Information Literacy: research into practice

Christine Bruce, PhD
Goteborg University, 2001
Our agenda

- What are the strengths of a relational model for information literacy?
- What do the different ways of experiencing information literacy look like?
- How can we design curriculum based on the relational model?
- Fostering strategic partnerships
- Future Research Opportunities
- Conclusion
What are the strengths of a relational model for IL?
Why a relational model of IL?

- What is the relational model of information literacy?
  - A picture or map of the different ways in which information literacy is experienced
  - Derived from an empirical investigation using the phenomenographic approach
  - Participants came from business, engineering, education, included academics, librarians, learning advisers and educational developers.
Why a relational model of IL?

- Grounded in student focused learning theory
- Based on people’s real life experiences with information
From a relational perspective:

Learning is coming to experience phenomenon in a range of different ways

• Learning to be information literate is coming to experience IL in a range of ways

• Being information literate about having access to different ways of experiencing information use
In a relational model of IL

- Competence is interpreted as experiencing information literacy in different ways, rather than as mastering information skills or knowledge that have a short shelf life in our rapidly changing information and IT environment.
Why a relational model of IL?

- Reveals the close relationship between information literacy and learning
- Reveals the differing status of information technology in the experiences
Wisdom
Insight
Understanding
Knowledge
Information
Data
adapted from Denis Ralph (1999)
What do different ways of experiencing information literacy look like?

Introducing the Seven Faces of Information Literacy
Features of Information Literacy

- varying emphases on technology
- emphasis on the capacity to engage in broad professional responsibilities, rather than specific skills
- social collaboration or interdependence between colleagues, rather than emphasis on individual capability
- need for partnership of information intermediaries
- emphasis on intellectual manipulation of information rather than technical skill with IT
- Personal heuristics rather than prescribed patterns
The Seven Faces of Information Literacy

Information Literacy = the sum of the different ways it is experienced
Information Literacy Education = helping learners change/broaden their repertoire of experiences

Each “face” comprises
- information use
- information technology
- unique element

Focal element = central circle
Marginal element = outer circle
First Face: The IT Experience

- IT used for information awareness
- IT helps users stay informed/communicate
- A social experience – not individual
- Dependent on expertise within a group
Second Face: The Info-Sources Experience

- bibliographic
- human
- organisational
- assistance of intermediaries emphasised
- Personal skills also valued
Third Face: The Info-Process Experience

- linked to problem-solving, decision-making
- requires personal heuristics
- a ‘creative art’
Fourth Face: The Info-Control Experience

- recognising relevant information
- managing that information
- making connections between information, projects, people
- interconnectedness between information and parts of projects
Fifth Face: The Knowledge Construction Experience

- emphasis on learning
- Developing a personal perspective with knowledge gained
- dependent on critical thinking
Sixth Face : The Knowledge Extension
Experience

- personal knowledge + experience + creative insight/intuition
- mysterious experience
- develops new knowledge/approaches to tasks/novel solutions
Seventh Face: The Wisdom Experience

- personal quality
- values and ethics combined with knowledge
- information used for the benefit of others

Information Technology

Information Use (values)
Summary

• When we look at IL from a relational perspective

• IL comes to be about seven different ways of seeing/experiencing information practice

• Library skills in a range of settings offer one possible foundation for developing IL

• Librarians and academics need to extend educational focus into all seven areas.
As professional educators we have opportunities to:

- diagnose the existing range of learners’ information literacy experiences,
- deepen those experiences with which they are familiar, and
- usher them into previously unfamiliar experiences
<table>
<thead>
<tr>
<th>Seven Faces of IL</th>
<th>Workplace Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information technology experience</td>
<td>environmental scanning</td>
</tr>
<tr>
<td>Information sources experience</td>
<td>becoming familiar with and using info resources and services</td>
</tr>
<tr>
<td>Information process experience</td>
<td>info processing; packaging for internal/external consumption</td>
</tr>
<tr>
<td>Information control experience</td>
<td>information management</td>
</tr>
<tr>
<td>Knowledge construction experience</td>
<td>corporate memory</td>
</tr>
<tr>
<td>Knowledge extension experience</td>
<td>research and development</td>
</tr>
<tr>
<td>Wisdom experience</td>
<td>professional ethics</td>
</tr>
</tbody>
</table>
Seven Faces in the Community?

- IT for a purpose - buying, communicating
- sourcing information - individually, together
- problem solving
- getting organised
- getting informed
- innovating
- applying wisdom
Creative thinking space...

Questions....
Reflections....
How can we design curriculum based on the relational model?

Library curriculum....

Academic curricula....
The premise

• Powerful ways of acting come from powerful ways of seeing.......................... (Marton and Booth 1997, Bowden and Marton 1999)

• .......for information literacy education this mean building relevant experiences and reflection on those experiences into curriculum
Learning outcomes

• Students will
  – Conceive of information literacy in a variety of ways
  – Use info effectively in a range of contexts
  – Discern different ways of thinking about effective information use which apply to new problem
  – Conceive information as subjective and transformational in character
  – Appreciate the socially distributed nature of IL
Learning outcomes

• Students will
  – Use ITC’s for information retrieval and communication
  – Find information independently or via an intermediary
  – Use information processes
  – Control information
  – Build a knowledge base in new interest areas
  – Work with knowledge in order to gain new insights
  – Use information wisely for the benefit of others
Elements of an IL program

- Resources to facilitate learning of specific skills,
- Curricula that provides opportunities to learn specific skills, early in a course or at point of need, (from self-paced packages, peers, lecturers, librarians)
- Curricula that requires engagement in learning activities that require ongoing interaction with the information environment, and
- Curricula that provides opportunities for reflection and documentation of learning about effective information practices.
What can librarians and academics do?

