Creating a connected future through information and digital literacy: Strategic directions at the University of Queensland Library

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Creating a connected future through information and digital literacy: strategic directions at UQ Library

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“We aim to be the top academic library in Australia and in the top 50 globally”

“The Library is an essential element in the strong culture of excellence at UQ”

“Library staff will strengthen the Library’s role as an essential partner in research, teaching and scholarly communication. This will be through engagement and collaboration with all levels of the UQ community, at multiple points in their research, teaching, learning and publishing. In doing so, we will ensure that the Library supports the University’s strategic directions.”

(UQL Strategic Plan 2013-2017)

But - how do we imagine the future for the Library against a backdrop of transformative change?

How do we create a future where we ensure excellence in learning and research across UQ?
The dynamic academic landscape

- Digital technologies create new opportunities for the collaborative co-construction of knowledge
- The active processes of managing, synthesising and re-purposing data and information are highly valued
- We need a clear understanding of how the ways that students and researchers think, interpret and communicate ideas are influenced by their interactions with digital information resources
- Concerns about a patchwork pattern of information and digital literacy skills
- “A university-wide approach... which attempts to involve all faculty and students” is recommended (Alexander et al, 2016, p.11)
Overview

- Background: the strategic directions at UQ
- The strategic value of information and digital literacy (IDL)
- IDL to support learning
- IDL to advance research
- IDL to foster digital scholarship
- Creating a connected future
IDL to support learning

The UQ Student Strategy

1. **Game-Changing Graduates**
   - To graduate students who use their intellectual assets to build meaningful careers, become effective leaders, and turn their ideas into impact.

2. **Student-Centred Flexibility**
   - To provide our students with flexible options that support and service their priorities, meet their expectations and personalise their learning experience.

3. **Dynamic People and Partnerships**
   - To strengthen a dynamic and enterprising culture that supports continued innovation, adapts to change, and is shared, valued and enriched by students and staff.

4. **An Integrated Learning Environment**
   - To build a vibrant, practical and digitally-integrated environment that supports and enhances on-campus learning, community engagement and student life.
The strategic value of information & digital literacy

- Recent research-focused projects relating to digital literacies in the academic world
  - European Union, UNESCO, OECD
  - JISC: a number of funded projects, eg LLiDA (Glasgow), PriDE (Bath), The Digital Department (UCL)
  - Leeds Metropolitan University, London School of Economics, the Open University

- Practical activities
  - CAUDIT, CAUL & ACODE Digital Literacy Working Group
  - Deakin University, La Trobe University, University of Adelaide

- NMC Horizon Reports
  - Watching brief on digital literacies over the years
  - Tracking the shift from one-way learning activities to collaborative content creation
  - Potential to improve digital literacy viewed as a “solvable challenge” (Adams Becker, 2017a, 2017b)
Our understanding of ‘information literacy’

- 2000 Association of College and Research Libraries (ACRL): Information Literacy Standards
- 2004 Australian and New Zealand Information Literacy Framework

The information literate person can:

- Identify
- Find
- Evaluate
- Apply
- Acknowledge

Information
IDL to support the undergraduate community

- JISC
- ACRL

Information and digital literacy represents the core capabilities which fit an individual for living, learning and working in contemporary society. It is the set of integrated abilities encompassing the reflective use of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning.

Learning environment

Image: Janson Hews
The seven elements of digital literacies

- Media literacy: Critically read and creatively produce academic and professional communications in a range of media.
- Information literacy: Find, interpret, evaluate, manage and share information.
- Communications and collaboration: Participate in digital networks for learning and research.
- Digital scholarship: Participate in emerging academic, professional and research practices that depend on digital systems.
- Career & identity management: Manage digital reputation and online identity.
- Learning skills: Study and learn effectively in technology-rich environments, formal and informal.
- ICT literacy: Adopt, adapt and use digital devices, applications and services.
Information and digital literacy: A strategic framework for UQ Library 2016-2020

Guiding principles

The UQL Information and Digital Literacy Strategic Framework is guided by five core principles:

Collaboration
The responsibility for developing information and digital literacy is not limited to UQL staff. Programs are designed and delivered in collaboration with academic staff, learning designers, education technologists and others, with a shared focus on student learning.

Alignment
In the context of teaching and learning: Information and digital literacy is fully integrated into the curriculum and contextualised in students' learning and assessment activities.

In the context of academic research: Information and digital literacy is fully integrated into the research lifecycle.

Innovation
The development of information and digital literacy skills utilises contemporary pedagogies and online tools in new and transformational ways.

Sustainability
The scope and reach of UQL information and digital literacy activities are extended through the adoption of new, flexible forms of delivery and support.

Evaluation
Information and digital literacies are reviewed and evaluated as part of the process of continual improvement.
Current initiatives

- **Collaboration**
  - eLearning co-located with IDL team
  - Online learning resources: ITaLI, Graduate School, Student Services, faculty librarians
  - T&L grant to investigate students’ IDL skills gaps and provide strategies to build skills
  - Sharing practice and ideas across the Library, across the university

- **Alignment**
  - Mapping librarians’ IDL activities across all courses and programs
  - Identifying professional requirements relating to IDL, especially with industry accredited programs

- **Innovation**
  - Digital librarians-in-residence
  - Poster Fairs to showcase impact of IDL activities

- **Sustainability**
  - Communication: IDL newsletter, LibGuide with supporting resources
  - Extending the reach of IDL development – moving into digital content
  - New training activities for students and academic staff

- **Evaluation**
  - Review and feedback
Strategic directions in research

“To achieve its Discovery objectives, UQ will continue to invest strategically to maintain its research facilities, to attract the best researchers, to increase its research performance, and to undertake internationally competitive research.” (UQ Strategic Plan 2013-2017, p.12)

