



The Australian Library Journal

Journal of the Australian Library and Information Association

***Special issue on Community and
Workplace Information Literacy***

**Workplace information literacy for
administrative staff in higher education
Mark Hepworth and Marian Smith**

**Understanding and practice of information
literacy in Australian government libraries
Jennifer Kirton, Lyn Barham and Sean Brady**

**Systems thinking: an approach for
advancing workplace information literacy
Mary M. Somerville and Zaana Howard**

**Information literacy and the public library: we've
talked the talk, but are we walking the walk?
Jane Harding**

**ESL Library Skills: an information literacy program
for adults with low levels of English literacy
Katrina Macdonald**

Guest editor: Dr Helen Partridge

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The Australian Library Journal

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Guest Editorial

Community and workplace information literacy

Whilst information literacy (IL) has rapidly become an object of research interest in education and library and information science (LIS) disciplines, most of this research has been confined to educational settings (Bruce, 1997). Little research has been conducted exploring IL within the context of community or workplace settings. Todd (1999) commented that: 'information makes a difference to the everyday lives of people and that having the knowledge and skills to connect with and interact with this information can enable people to solve real world problems and address life concerns' (p. 30). However, he also observed that 'information literacy literature to date gives little attention to this' (p. 30). The relative absence of research and discourse about IL within workplace or community contexts is perhaps not unexpected given that IL as a scholarly domain is 'still in its infancy' (Bruce, 2000, p. 91). Information literacy research is just over twenty years old and only now entering what Bruce calls the 'evolving phase' in which the 'research territory is ... beginning to emerge'. Spink and Cole (2001) observe that the everyday life context represents a relatively new research focus within the LIS research community and that it offers an important and challenging area of scholarly enquiry. This special issue of *ALJ* provides a forum to identify, share and develop the issues relevant to information literacy within workplace and community settings.

In this issue

Five papers are included: three discuss information literacy within a workplace context, and two explore the concept as it is applied to everyday life.

Hepworth and Smith provide an overview of a recent project carried out by Leeds University and Loughborough University in the UK. The project studied the information literacy of non academic staff from the Finance and Research Departments employed at the two institutions. The information practices of the staff were compared with three current IL models commonly used within academic settings: ACRL (2000), SCONUL (1999) and iSkill (Joy and Taylor, 2005). Hepworth and Smith conclude that in the work environment IL takes a very different form from IL in the academic context.

The hierarchical and collaborative nature of the workplace results in people experiencing IL in a more fragmented way than in an education setting. The significant influence of time and social networking skills on IL in the workplace is noted. The authors suggest that if librarians and information professionals wish to support IL in the work context they need to take on board a wider conception of the information landscape and information practices.

The way in which IL is understood by Australian government librarians is explored by Kirton, Barham and Brady. Librarians' understanding of IL will inevitably influence the way in which they develop and implement IL services and strategies within the workplaces they serve. Twenty-three librarians completed a survey that explored the application of IL within government libraries. The survey was in part based upon the *Australian and New Zealand Information Literacy Framework* (Bundy, 2004) that is frequently used within higher educational contexts. The survey results revealed that many government librarians either do not include 'critical thinking' skills in their definition of information literacy, or if they do include it, they do not believe that they should have the responsibility for teaching it. Critical thinking is a core part of the ANZIL IL framework. Kirton, Barham and Barton suggest that this notable difference in how IL is viewed and understood by government librarians most likely reflects the difference in client base, students compared with adult professionals.

The final article exploring IL within the work context is provided by Somerville and Howard. Their paper focuses on the LIS workplace and the development of IL competencies among professional librarians employed at the California Polytechnic State University (Cal Poly). They discuss a project conducted from 2003 to 2006 that involved librarians and students in the process of co-designing the university library of the future. Somerville and Howard argue that the project helped to advance individual and team information literacy capabilities. They advocate that contemporary library and information professionals enjoy rich opportunities to cultivate requisite workplace information literacy knowledge, skills, and abilities and that these opportunities should not be missed.

Harding provides the first of two articles to explore information literacy within the context of people's everyday lives. She reports on a literature review of current activities by public libraries in developing and supporting information literacy within the communities they serve. The review revealed that public libraries are 'not just talking the talk but are also walking the walk' with respect to IL. There is an extensive array of IL programs on offer in public libraries worldwide. However these programs have been developed in light of a number of factors limiting the efforts of public libraries such as poor resourcing and no

framework or guidelines on how public libraries should go about IL instruction or service development. Harding observes that public libraries have found a balance between professional ideals, public demand, and available resources. They are capitalising on their strengths and opportunities and working within existing limitations. She notes that the challenge for public libraries now is to determine whether current programs are sufficient to meet community needs for IL, and if not, to find ways to remove the barriers inhibiting IL development.

Macdonald introduces the ESL Information Literacy Project (ESLILP) at the University of Ballarat. Using the Certificate in Spoken and Written English offered via the Department of Humanities and Further Education, the ESLILP was established as a library orientation course for adult, non-academic students who speak English as a Second Language (ESL). The project was based on the proposition that the ability to access and use information is a critical part of resettlement in a new country. Macdonald observes that developing programs to help immigrants and refugees with low levels of English literacy become independent and effective library users can be very difficult when the library or the librarians work in isolation. Macdonald offers a framework for developing IL education programs for people with very low levels of literacy and invites others to become involved. The framework may be of particular use to librarians working in this area with limited backgrounds in ESL teaching or practical resources. Other libraries and librarians interested in developing similar projects are invited to draw upon the framework in their work.

ALIA and information literacy

This special issue of *The Australian Library Journal* is presented by ALIA Pathways (formerly the ALIA Information Literacy Forum). ALIA Pathways fosters a common understanding of, and advocates for, information literacy within ALIA and the general community. The group promotes professional development opportunities and open critical discourse in information literacy for library and information services personnel. Further information may be found at www.alia.org.au/groups/infolit/

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A note to authors from the Editor

The Australian Library Journal is listed in *Ulrich's Periodicals Directory* (www.ulrichsweb.com/ulrichsweb/) as a refereed journal. For the Department of Education, Employment and Workplace Relations, peer review is important for journal articles and conference publications counted in the annual Research Publications Return. As evidence of peer review DEEWR accepts listing in one of the Thomson Reuters' *Web of Science* indexes, or listing in *Ulrich's*.

Although *ALJ* is listed in *Ulrich's* as a refereed journal, it is not yet listed by Thomson Reuters. Back in November last year ALIA began the process of submitting five subsequently published issues for evaluation by a Regional Content Editor at Thomson Reuters. With November 2007 and February and May 2008 issues currently being assessed in the US, and copy already being edited for the November issue, we expect to have an outcome later this year. In the meantime, our contributors from academe can be confident their efforts already meet the DEEWR requirements for countable points. (Thanks to Linda Butler from ANU for clarifying the situation.)

And in other news, ALIA's Research and Publishing Standing Committee is completing contract discussions with the US Department of Education, Education Resources Information Center – ERIC (<http://www.eric.ed.gov/>), 'The world's largest digital library of education literature', that will ensure *ALJ* is regularly and comprehensively abstracted and indexed in the open access ERIC database.

Ian McCallum

July 2008

Workplace information literacy for administrative staff in higher education

Mark Hepworth and Marian Smith

A joint project carried out by Leeds University and Loughborough University, funded by JISC, studied the information literacy of non academic staff in higher education. The in-depth, qualitative study deployed an information audit, interviews and focus groups with eleven staff in the Finance and Research Departments at Loughborough University. The information literacy needs of staff were compared with the JISC i-skills model. The hierarchical and collaborative nature of the workplace meant that people's experience of information literacy in the workplace was more fragmented than in the academic context. Common labels could be used to describe information literacy in the different contexts but more emphasis was placed on data, internal information and information from other people in the workplace. Time had an impact on information literacy. Social networking skills were recognised as key information literacy skills. The need for staff to know how to organise information and develop information policies was identified.

