broader economic, social and health outcomes
• Return on investment
The graph shows the relationship between the number of hours spent accessing electronic resources and student marks. The equation is given by:

\[ y = 3.9155 \ln(x) + 57.732 \]

with an \( R^2 \) value of 0.9075.
Figure 2. Extremely or Very Important Facilities in the Selection Decision Process (%)

- Facilities for Major: 73.6%
- Library: 53.6%
- Sophisticated Technology: 50.9%
- Classrooms: 49.8%
- Residence Halls: 42.2%
- Exercise Facilities: 35.6%
- Bookstore: 34.6%
- Open Space: 34.4%
- Student Recreation Facilities: 32.3%
- Science or Engineering Facilities: 29.6%
- Dining Halls: 28.6%
- Performing Arts Center: 21.6%
- Student Union/Center: 21.3%
- Visual Arts Center: 18.3%
- Intramural Sports Facilities: 14.8%
- Varsity Athletic Facilities: 14.2%
Summary finding - Go8 ROI

- The final scenario would result in total costs to the institution of $81.4m compared to actual spend of $34.5m - a financial return of 136 percent

Webster, 2012
Strategy development

Strategy implementation

Strategy review

2013

2014

2015

2016

2017

2018

Operational plan

Projects list

Action plan (annual)

Strategy implementation

Project proposals

Budget allocations

Review and update strategy based on environmental scanning
Project Initiation Document

Project Definition Statement

Risk Analysis

Work Breakdown Structure

Monthly report

Project Review Document

Initiation

Definition and planning

Implementation

Completion
## Project Initiation Document

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Project Purpose</th>
<th>Success Criteria</th>
<th>Project Deliverables</th>
<th>Constraints/ Uncertainties/Risks</th>
<th>Estimated Resources</th>
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## MONTHLY PROJECT UPDATE

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<tr>
<th>SPONSOR</th>
<th>PROGRESS (% whole project complete)</th>
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## REPORT

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<th>DELIVERABLES/MILESTONES</th>
<th>PROGRESS</th>
<th>REASON FOR DELAY?</th>
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## TASKS UNDERTAKEN LAST MONTH

## TASKS TO BE UNDERTAKEN NEXT MONTH

## ISSUES FOR YOU TO RAISE WITH PROJECTS BOARD
(eg resourcing or scheduling problems)
CORE SCHEMA

CONCEPTUAL STRUCTURES

KNOWLEDGE

INFORMATION

USER/CLIENT

COLLECTION/INFO RESOURCE

Recording/Publishing

Operations on content

Personal/collective memory

Info’ Need

User behaviour

Info’ service provision

Curation/Info’ resource management
IFLA Code of Ethics for Librarians and other Information Workers (full version)

Contents

Preamble
1. Access to information
2. Responsibilities towards individuals and society
3. Privacy, secrecy and transparency
4. Open access and intellectual property
5. Neutrality, personal integrity and professional skills
6. Colleague and employer/employee relationship
Further study

Preamble

This Code of Ethics and Professional Conduct is offered as a series of ethical propositions for the guidance of individual librarians as well as other
It is likely that the way that researchers publish, assess impact, communicate, and collaborate will change more within the next 20 years than it did in the past 200 years.
Open access, open data, open science

Increasingly, the “private” nature of academic science is being displaced by a culture of openness - ideas, approaches and observations are shared at the earliest opportunity with colleagues - and sometimes the world at large.

Whilst the ‘version of record’ approach to journal article creation retains validity, this is increasingly seen as a compliance matter - required to meet career objectives and funder/government requirements.
• The part that academic librarians should play remains unclear
• Raise awareness of eResearch amongst library staff
• Provide advice on data management to eResearchers
• Data curation is vast, complex and requires subject input
Australian requirements

1. Intellectual property

2. Data management, including:
   ◦ Storage
   ◦ RetentionDisposal
   ◦ Access, publication, description

3. Conflict of interest — do all parties have the same understanding about the use of the data?

3. Collaboration and contractual agreements

4. Ethics and privacy Compliance
More data will be created in the next five years than has been collected in the whole of human history. Properly managed, this data will form a major resource for Australian researchers.
What’s in Research Data Australia

Collections (94835)
Research datasets or collections of research materials.

Parties (25487)
Researchers or research organisations that create or maintain research datasets or collections.

Activities (40726)
Projects or programs that create research datasets or collections.

Services (188)
Services that support the creation or use of research datasets or collections.