- Significant national and international drivers influencing university strategy and policy
  - In turn impacting on research practice and researcher behaviour
- Changing nature of scholarly communication
- Principles of Open Access and FAIR (Findable, Accessible, Interoperable, Re-usable)
- Increasing emphasis on research integrity
- Growing need to demonstrate the reproducibility of research
- Emerging value of research data as an asset
- All underpinned by ‘digital’
UQL’s touchpoints in the research lifecycle
IDL to advance research

- Information and digital literacies are central to all research activities
- Research collaboration
- Research data management
- UQ eSpace (institutional repository)
- Scholarly publishing
- Research metrics
Data management

- Infrastructure – Training – Tools

- Infrastructure improvements
  - To enable data sharing via UQ eSpace

- Training and advisory services
  - To promote best practice RDM activities to address the knowledge gap and skills deficit

- Integrated data management tool
  - To allow researchers to manage their data, provide seamless data storage and ensure good stewardship throughout the data lifecycle
UQ eSpace My Research Data facility

- Traditional role of the institutional repository – and more
- Strategic drivers: Open Access and FAIR principles
- Goal:
  “for all science literature to be online, for all of the data to be online, and for the two to be interoperable” (The Royal Society, 2012)
- Mandates of funding bodies and scholarly publishers
- UQ eSpace My Research Data facility developed
  - To store data, adhering to quality metadata principles
  - To share data, through open or mediated access
  - To link data to scholarly outputs
  - To aid discovery: records flow through to Research Data Australia, indexed by Data Citation Index
Research Data Management outreach program

- UQL coordinates and runs a range of sessions for the research community
- Collaboration with the Research Management Office, Office of Research Integrity and the Graduate School
- Researchers are presented with a range of avenues to develop knowledge of and skills in research data management principles and practice
- ANDS funded project: UQ Publication-Driven Data Sharing Initiative
  - Detailed understanding of issues and challenges with research data in different disciplines
  - Increased awareness of data citation practices
  - Network of liaison librarians who are engaged in best practice RDM
  - Group of high profile UQ researchers who are encouraged and supported to publish their data sets at the point of manuscript submission or at time of publication
  - HDR students provided with information, tools and resources to support IDL skills
Integrated Data Management Project (iDMP)

- UQ Library: developing and managing the UQ Research Data Manager
- A streamlined tool for researchers, with an intuitive user interface
- Collaboration:
  - Office of DVC (Research)
  - Information Technology Services
  - UQ Research Computing Centre
  - Graduate School
  - Queensland Cyber Infrastructure Foundation
- Integrated RDM services, supported by a training program run by the UQL team
UQ iDMP

Planning, Compliance & Best Practice

Organising & Managing

Storage & Security

Sharing & Publishing

High Quality Data

Re-use

Collaboration & Innovation

Discovery & Verification
Digital scholarship is evolving as new technologies allow researchers to engage with content
- Both traditional physical and increasingly digital
- Born digital or digitised

To expose and explain previously unseen patterns to create new knowledge

All about how students’ and researchers’ interactions with digital information resources influence the ways they think, interpret and communicate ideas

Digital humanities allow closer connections between research and teaching, enabling students
- To engage with original materials
- To adapt and repurpose content for new creative works
- To build new skill sets

IDL becomes the new foundation for both learning and research activities
Centre for Digital Scholarship

- **Infrastructure – Tools – Training**
- Provides a space for academics and students, across all disciplines, enrolment status and employment roles, with resources, services and support for digital scholarship activities
- Supporting the shift from ‘independent’ research to ‘collaborative and participative’ research
- Opportunities to facilitate and establish networks and communities of users
  - To bring together experienced users and potential new players
  - To showcase and to learn in a collaborative or mentoring way
- Provides access to hardware and software tools:
  - 3D printing and 3D photogrammetry
  - Geographic Information Systems
  - Web scraping, text mining and textual analysis
  - Data analysis, interpretation and visualisation
- **Staffed by casual staff who are (usually) HRD students**
  - Enhancing the student experience and increasing employability
- **Liaison librarians building cohesion between the Schools and CDS**
Text analysis

Text analysis software can be used to access and interpret text and produce quantitative data that can be analysed.

Data analysis

Data analysis software can help to examine data to discover useful information. Use data analysis tools to collect, evaluate and present data and draw conclusions.

Data visualisation

Data visualisation software is used to produce visual representations of data to convey meaning.

Geographical information systems (GIS)

Geographic information systems (GIS) software is used to capture, analyse and present spatial or geographical data.

Media creation & editing

Media creation and editing software is used to produce and edit video, audio and graphics.

3D modelling software

3D modelling software can be used to create and modify 3D models.
A connected future through IDL

➢ A university-wide approach is needed
  – Aligns the Library with the institution’s strategic directions
  – Provides opportunities to build and demonstrate excellence and impact across learning, research and digital scholarship

➢ The IDL Strategic Framework is
  – A conversation starter to facilitate:
    • A common language
    • A shared philosophy
  – A document to help the Library:
    • Demonstrate the roles it plays in supporting learning and research
    • Align itself with the ICT agenda across the institution
    • Articulate its investments in online systems and e-content
    • Open up opportunities for new ideas, new collaborations
    • Encourage the library staff to develop new skills and understandings


www.nmc.org/publication/digital-literacy-an-nmc-horizon-project-strategic-brief

http://www.ala.org/acrl/standards/informationliteracycompetency

www.ala.org/acrl/standards/ilframework

www.caul.edu.au/caul-programs/information-literacy/publications

www.jisc.ac.uk/guides/developing-digital-literacies


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