Manuscript received April 2008

This is a refereed article

Introduction

This paper discusses the findings of a joint project carried out by the Universities of Leeds and Loughborough and funded by the Joint Information Systems Committee (JISC). It looks in detail at the information literacy of two groups of non academic staff working in higher education.

The purpose of the study was to:

- identify information intensive situations experienced in the workplace;
- explore these situations and to review staff's knowledge and skills associated with managing information;
- compare this knowledge and skills set against the information literacy headings presented in the JISC i-skills model; and
- make recommendations for staff development in terms of information literacy and information management.

This paper focuses on the first three objectives.¹

Literature Review

A number of definitions for information literacy exist. The Chartered Institute for Library and Information Professionals (CILIP) has defined information literacy as:

Knowing when and why you need information, where to find it and how to evaluate, use and communicate it in an ethical manner. (CILIP, 2005)

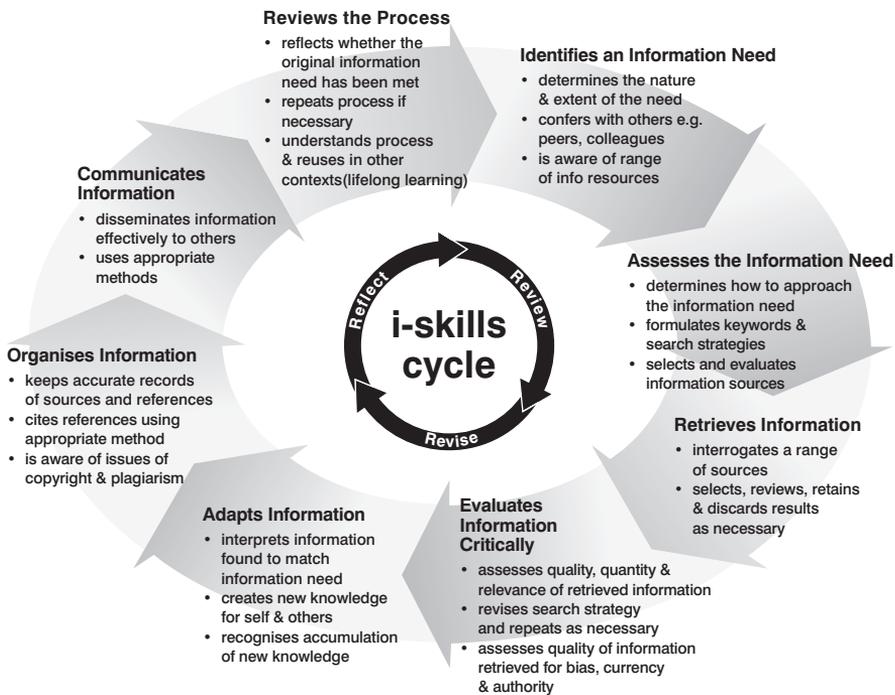
According to Bundy, (2004, p.3) information literacy has generally been defined as:

An understanding and set of abilities enabling individuals to 'recognise when information is needed and have the capacity to locate, evaluate and use effectively the needed information.'

This piece of research took as its starting point the i-skills cycle published by the JISC (Joy & Taylor, 2005) based on the Big Blue model (2002). This model implies that the individual may undertake the entire process and tends to reflect the academic process. The labels attached to the various stages are abstractions, developed by library and information science practitioners and academics that help us to think about information literacy. They are not necessarily how people in general recognise or describe the processes associated with dealing with information.

1 Editors note: the fourth is addressed in an August 2006 JISC report which may be found at: <http://www.jisc.ac.uk/publications/publications/iskillsdevelopment.aspx>

Figure 1. JISC i-skills cycle



As indicated by Rader (2002) the majority of studies investigating information literacy have been conducted in the academic environment. In recent years, however, there has been a growing interest in information literacy in the workplace. A number of these studies have demonstrated the differences in how information literacy is experienced in the workplace and in the academic environment. In her study of auditors, Cheuk (1998a) found that information seeking in the workplace was unpredictable and individualistic in nature which led her to question whether students should be taught to follow a 'right' path to seek and use information. Kirk (2004) found that senior managers' experience of information use was not that commonly suggested by models based on the educational sector. There was a social dimension to information use; it was not an individual activity. This social dimension has been explored by Lloyd (2003, 2005, 2006) who highlights the context specific nature of information literacy. Lloyd (2006) states that in order to become information literate in the workplace it is necessary to not only access and use information from textual sources but also from physical and social sources. O'Sullivan (2002) states that although information literacy is generally not adequately addressed in the workplace there is evidence that business and government recognise its relevance there. This is echoed in literature from the business sector as exemplified in the study by Klausegger et al., (2007):

From a managerial perspective our study highlights the need for professional information management: that is the need to support employees in identifying the right information, handling it efficiently, distinguishing what is relevant from what is not, and evaluating quality. (Klausegger et al., 2007, p.709)

Methodology

The research was exploratory and collected qualitative data using a combination of task analysis and Dervin's micro time line interview (Dervin, 1992). Two groups of staff from the Finance Office (seven staff) and Research Office (four staff) at Loughborough University were selected. They were chosen at three comparable levels of seniority (senior manager e.g. Director/ Deputy Director, middle management e.g. Research Development Officer, Financial Accountant and junior staff e.g. Payroll Officer, Contact Assistant). In total eleven staff were involved in the study. Interviews were conducted by the Loughborough University researcher, at which an audit of information tools in the work environment took place; roles, goals and tasks were discussed and sub-tasks identified and explored using the i-skills headings to probe for i-skills activities (see Appendix 1, p. 230). Questions such as what do you try to find out and where do you go to find out were used, then a specific memorable sub-task was explored using the micro time line interview (see Appendix 2, p. 235) including what led up to the situation (the origin of information needs, what helped/hindered, and how was information used). Interview data was transcribed verbatim. Data was coded using a combination of information literacy models ACRL (2000), SCONUL (1999) and i-skills (Joy & Taylor, 2005). Areas of knowledge and skill that were not covered by the i-skills model and not evident or explicit in other frameworks were identified. Focus group sessions, run by the Leeds University team of investigators, were then held with both groups. Themes arising from the interview data were explored in the focus group sessions enabling clarification and comment from the respondents and also the opportunity to discuss personnel development implications. Data from the focus groups was transcribed and implications for professional development identified.

Findings

The findings outlined here focus on the information literacy needs of the respondents and draw primarily on the data from the interviews. The professional development issues are not explored. Further details of these can be found in the final JISC Report (Hepworth et al. 2006). The purpose of this analysis was to help determine the information literacy needs of the respondents

but also to see whether conceptions of information literacy as indicated by the i-skills model were shared by the respondents. Furthermore, areas that were not evident or explicit in the i-skills model or for that matter in other information literacy models were highlighted.

All participants reported that i-skills was a new term. In the interviews several respondents commented that this was the first time they had had the opportunity to think and talk about these tasks and processes. Even when the findings were presented at the focus group sessions people found it hard to relate to the abstract i-skills descriptions of information behaviour. When asked about their i-skills within the focus group setting, there was a need to review what was meant by the term, and many found it difficult to grasp the concept as a whole:

'We keep interpreting that as IT skills.'

'As soon as I see it, I just think computers.'

The initial stages of the i-skills cycle, *'identifies an information need'*, tended not to relate closely to the non-academic environment. This is partly because tasks were given to staff by their managers, either by phone, e-mail or face-to-face, and were likely to be relatively well defined. There was therefore little identification or definition of the topic or information need. However, definition of the topic did take place primarily through listening, questioning and possibly through discussion with colleagues. For example:

'When an academic requires assistance with a research application they will make initial contact with me either by email or phone. I ask them for an outline of who they are applying to i.e. what funding bodies and under what scheme.'