As professional educators we have opportunities to:

• diagnose the existing range of learners’ information literacy experiences,
• deepen those experiences with which they are familiar, and
• usher them into previously unfamiliar experiences
• Help students become aware of their expanding repertoire of conceptions.
What can librarians and academics do?

- help learners access/experience for themselves different facets of information literacy
- help learners reflect on their use of information
- emphasise the social/interdependent nature of information literacy
- match curricula against identified variation to establish representation and identify gaps
• place emphasis on information literacy as forms of information practice that can be encouraged or discouraged by particular learning activities

• Bruce, C and Candy, P (2000) Information Literacy Around the World,
Towards Action: a suggested thought process

• What general learning needs will students have in future? (eg to keep up to date with new developments)

• What real world activities will they need to engage in? (eg monitoring their learning needs, scanning developments in field of interest)

• What could students do in our courses to prepare them? (eg develop & implement a current awareness strategy…)

What about other library services?

- Should we redesign library services according to users interesting information habits, instead of trying to fit them to our services?
- How can we take peoples real life information experiences more seriously? Designing services and learning to suit them rather then expecting them to fit traditional moulds?
Fostering Strategic Partnership

Dimensions from the Australian experience
–from ‘Faculty-Librarian partnerships in Australian Higher Education’ (2001) RSR
Policy

• Policy partnerships
  – Policy documents include information literacy frameworks and plans, lists of graduate attributes and teaching and learning plans
  – Librarians work with faculty to bring information needs of students into focus in construction of such policy
  – University of Ballarat IL policy is designed to converge with Boyer’s Four scholarships
Research and Scholarship

- Research and scholarship partnerships
  - Instances of faculty and librarians working together on elements of information literacy research
  - Or engaging in scholarship associated with design of discipline-based learning experiences
  - Evaluation is a popular focus
  - Teaching and learning grants create collaborative opportunities and contexts
Higher Degree Supervision

• Higher degree supervision partnerships
  – academics and librarians share responsibility for helping students through the phases of higher degree research
  – Librarians act as co-supervisors
  – Benefits include more timely completion, higher quality research
  – Coursework opportunities for research students
Curriculum partnerships

- Interventions placed variously on a spectrum between special subject and curriculum redesign to foster more sophisticated information practices
- Librarians involved in product development, including web-sites, IL modules
- Griffith Graduate Project – self-managed portfolios
- Australian Technological Network – sharing ideas
• Academic Development Partnerships
  – Bring information needs of students to the attention of faculty
  – Promote the value of information literacy education
  – Include collaboration on learning initiatives or faculty development programs
Creative Thinking Space

Questions…
Reflections…
Ideas….
Future Research
International Collaborative Research

• Investigating experiences of information literacy in different disciplines
• Investigating IL in academic and professional contexts
• Vision - An international network of research projects, each funded in the home country
• Contact Christine Bruce for further information c.bruce@qut.edu.au
Discipline based research largely focuses on information seeking and gathering. IL clearly goes beyond the information seeking dimension. The intention is to explore information practices more widely in specific disciplines, essentially duplicating the Seven Faces research.
International Collaborative Research

• What do we expect to find?
• What might different experiences of information literacy look like in different disciplines?
• Would we expect different conceptions to appear?
• How would the conceptions relate to the Seven Faces framework?
• Perhaps we might find similar categories,
• But find that the arrangement of elements within the categories is more detailed, discipline-specific? –
• We would thus learn more about the internal structure of the categories – how people are aware of their information world/practice within the categories
Perhaps we might find that different disciplines focus on different subsets of the conceptions,

Essentially one or more categories may be more critical, or focal than the others in a discipline; with remaining categories being more in the background of awareness

This would help us understand the central information practices in a discipline, and allow us to plan services and education to support and extend those practices.
In closing - Imagine Tomorrow

- Futurists share predictions that the technology of knowledge will rule.
- Workers who welcome change and participate in lifelong learning activities will fill the jobs of the future
- Employers will seek employees who take the initiative, use good judgement, and are creative problem solvers and decision-makers
  - Yost and Sentner (2000) Journal of Teacher Education 51(1) EBSCO HOST.
Imagine the Classroom of Tomorrow

- Through access and use of technology (C1) students will be able to learn on demand (C3) and access hundreds of pieces of information on any subject of interest (C2). Students who achieve in this environment will have developed habits of mind (C4) that will enable them to be critical thinkers (C5) who explore possibilities (C6). They will need integrity and ethical standards to guide their choices (C7).

- Yost and Sentner (2000) Journal of Teacher Education 51(1) EBSCO HOST. , relation to conceptions developed by Leesa Philip