Spotlight on research data

Professor Jamie Rossjohn
The Australian Academy of Science has recently elected Professor Rossjohn as a Fellow in recognition of his research into the structural basis for T-cell recognition of foreign antigens. His research has had a profound impact on the understanding of immune recognition, particularly in autoimmunity and drug and food hypersensitivities. Professor Rossjohn is based at Monash University's School of Biomedical Sciences researching the basis of infection and immunity, specifically host recognition, responses developed by the pathogen and drug design to modulate and/or counteract these events.

Discover collections contributed by Professor Rossjohn in Research Data Australia >>>
Service model

- Data management interview and planning
- Consultancy
- Legal advice
- Pointers to other resources - eg for storage
- Data description and publication
- Long-term preservation
- Feeds to Research Data Australia
Checklist for a Research Data Management Plan

Use this checklist as a guide to help you develop a research data management plan for your research project.

Not all sections/questions will be relevant to your project, simply use this document as a starting point to help you structure your planning process.

The Library’s Research Information Service provides support to researchers and can help you with forming a data management plan.

Please contact us for assistance if required. Contact a Research Librarian

PROJECT DESCRIPTION
Description of the project.

✓ Project title
✓ The aim/purpose of the research

CONTEXT
Provides important administrative information that is essential for the management of the data.

✓ Chief investigator
✓ Researchers/other project members
✓ Main contact details
✓ Collaborators/Partner Institutions
✓ Funding source(s) and requirements
✓ Budget
✓ Duration
✓ Related Policies e.g. Institutional policies etc.

DATA CAPTURE AND FORMATS
Provides a description of the data your project will capture, create or use. It is important to record this detail to help you and subsequent users understand why and how the data was created.

✓ How will data be created (captured)? e.g. interview data, questionnaires, imaging, experimental measurements etc.
✓ What data formats will be used? e.g. File formats such as excel, word, open source etc.
Welcome to DMP Online

*DMP Online* is a tool to help you write a data management plan. The tool has been developed by UQ Library based on the model created by the UK Digital Curation Centre.

Please familiarise yourself with UQ Research Data Management Policy and the Australian Code for the Responsible Conduct of Research before you start.

*Checklist for Research Data Management Plan*

*The User Guide*

A data management plan is a **live document**. Review it regularly throughout the course of the research.

- Start a new plan
- Return to a saved plan
Research Data Management

Welcome

This guide provides information about managing research data. It is intended for staff and students at the University of Queensland.

Guide Index

Getting Started
- Welcome
- Research Data Management
- What is Research Data?
- Tools

What is Research Data Management?

Effective research data management is a cornerstone of the responsible conduct of research.

It ensures that research data are managed according to legal, statutory, ethical and funding body requirements. Research Data Management covers the planning, collecting, organising, managing, storage, security, backing up, preserving, and sharing your data. Research data represents significant value to researchers and the University of Queensland, and good stewardship of research data is necessary to validate the outcomes of research, and maintain the integrity of research results.

Sound data management procedures can:
- Increase the efficiency of research
- Help guarantee the quality and authenticity of data
- Enable the exposure of research outcomes through collaboration and dissemination
- Provide for the reproducibility of experimental and computational outcomes

What is Research Data?

Research data are generated for different purposes and through a range of processes. It can include but is not limited to:
- experimental or laboratory produced data
- simulations generated from test models eg climate, mathematical or economic models
- derivations or compilations for example text and data mining, databases, 3D models
- collections of peer reviewed datasets published eg chemical structures, gene sequence databanks, or literary research
- published research results including tables underpinning the published work.
Making it happen

• Change management
• Selling the vision
• Skills development
• Building connections with researchers
• Policy and institutional support
• What worked and what didn’t
  – Timing of other new services
  – Training and acceptance
  – Access to labs
“To achieve the Administration’s commitment to increase access to federally funded published research and digital scientific data, Federal agencies investing in research and development must have clear and coordinated policies for increasing such access.”

Memo on Increasing Access to the Results of Federally Funded Scientific Research
White House Office of Science and Technology Policy
February 22, 2013
Data Management at CMU Timeline

Dean appointed
July 2013

Data Management Services Group
September 2013

DM Librarian appointed
November
December 2013
Initial presentation to Faculty Senate

January 2014
Faculty Senate resolution

February 2014
CLIR Data Curation Fellows
Draft detailed strategy | Initial consultation | First ‘graduates’ from LIS2975
March 2014 | April 2014 | May 2014
Storage strategy in place

DMP roll-out

First students enter immersive program

July 2014

August 2014

Sept 2014