The i-skills label *'retrieves information'* was applicable in the non academic context. However, the content of this process was very different from that implied by the Library and Information Science (LIS) models of i-skills and information literacy. The LIS profession tends to focus on the use of secondary sources of information materials traditionally given access to by the library. In the workplace very little emphasis was given to secondary sources of information and generally members of staff were dealing with primary data (names, numbers, etc.) and not secondary information. This included gathering internal data concerning, for example, the Research Assessment Exercise or salary structures:

'All the information I need comes from the financial system. Within that there are lots of different areas each bit comes from a specific place so I know where those places are. For instance one area is research groups if I want to know what they have been spending I will run off a report from there.'

There were however cases where such internal data was compared with external data of a similar nature, acting as benchmarks. Nevertheless, data rather than information was key, and knowledge of internal data and information storage systems was crucial, rather than knowledge of external secondary sources or indexes to such information. However, tools such as search engines were used to identify external resources and respondents stated that they found it relatively easy to use these tools.

With regard to *'evaluates information critically'*, again, rather than relating to content such as respected journal or author etc. the source of data tends to be internal and hence the authority is known and classical evaluative criteria relating to secondary sources do not apply. During the work process, however, validation took place, as well as clarification, generally through colleagues (i.e. other people were consulted to see whether something made sense or not):

'I do this job on my own [checking the monthly payroll] although my colleague does share the checking so we do discuss the work.'

Validation of information, particularly in the finance area, also tended to be based on professional training i.e. subject knowledge such as accounting, rather than criteria associated with the evaluation of published sources of information:

'I then have to analyse the information received, highlight any problems and ask appropriate questions. All this is a matter of professional judgement.'

The process of *'adapts information'* or using information is again rather different to that in the i-skills cycle where pulling together information is expected to be from different published sources. However, the act of pulling information together did take place; for example, information could be obtained from the websites of different organisations and then synthesised but generally not from published secondary sources as in the academic context. Furthermore, junior staff tended to be given data and very specific instructions of what to do with it, with little scope for choosing how to adapt the information or data. Nevertheless, thinking skills associated with using information were perceived to be important. These included analysing information and data, identifying gaps, collating material, and manipulating data and information in an appropriate way:

'You can't just download information and feed it into a report it all needs analysing. You need to be able to pick out the relevant information and analyse it and then feed it back into the reports.'

'To date I've done a précis on Whistle blowing. I've looked at the current university policy document and annotated it where I think there are gaps and now I am going through other universities' documents and I will come up with a draft policy.'

The ability to 'adapt information' is therefore important. However, a wider conception of the nature of that information is required to include primarily internal and unpublished information in the workplace.

'Organises information' is a label that could be used to describe an activity in the workplace. However, the i-skills phrase 'keeps accurate records of sources and references' is not appropriate relating, as it does, to the academic context. Nevertheless organising information was a significant issue and an area of concern to staff. In fact respondents were concerned that they did not have any obvious work based method or structure for organising the information, data or knowledge associated with their work. How to manage e-mails was a commonly cited problem. One member of staff had developed their own strategy. But even they recognised it as problematic:

'The number of folders [email] reflects the breadth of what I have to deal with. I have to have an overview of the Office so I have certain strategic high level folders e.g. funding will be one folder with perhaps fifty sub folders... there are problems with storage.'

No systematic approach was taken to manage the desktop, files and folders etc. Nor was there any strategy for managing external information resources, such as information about organisations and their websites that could be important sources of information or data. Little systematic management of or access to published sources such as professional magazines was evident.

'Communicates information' again implies some form of report, thesis etc. as in the study/academic context. In the workplace it is evident that data or information intensive tasks do not necessarily result in a 'report'. The output could be in the form of a spreadsheet, for example, or a PowerPoint presentation:

'I do a lot of power-point presentations for departments and Research Groups and Senior Management training courses.'

Nevertheless appropriate methods had to be used, and thought was given to the purpose of the data or information and who the intended 'consumer' was:

'Once I had found all the information I needed it ended up getting meticulously plotted in many spreadsheets and it then becomes a question of filtering it for the audience because clearly it is easy as an accountant to produce reams of paper with numbers on that the average person will look at and go aagh! So it becomes an issue of making it user friendly and interesting and appropriate for the audience.'

The production of larger scale reports where a wider range of data and information were pulled together tended to be the function of senior rather than junior staff.

'Reviews the process' was considered useful but a luxury. It was something the respondents felt they should do but didn't have the time:

'Reviewing work is good practice but pressure of time and volume of work makes this difficult.'

Generally reviewing the process tended to be a form of checking whether the task had been completed successfully, and this involved talking to colleagues. It was not a reflective process that looked at the overall task and how they had gone about it but more to do with whether their work was correct, accurate and related to the expectations of their managers.

As indicated above, similar labels can be used to categorise people's activities in the workplace, however, they tend to be applied in a different way to that in the academic context. In particular '*organises information*' has a far broader remit involving the organisation of data, information and knowledge that is part of the working environment. This encompasses the use of ICT to help manage this environment.

One of the few tasks that did involve the use of secondary sources was current awareness. Staff, particularly senior staff, did feel a need to keep abreast of development in the academic sector as a whole, and professional developments and changes that may have an impact on their work. Participants used professional magazines, such as the *Journal of Research Administration*, *Accountancy Age*; organisations that produced documentation which might affect practice or create opportunities, such as Higher Education and Research Opportunities; discussion lists, such as British Universities Finance Directors Group or ARMA JISCmail. Certain tasks also required people to refer to institutional policies and guidelines internal to the organisation such as Committee Minutes etc. Mapping this data and information landscape was therefore a necessity. Senior management in both the Finance Office and the Research Office, (although it was more widespread in the latter), were particularly conscious of this role.

Skills not explicit in the i-skills model

In mapping the data against information literacy models and in particular the JISC i-skills model, comments were identified which did not easily fit into the headings offered by the model, but which nonetheless had a significant bearing on staff management of information. Some commentators may argue that these are implicit in the i-skills model and other information literacy frameworks. However, we would argue that, even if this was the case, they need to be made more explicit and their implications taken on board when discussing information literacy in the workplace.

These themes are:

- Time management and information overload
- Social networking
- Team working.

The significance of these themes is echoed in the management literature (Margol & Kleiner, 1989, Terziovski, 2003, Claessens et al. 2007)

Time management and information overload

Repeated references were made to time management in interviews and focus groups. Time management had an impact on information behaviour in that the extent to which any i-skills type task was conducted was determined by the amount of time the person felt they had available. Hence people needed to constantly make judgements about how thorough their information behaviour could be depending on the time available. Pressure of time determined the length of searches carried out. Lack of time presented challenges when it came to organising information:

'One frustration of my role is not always being able to do developmental things because the day to day work is of a huge volume relative to the number of staff in the office...it takes you away from being able to pursue certain things in a more proactive way.'

'Having the ability to receive information, file it and archive it with easy personal access to the archives would help me as would having the time to carry out good housekeeping routines e.g. weeding my electronic records. Time can be a barrier.'

All participants had their own systems for managing information in hardcopy and electronically, though difficulties arose with the volume of information that required organising. Electronic storage of information and the ability to archive

e-mails was an issue. As indicated above some participants found maintaining the organisation of information difficult. The primary reason for this was lack of time; a secondary reason was an inability to determine what should be kept and what should be discarded. The amount of information received which needed to be read and absorbed presented challenges:

'Keeping on top of all the information and keeping up to date with what is going on in the sector is vital. Information overload is one of the biggest problems. You need to be careful not to become blinded by too many sources of information. You need to be clearly focussed on what is most relevant to your needs.'

Keeping abreast of all new developments in their sectors was an issue for many participants, especially those employed at a senior level. This was done by reading professional literature, magazines and newspapers, accessing information from the Web and in some cases using discussion lists and alerting services. There was, however, a level of anxiety in some cases that this was not being fully addressed. All but one participant demonstrated the need to keep up to date with new developments in their sectors:

'I read Payroll Pensions Review for specific information e.g. details of pension changes from April 1st.'

'I usually start the day with a list of tasks, prioritised. I routinely check a whole variety of info sources on a weekly basis as part of my work.'

Social networking

Social networking, both inside the institution and outside of it, was cited as a very important means of gathering information:

'Knowing where to find the information was crucial and networking was key to this.'

In many cases it was seen as the only means of obtaining particular information. People were the main source of guidance in terms of determining what a task should entail. Networking was also required to help identify and gather data and information. It was therefore necessary to build a mental map of people who could have an impact on any stage in the completion of work. This involved both a knowledge of who and what was available, but also the interpersonal skills to build and make use of a network of people. A need to be knowledgeable of what data and information systems were in place in the workplace and how to use them was fundamental. However, little formal training seemed to take place covering these systems and generally problems were dealt with on an ad hoc basis by asking colleagues for help:

'I use people a lot to find out information. More face to face contact would help...the amount you are likely to get out of someone is dependent on the nature of the relationship.'

This was seen as vital by the most senior members of staff:

'Networking with people there is far more productive than anything that comes out of meetings...I found myself sitting on a table with eleven Vice Chancellors for most of the day. It might not kick in for five or six months but there are now eleven other people I can pick the phone up to speak to.'

'Networking is a key part of my job, it is very useful. I make contacts at conferences and seminars I attend, with people I have dealt with e.g. when negotiating contracts that are collaborative with organisations, people I have worked with in the past. It is useful to have people you can ring up and find out what is going on at other institutions and how they are tackling problems, to compare notes with. It keeps you abreast of all the new developments and what is going on and helps you to focus on what is important for the university strategically and if you need information on a particular thing you always know someone who can point you in the right direction or give you the information or do you a favour that is very important'

All participants demonstrated the need to know staff throughout the university. The more senior the member of staff the greater the need to know members of staff and what their responsibilities were:

'They were asking for Loughborough University to identify world wide centres of excellence in research in this area and I was asked to harness that information and let them know who the relevant people to speak to were. I was able to identify the relevant people to speak to through my knowledge of university staff.'

Although networking skills are not mentioned in the i-skills model the purpose of networking served familiar goals and processes, including interpreting (discussion of the problem), identifying sources (people and places), evaluating (gaining critical comment), communicating and sharing information. The difference is the emphasis on the interpersonal skills required to undertake these activities.

The ability to identify and connect with other people, ask precise and accurate questions in order to elicit the required information were significant and necessary skills. These were recognised particularly amongst the more senior members of staff. Connected to this was the ability to listen carefully picking out the main points, and sifting the relevant information from the irrelevant:

'The meeting was really a fact finding session. I needed to find out why the contract wasn't signed, why three large invoices were outstanding, why they were issued late basically what the issues were and why the company were not paying. It was vital for me to get information from the HOD in order for me to get back to the company and argue our case.'

'I ask them for an outline of who they are applying to i.e. what funding bodies and under what scheme.'

Team working

The issue of teams was not considered when developing the student i-skills model (Big Blue, 2002), because of the emphasis on the skills needed to become an independent 'information literate person.' The workplace application of i-skills is characterised by the spread of skills across teams, where one person may specialise in a particular skill area out of necessity. Tasks are distributed amongst the team, data and information is identified to some extent from the community of practice and problems are solved on an ad hoc basis with the help of others rather than in isolation.

Participants in positions of responsibility for other members of staff referred to the need to be able to guide others in accessing, using, communicating and managing information:

'A lot of this job [monitoring expenditure in all departments] is me managing the process rather than doing it.'

'For instance when finding information there are some things I would expect others to be up to speed on but if I am asking them to look at a whole new area then I will give an indication of what we should be doing or where to look then they would come back to me and I would look at what they had found and consider what I thought we should be getting and make sure we hadn't missed anything.'

The members of staff employed in the more senior roles needed to have an overview of their departments. They needed a mental map of where information was kept and an information profile of their staff in order to know who to access information from quickly. They also needed the ability to guide others in the access, use, communication and management of information.

Different attitudes to the sharing of information were displayed. It was clear that where shared information existed, agreements about how sharing would work had not been made in advance or even considered. For example,

participants mentioned a lack of version control. Some felt they were not able to 'trust' information in a shared space. There was felt to be a lack of policy with regard to managing information.

Differentiation

By organising the data into responses given by participants of the same seniority, it was possible to identify clusters of common themes. The i-skills of the most senior members of staff in both groups were very similar. They kept on top of what was happening in their sectors, read professional literature, searched the Web, evaluated, analysed and synthesised information. They had responsibility for guiding others in accessing, using, communicating and managing information. Networking was an important means of gathering information for this group. At this level there was an emphasis on using information rather than finding it, although there was an implicit skill in knowing who would have the information:

'I see my job as more using information than finding it. I end up co-ordinating the production of things but don't actually do it myself'

'If I want any significant amount of information out of the systems I would ask people who spend their time using the systems'

Participants in roles at the second level of seniority employed a number of similar i-skills. They kept on top of what was happening in their sector, read professional literature, and searched the Web, evaluated, analysed and synthesised information. At this level however, differences appear between the two offices. In the Finance Office, members of staff searched the Web but the range of sites used was far narrower than the range used in the Research Office. Members of staff in the Research Office searched a wider range of websites more frequently. Finance Office staff accessed much of their information from the various finance systems, and less reference was made to evaluating information found. Information on the system was unequivocally accepted:

'I always know where to search for the information. I need information from the in-house finance system to write the report. The Finance system gives details on each of the funds...there is no problem.'

There were noticeable differences in the i-skills of participants employed at the third level of seniority. Participants described their roles as routine and straightforward. There was no reading of professional literature though there was some occasional searching of the Web. Information needs were consistent and

easily defined with no need for planning. Information and data was accessed mainly from existing systems and individuals followed a set routine:

'I am dealing with maternity pay so every month I go to that month on the system...I then look at the amount of maternity pay and calculate a percentage manually...it is routine and there are never any problems unless the system is not working.'

However, information still needed to be analysed, reformatted and put back into the system:

'You can't just download information and feed it into a report it all needs analysing. You need to be able to pick out the relevant information and analyse it and then feed it back into the reports.'

There was less direct communication of information at the lower level. The nature of the roles meant that staff had a good knowledge of people employed throughout the university but little personal contact with them, and no networking was evident. The Research Office again made more references to evaluating information than the Finance Office at this level.

The Finance Office and Research Office

There was a marked difference in the use of current awareness services between the two offices. Two of the more senior members of the Finance Office referred to using a current awareness service whereas three of the four participants in the Research Office did so, reflecting a more outward looking work environment.

In the Finance Office more reference was made to specific information sources that they needed to be familiar with:

'All the information I need comes from the CIS financial system within that there are lots of different areas each bit comes from a specific place so I know where those places are. For instance one area is research groups if I want to know what they have been spending I will run off a report from there.'

The Finance Office made more reference to adapting information. Working as they do with numerical data, there was an awareness of the need to present information in a user friendly format. There was, however, little variety between the offices in the way that information was communicated. The most frequently cited means of communication were reports and e-mails. One reason cited for using e-mail was the necessity of having an audit trail. Managing e-mails was a recognised problem.

Discussion and conclusion

In the work environment i-skills take a very different form from that in the academic context. In the academic context, common conceptions of information literacy describe the process a researcher or student follows in completing an individual task or assignment. This conception of i-skills and information literacy is reflected in the SCONUL (1999) and CILIP (2005) models of information literacy. However, other authors, basing their ideas on empirical studies, such as Kuhlthau (1993); Leckie et al. (1996) and Marchionini (1997) have emphasised the iterative nature of these processes rather than a sequential series of sub-processes. Other researchers of i-skills and information literacy, applying a phenomenographical approach, have derived conceptions of information literacy that are grounded in the perceptions of the individual rather than abstractions of the information profession (Bruce, 1997, Hepworth, 2003). This work implies that i-skills, stemming from the academic context, rather than being a generic phenomena commonly understood by all, may be context specific and people's experience of information literacy may not echo LIS conceptions of information literacy – although similar labels (abstractions) may be used to describe such phenomena (Cheuk 1998b). Work by Lloyd (2006) and Cheuk (1998a) provide further evidence of the situated nature of information literacy.

In the workplace individuals do not, generally, start with a self-contained topic that leads them to identify and assess an information need; retrieve information; evaluate information critically; adapt information; organise information; communicate information and review the process (as defined in the i-skills model). In some cases the singular nature of the role and also lack of time meant that delegation was not possible and the task was more self-contained; in general, however, work was fragmented. It also involved a team of people, and hence delegation, repetition and collaboration. Tasks may start with one person and elements of the task may go to another, come back to the same person, go on to another and so on. Nevertheless, as Cheuk (1998b) pointed out, there are common underlying information processing situations.

Parts of the overall cycle tend to be delegated by senior staff. Individuals may, therefore, be asked to organise and present information; they may be asked to find some information. Hence although elements of the i-skills cycle could be identified, overall, it did not reflect people's experience in the workplace. This was borne out in the focus group sessions where the results of the investigation were presented to staff in the Research Office. Staff commented that to represent their i-skills as a continuous process with one stage leading to another

was too formulaic and an abstraction. In addition it was found that participants were largely unconscious of their information processing activities and found it hard to relate to the abstract i-skills model as a whole but recognised aspects of it. The i-skills model therefore needs to be seen as a high level model or tool for thinking about information literacy rather than a model that literally describes people's experience.

It can be seen that several aspects of information literacy in the workplace are not reflected in the i-skills model. These include the impact of networking and team working where emphasis is placed on mapping the people who may play an important role as sources of information, providing critical evaluation and guidance in terms of the information itself and its presentation. A key skill associated with information management, in the workplace, is therefore the process of effectively networking with other people.

The ability to systematically manage information, for example e-mails, and deal with the problem of information overload was shown to be a key information literacy skill in the workplace. Lastly, and perhaps unsurprisingly, it was found that internal sources of information were more important than external sources of information.

It can be seen that there is a gap between librarians' and LIS academics' conceptions of the skills associated with information literacy that stem from the school and higher education context and the experience of information literacy in the workplace. This is partly because the terminology we use is unfamiliar to people in the workplace but also because of the hierarchical and collaborative nature of work which means that information literacies may be distributed among the work group. If librarians and information professionals wish to support information literacy in the work context they need to take on board a wider conception of the information landscape and information management in the workplace. Plus they need to appreciate the socially embedded nature of information literacy. However, there seems to be no shortage of help and support required that falls under the heading of information literacy. This includes help with the use of internal information systems; the effective use of data; the mapping of external sources such as useful organisational websites; the management of internal and externally generated information such as records, reports and e-mails and helping staff to develop information management policies. In addition staff need support with the interpersonal aspects of information gathering and knowledge management including help with the less directed and more informal information and knowledge sharing between staff in the workplace.

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Appendix 1

Interview questions

Role, goals and tasks that feed into goals (Main Task Sheet)

- What is your role in the department?
- What would you say are the goals of your department?
- What are the main tasks you have to perform that feed into these goals?
- Let us take these and unpick them
- What are the sub tasks you have to perform in order to complete the main task?

Identify the most information intensive subtasks, up to 3 (sub-task sheets)

Now we are going to think about the sub-tasks and how you do them. We will turn to thinking about the information you need in order to accomplish these tasks and achieve your goals.

1) Identifies an information need [What do you try to find out?]

We are going to think about how you identify and assess your information needs in order to complete your task.

- What is the information needed by you in order to accomplish the sub-task (what data, information, knowledge is needed)?
- How do you determine the nature and extent of the information needed?
- What questions/problems are you trying to answer?
- What is the question? Who is the audience?
- Do you formulate a question to be answered? How is this done?
- Through discussion? With whom? Colleagues/peers/others? If you discuss the problem with people how do you know who to talk to? How do you know they have the ability to help determine the information need?
- Through brainstorming? Use of software?
- What would help?
- Are you always clear about what information you need and how much information you need?
- When are you not clear about this? What would help?

2) Assesses information need [Where do you go to find out? How do you know where to go to find out?]

Planning a search

Locating

Knowledge of functionality of system

- Where does the information for the sub-task come from? What sources?
- Why do you choose this way to get the answer?
- How confident are you in your ability to select the best approach to finding the information required?
- Do you plan how to search for information?
- How do you plan? /If not why not? What might help you?
- Do you know how information is organised? How do you know?
- Do you think that you always use appropriate searching techniques?
- Do you know what resources are available for searching to complete this task? Databases, search engines, spreadsheets etc.?
- Are you able to match your question to appropriate search tools (resources that help you to search for information e.g. databases, search engines)?
- How do you value the various resources?
- Are some more suitable for certain audiences e.g. Internet, intranet, financial systems, databases?
- Are there resources you are aware of but do not use? Why? What would help?
- When considering the availability of resources is it necessary to look beyond your local resources to resources at other locations?
- If you need to delegate the task how do you know who to delegate it to? How do you know they have the ability to find the information?
- Do you understand the functionality of the various search tools to guide others if they are completing this step?
- Are you aware of forums/discussion lists etc.?
- Do you have strategies to encourage networking/conferences/events in order to access information?
- Generally do you feel confident that you match your information need to the best resources?
- What information would you like to have to accomplish this task that is currently unavailable? Where would it come from? Name the source

3) Retrieves information

Accessing and retrieving the information

We are now going to consider how the information required for the task is retrieved

- How would you rate your retrieval skills?
 - In the main confident with few difficulties
 - Confident of dealing with everyday enquiries but sometimes uncertain about identifying sources of new information
 - Would benefit from developing extra skills to help me locate information quickly and efficiently
- What resources do you use to complete this task?
- Are you aware of other resources that are available that might help you complete the task? If so why do you choose not to use them? What would help?
- Are there resources that you are aware of that might help you but are not available if so what?
- Are you confident of using various information and communication technologies (databases, Internet, search engines, subject gateways, intranet, financial systems, discussion lists, current awareness alerts) whatever is required to complete this task? Would anything help?
- Do you feel confident in your ability to select among the various technologies the one most appropriate for the task of extracting the needed information (e.g. copy/paste software functions, photocopier, scanner, and audio visual equipment)? Would anything help?
- Once information is located it may need to be downloaded, saved, printed, ordered do you feel confident of carrying out these processes?
- If you have to delegate this task how do you know who to delegate it to? How do you know they have the ability to retrieve the information?

4) Evaluates information critically

Having located and retrieved the information we now turn to what you do with the information

- When you access information you need to complete the task do you always examine it (i.e. do you check quality/quantity/relevance?)
- When you have your information do you evaluate it – examine and compare it thinking about reliability/validity/accuracy/authority/timeliness/ point of view or bias?

- If you do evaluate the information what criteria do you use? Do you evaluate it using your own knowledge base – i.e. it fits in with what is already known?
- Can you think of anything that might help to make this step easier?
- If you have to delegate this task to others do they understand the criteria they have to work to?
- Do you find that there are sometimes gaps in the information found making it necessary to revise your search strategy and look elsewhere for information?
- How confident do you feel in your ability to evaluate information from traditional sources?
- How confident do you feel in your ability to evaluate information from the Web?

5) Adapts information

Still on the subject of what you do with the information

- Do you read and select main ideas? Do you read/extract/paraphrase the information to meet your needs?
- Is there any discussion with others to validate the understanding and interpretation of information (colleagues/peers/experts)?
- If you need to ask others to complete this step how do you know who to ask?
- Do you have a knowledge and understanding of the range of media and formats for displaying information?
- Do you use computer and other technologies to manipulate data (databases, spreadsheets, multimedia and audio and visual equipment)?
- Are there technologies available that you do not use? Why? What would help?
- Are you aware of technologies that would help you to complete this step of your task but are unavailable? Name them
- Are you always able to decide if the original information need has been satisfied or if additional information is required?

6) Organises information

We will now look at how you organise the information you found.

- Is information organised so that it can be found again for future needs?

- Do you keep a record of documents found, sources used and references for future reference?
- Where do you keep them?
- Is information kept in hardcopy and electronically?
- Are search strategies saved?
- How confident do you feel in your ability:
 - to use the various technologies to manage information selected and organised e.g. mark records within a database and save/email/export them, to use spreadsheet software to organise information
 - to keep email files well organised
 - to use information ethically and legally
- How confident are you in your:
 - Understanding of economic, legal and social issues
 - Understanding of copyright and fair use of copyright material
 - Awareness of laws, regulations, institutional policies and etiquette relating to access and use of information resources
 - Understanding of what constitutes plagiarism
- Do you know how to cite references?
- If others organise information do they have the capabilities to do it effectively?

7) Communicates information

We will now consider how the information you have found for this task is disseminated

- In what ways is information communicated effectively to others? Blogs, reports, financial plans, newsletters, discussion lists, RSS, podcasts, journals, websites, subject gateways, VLE, video conferencing
- Are there means of communicating information that you are aware of but do not use? Why not? What would help?
- What technology is used to disseminate information?
- Do you feel confident in your ability (or the ability of members of your team to whom you may delegate the task) to use various ICT applications in creating a product or presentation e.g. use of PowerPoint, multimedia software? Do you use any presentation software?
- Do you know the capabilities of various media to guide others if they are completing this step and to assess the outcome?

8) Reviews the process

Finally...

- Do you look back and consider what was done, how it was done and whether you would do it differently next time
- Was the original information need met?
- Does the process need to be repeated?
- Do you understand the process and will you be able to reuse it in other contexts?
- Have you ever been aware of improvements which could be made?

Appendix 2

Critical incident technique

To help staff recall what happens in practice participants will be asked to concentrate on specific situations they have experienced whilst undertaking tasks. An adapted form of critical incident technique will be used to identify what led up to the situation, how it was resolved, focusing on what information was needed, what helped and how was the information used.

1. Name:

2. Department:

3. Role:

Situations

- 4.** Think back over your time employed in the role of _____.
Without going into too much detail can you think of a time when you had a problem, a difficult decision, a particular situation where you needed information to answer a question? How would you describe that situation? What were the general circumstances leading up to that situation?

Gaps

Turning to your information needs.

- 5.** Thinking about this situation what happened? How much did you know about this situation/problem?

6. What did you need to find out? What questions cropped up? What were the important things you wanted to find out?
7. How important was it to have this information?
8. How did you get the information/where did you go to find out/how did you know where to go [What helped to solve the problem? what was the solution? what ways of help?]
9. Why did you choose this way to get the answer?
10. Did you get complete or partial information? [Did you fully resolve? Did you get a full answer?] Did you find what you wanted? What would have been useful? What kind of information did you or would you have used? [What didn't work so well?]
11. Did you see anything in particular as a barrier/constraint in finding this information? [What stopped you finding out? What was difficult in finding out? What obstacles did you face?] [What did work?]
11. Did you see anything in particular as helping? What?
12. At the end of the day how did you feel about the situation?

Uses

13. How did you use the information? What difference did it make?
Did you expect the information to help? [Did you expect the answer to resolve the problem?] and did it help in ways you expected or in other ways?
14. Did you expect the information would present problems? Were these expected problems or did the information present new problems?
15. How did having the information help? [How did having the information resolve the situation?]
16. How did the information hinder? [How did the information cause problems in any way?]
17. In this situation what would have helped in resolving the situation?

Understanding and practice of information literacy in Australian government libraries

Jennifer Kirton, Lyn Barham
and Sean Brady

Most research on information literacy has emerged from the academic sector and there is a lack of research undertaken in the workplace. To further expand on this area of study, a survey was undertaken to investigate librarians' understanding of information literacy and the application of information literacy in government libraries in Australia. Of particular interest is that many government librarians either do not include 'critical thinking' skills in their definition of information literacy, or if they do include it, they do not believe that they should have the responsibility for teaching it. This most likely reflects the difference in client base, students compared with adult professionals. There was a high response for instruction for online library services (catalogue, journals, databases and library website). This indicates a recognised need for instruction and the development of courses and support materials in these services.

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Introduction

While there has been much written on information literacy, particularly in the academic sector, there has been comparatively little written on information literacy in the workplace and the involvement of special libraries (Kirton & Barham 2005; Lloyd 2003). With this in mind, the authors decided to investigate the understanding of information literacy amongst Australian government librarians, and the actual application of information literacy undertaken in these libraries.

Research into information literacy and the development of definitions, standards and competencies is predominantly undertaken in the education sector (Kirton & Barham 2005). The questions we investigated in this study were how

government librarians, with their experience in the workplace rather than with students, viewed these definitions and standards of information literacy and how relevant or appropriate they believed them to be for government librarians.

We also wanted to gain a snapshot of the information literacy activities occurring in government libraries. In this working environment, there are often low library staff numbers, departments spread over multiple sites, sometimes a significant distance from the library. Further, there is the pervading influence of the Internet and constraints such as budget and staff shortages, which all have an effect on information literacy practices. Kirton and Barham (2005), Lloyd (2004) and others have found that most of the literature has defined information literacy as a process of skill acquisition. In the authors' experience, there is a similar situation in government libraries for the predominant role undertaken by special librarians in information literacy is in teaching or instruction, particularly in the traditional library services and products such as the library catalogue. We focused our questions on these skills.

Literature review

Kirton and Barham (2005) have previously discussed the literature on information literacy in the workplace and have identified it as a relatively meagre topic of discussion. Whilst the discussion on the subject burgeons in the world of the academic library, in the special library of the workplace there is mostly quiet, as is discussion of the *role* of the special librarian in delivering this teaching.

A number of reviews of the literature exist including Johnson (2003), Johnson & Jent (2003; Johnson & Jent 2005, 2007), and Johnson, Jent and Reynolds (2007) who looked at the growth of published information literacy resources from 2001 to 2006 and provided a bibliography, Hughes et al. (2005) who looked at information literacy research in a range of environments in Australia from 2000 to 2005, and Lloyd & Williamson (2008) who looked at information literacy characteristics in different environmental contexts and the implications for research. In all of these literature reviews it is apparent that research into information literacy in the workplace is limited, emerging, and progress is slight.

Significantly what is missing from the literature, and which has prompted us to carry out this study, is a broad view of what is actually being done by workplace librarians to instruct in information literacy, to train people to meet information literacy standards.

There is no measure, no yardstick, no base point to which we can point and say, 'this is where we are now', and from which we can look beyond to where we wish to be. No-one has yet asked:

Are workplace librarians training in information literacy?

Do they understand the information literacy concepts themselves?

Do they think they are important? and

What are the constraints which are limiting them in delivering information literacy?

Methods

In November 2007, a semi-structured survey was developed by the authors with sections based on those used by Dr Heidi Julien (2000) in her paper 'Information Literacy Instruction in Canadian Academic Libraries: Longitudinal Trends and International Comparisons'. With limited time available for both the preparation and delivery of the survey, it was decided that it would be conducted over the telephone by the three authors, and that it would be considered as a pilot study. Using this survey technique, the authors were able to elicit structured data and had the opportunity to record comments made by the respondents. Due to the small number of respondents there was no opportunity for analysis of relationships between the various survey elements.

The government libraries contacted were chosen from a list generated from the Australian Libraries Gateway (2007). With a number of the entries in this list representing branches of central libraries or unstaffed library collections, it was difficult to determine the overall number of government libraries in Australia, and therefore the population number of our survey. However the final results were determined from 23 surveys. Libraries were selected from across all states as well as federal government libraries based in Canberra. After contacting the selected library, we asked to interview the librarian most involved in information literacy. Respondents were assured of confidentiality and anonymity for both themselves and their departments.

The questionnaire included quantitative questions with the opportunity for open-ended responses which have been used to provide explanations of the activities undertaken by particular libraries. Several questions have been removed from the final reported results which were found to elicit a poor response, confused the respondents, or added no value to the final report.

Some questions were divided into 'formal' or 'informal' instruction streams. We defined a 'formal' instruction program as a 'holistic' program that involved the ongoing commitment and development of courses, and/or training products. It could be delivered one-to-one or to a group, but there would exist 'documentation' of the objectives and the procedure. There is also a conscious decision that for each new, updated or existing library product or service, a course or training material will be developed, and training will be given to library clients. We defined informal training as basically ad-hoc or impromptu training in response to immediate client requests, but without handouts and other instructional materials.

However with the closer individual relationships between government librarians and their departmental colleagues in the work place, it is often difficult to clearly define the differences between formal and informal training. Unlike university libraries, government libraries do not have a structured education schedule such as a curriculum for their library clients. There are no classes or defined groups as there are for students – the largest client group in educational sector libraries. Therefore, we considered that a 'formal' instruction program consisting of, for example, handouts, prepared manuals, tutorials and/or PowerPoint presentations can be delivered in a structured situation to individuals as well as groups.

Results and Discussion

Information Literacy

Information literacy has been defined as an understanding and set of abilities enabling individuals to 'recognise when information is needed and have the capacity to locate, evaluate and use effectively the needed information'. From this definition, six standards have been developed in Australia which identify an information literate person. These standards are defined and explained in *Australian and New Zealand Information Literacy Framework: principles, standards and practice* (Bundy 2004) which provides the accepted and recognised framework for information literacy in Australia. The standards of information literacy used in our survey were taken from this publication. The use of these standards differs from Julien's study (2000), where the elements of information literacy were derived from the published literature.

Table 1. Understanding of definition and taking responsibility for teaching information literacy

n = 23

% of respondents

Standards of Information Literacy	Include in definition of Information Literacy	Librarians should take FULL responsibility for teaching this standard	Librarians should take PARTIAL responsibility for teaching this standard	Librarians should take NO responsibility for teaching this standard
	%	%	%	%
Australian and New Zealand Information Literacy Framework: principles, standards and practice (Bundy 2004)				
Standard One Recognizes the need for information and determines the nature and extent of the information needed	96	35	61	4
Standard Two Finds needed information effectively and efficiently	100	65	35	0
Standard Three Critically evaluates information and the information seeking process	91	35	56	9
Standard Four Manages information collected or generated	70	35	61	4
Standard Five Applies prior and new information to construct new concepts or create new understandings	61	17	57	26
Standard Six Uses information with understanding and acknowledges cultural, ethical, economic, legal and social issues surrounding the use of information	91	39	61	0

The respondents' understanding of information literacy is reported in Table 1. Using the recognised six standards of information literacy, respondents were asked 'which of the following (standards) would you include in your definition of information literacy?' No librarians indicated that they had not heard of information literacy or did not understand the basic concept of the term.

The majority of respondents (91% to 100%) agreed that Standards One, Two, Three and Six would be included in their definition of information literacy. That is, an information literate person would:

- recognise the need for information and determine the nature and extent of the information needed (Standard One)
- find needed information effectively and efficiently (Standard Two)
- critically evaluate information and the information seeking process (Standard Three)
- use information with understanding and acknowledge cultural, ethical, economic, legal and social issues surrounding the use of information (Standard Six)

Seventy percent of respondents agreed that Standard Four (manages information collected or generated) would be included, with one librarian commenting that an information illiterate person could store information. An equivalent element in Julien's (2000) study of academic librarians also received a lower response rate compared to other elements.

Sixty one percent of librarians, the lowest response for this question, said that 'applies prior and new information to construct new concepts or create new understandings' (Standard Five) would be included in their definition of information literacy. One librarian stated that this was not information literacy, rather it was the ability of the individual to create new knowledge and concepts from information gathered. It was therefore not a technical skill that could be taught or demonstrated but an inherent ability of the individual to absorb and incorporate information into their cognition.

Another respondent said that a librarian could be considered information literate, in finding and gathering the information together, and selecting the key relevant information, but it is the researcher, with the subject expertise, who incorporates it into new knowledge. If information literacy is viewed as including a set of skills or concepts that can be taught in special libraries (Henczel 2004; Kirk 2004; Lloyd 2003; Lupton 2002; O'Sullivan 2002; Oman 2001) then it is not surprising that this, the most esoteric and most difficult to conceptualise standard, would

not be included in many librarians' definitions of information literacy. There was no similar element asked by Julien (2000).

There were differences in results for Standard Six (understanding the social, ethical and legal use of information), with only 53% to 65% of respondents reported by Julien (2000), compared to 91% in our survey. It is possible that in the intervening years with the increasing availability and use of information on the Internet or in other digital forms, that librarians are more aware of plagiarism, ethical use, copyright and cultural issues such as the use of indigenous information by government departments.

After conducting our survey, we identified a possible misunderstanding of this survey question (Which of the following (standards) would you include in your definition of information literacy?). We were unsure if several respondents identified these standards as being part of the published definition of information literacy, rather than responding as to whether they would include the standards in *their* own definition. The standards, while attempting to be all encompassing, nevertheless originate from the educational sector. The original purpose of this question was to determine if government librarians, based on their knowledge and working experiences, would include these standards in *their* definition of information literacy. In reality, the survey also questioned the librarian's recognition of the accepted standards of information literacy. In future surveys this question would need to be clarified, however we decided to include all responses to this question in our data analysis.

A second survey question was asked to determine the degree of responsibility that government librarians believed they had for providing instruction in each of these standards. There was general agreement that librarians should take at least partial responsibility for all standards except Standard Five (applies prior or new information to construct new knowledge). Where librarians answered that they felt they would be partially responsible for teaching a standard, the 'individual' was always identified as the person who should also be involved in developing their own competence in information literacy. The government librarians also nominated universities (it was unclear if this referred to the librarians or academic staff), information technology and records management departments as being responsible for teaching staff the elements of the information literacy standard.

The largest response (65%) for librarians taking full responsibility in teaching was for Standard Two, 'an information literate person finds needed information effectively and efficiently'. As this standard describes the use of appropriate services such as current awareness services, databases and the techniques

(search skills) to find the information, it falls squarely within the familiar tasks that librarians undertake in providing instruction to their clients. This result is therefore not surprising, although it might be expected to be higher, particularly when compared to the 95.7% and 100% responses reported by Julien (2000) for a similar element.

Generally the respondents felt that government staff should take some degree of responsibility for teaching themselves how to stay up-to-date using appropriate services, how to form search strategies or to select appropriate tools. However several librarians also commented that librarians were the searching specialists, and it was often more time efficient for them to do the searches rather than teaching clients to search for themselves. One librarian reported that the clients expected librarians to undertake literature searches rather than the clients learn how to search.

The role of government departments varies, both between departments, and within them with research, policy development, management, regulation and compliance just a few of the activities undertaken. In the authors' experience, research organisations or units/teams (within a department) have traditionally used librarians to conduct literature searches. It is only in the era of online services and resources that departmental staff have had the opportunity to conduct their own searches. While librarians may lack the specialist subject knowledge of the researcher, they will however have the expertise and time to conduct the literature search. Library clients may have neither the time nor the desire to learn the necessary searching skills.

For Standard One (recognise the need for information), Standard Three (critically evaluate information and information seeking) and Standard Four (manages information collected or generated), the largest percentage of responses was for partial responsibility for instruction and these results compare with the Canadian academic librarians (Julien 2000). However, in our survey there was a stronger response to Standard Four, with government librarians believing that the individual, information technology or records management departments should be more responsible for collecting and storing information, or for instructing government staff on how to collect and store information. This result accords with the findings of Secker (2002), where these skills or characteristics of information literacy would be the responsibility of the learner's colleagues, professional team or the community of practice, as well as their own personal professional development

Twenty six percent of respondents said that librarians should take no responsibility for teaching Standard Five (applies prior or new information to construct new knowledge) which most closely relates to 'critical thinking' in Julien's study (2000). This is a similar result to the Canadian academic librarians, and Julien (2000) commented that despite an emphasis in information literacy literature on critical thinking, many librarians believe that they should not be responsible for teaching this standard to clients. Terrell (2004) has also found that librarians generally feel more comfortable with teaching people how to find information than how to evaluate and use it.

In our survey, many of the librarians commented that individual staff (in their workplaces) have knowledge and expertise in their specific subject area of employment and it would be inappropriate or 'presumptuous' for librarians to be teaching this standard. As only 61% of respondents would have included this standard in their definition of information literacy it is not surprising that many would not perceive a responsibility for teaching it. This result also corresponds with the low figure recorded for the inclusion of Standard Five in their definition of information literacy.

Kirton and Barham (2005) have previously discussed the different relationships that special librarians have with their library clients in a workplace situation. The librarian is a work colleague and possibly subordinate (Secker 2002). However the relationship between librarians in the education sector with their students is hierarchical. Social relationships play an important role in information use in the workplace (Kirk 2004), and in the authors' opinion, the special librarian should be seen by library clients as another colleague to consult with when seeking information, albeit one who possesses a unique set of skills, knowledge and experience.

Standard Six covers the ethical, legal and social use of information, and two librarians who answered 'partial responsibility' suggested that as well as the individual staff member, ethics and moral rights should also be within the purview of senior management to instruct their staff in these issues.

Information Literacy practice

In our survey, all respondents recognised that information literacy was an important service for their library. However, only 39% said they had a written statement of objectives for their training (information literacy) within a library strategic plan or similar document such as an individual's work plan. Of these

librarians, approximately half believed that their training effectively met these stated objectives. There was no follow-up question to determine how these librarians measured the achievement of these objectives.

Fifty-six percent of librarians have developed some form of program for the delivery of information literacy or training (either formal or informal). Of these librarians, only one respondent replied that they had a statement of objectives for their instructional program. However when asked if their library had a **formal** training course for one or more products or services (e.g. handouts, manuals, scheduled dates and/or evaluated), only 30% of all respondents said that they did. This result probably indicates that there was some confusion between our definitions of formal and informal training. Some 26% of respondents had a program for informal instruction such as a commitment to contact staff (particularly new staff) within a certain time period to introduce themselves and demonstrate key library services, but without the dissemination of instructional material.

The average number of staff at the libraries surveyed was 3.1 full time equivalents. No solo librarian reported having a formal training program. The librarians, who were responsible for delivering the formal training program or courses, also had other duties in their position such as cataloguing or management tasks. Of these librarians, nearly half (43%) reported they spent between one and five hours per week on planning and delivering formal training, with the others spending less than one hour per week. Most librarians commented that they would like to have more time to both prepare training material and deliver training sessions either to groups or individuals. Only one librarian indicated their library had a (near) full time librarian devoted to training who spent between 6 to 10 hours on preparing and delivering training.

When reporting on the amount of time spent on informal training (spontaneous, or casual training given when requested), six librarians said that they found it too hard to quantify. For many librarians, helping staff in their workplace is 'second nature' and can vary from a five minute demonstration of the library catalogue to several hours spent on a specific database. For most libraries the amount of time spent by staff on either of these activities is not recorded. In the majority of libraries, all staff are expected to help clients with queries, although mostly librarians are responsible for training.

Training in Library Resources

Librarians were asked which resources they provided training in and the results are presented in Table 2.

Table 2. Library resources for which instruction is provided (% of respondents)

	Formal training courses n = 7	Informal training n = 19
	%	%
Library catalogue	100	95
Online journals and databases	86	84
Use of the library website	71	89
How to search the Internet	71	53
How to find specific subjects on the Internet (eg statistics)	29	47
Print indexes or abstracts	29	26
Other print documents	14	16
Other products or software eg EndNote	43	37
		Thesis collection Australian Bureau of Statistics products; Creating PDFs; Bibliographic management software
Special collections or services or products specific to your library	29	26
	Rare book collection	Staff publications; Photo collection; Microfilm collection; Archives; EIS collection
Other	Course on finding information using a range of online and print sources	General library use; British Library Inside Web

The high response for instruction in online library services (catalogue, journals and databases) compared to print resources is similar to the results from Canadian academic librarians (Julien 2000). These responses for informal training in online products such as the library catalogue, databases, and the library website, indicate that these are areas that librarians may need to develop into more formal training programs. Our results indicate that this need has already been recognised by those librarians who have developed formal training courses on these topics. The high need for instruction in online library services may be a reflection on a general level of difficulty government staff have with library products and services. In the authors' experience government staff are usually older than university students and have less experience in using computers and online services. Further research would need to be conducted to determine if it is because they do not have time or the interest or necessity to learn how to use these products, or if the search interfaces used for catalogues and databases are not sufficiently intuitive for older, less digitally experienced government staff.

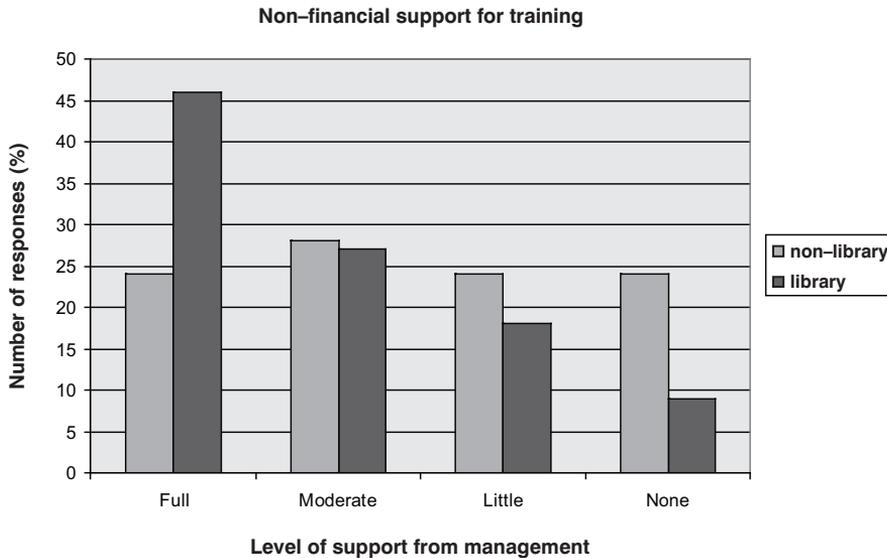
Government libraries are often depositories for unique collections, such as staff publications, or specific collections, such as environmental impact statements (EIS), which can be core resources for staff. The need for training to use these products is reflected under 'special collections', as is the library clients' need for help with 'other products or software' such as EndNote® or Australian Bureau of Statistics products. No librarian reported providing training in the use of Web 2.0 tools such as RSS and blogs, or instruction in the use of information covering topics such as copyright, plagiarism, referencing or creative commons licensing. One librarian described seminars that their department provided in cultural awareness of information use and in copyright but these did not involve the library service.

Resources and constraints in providing training

Only one librarian from the 23 surveyed stated that specific funding was provided in the library budget for training. Funding for training can be used for travel to other sites outside the major cities, purchasing third party training products including WebEx® and TightVNC®, as well as for purchasing software for creating training products such as Captivate®, Adobe Photoshop® or Adobe PDF Writer®. This lack of specific funding compared with Julien (2000) who reported that while dedicated funding had doubled from 1995 to 2000, it was still a low 11.1% for university libraries. In this survey, while all librarians stated that they recognised that information literacy was an important service for their library, it was not yet financially supported by management.

Only 11 librarians reported to a library manager with the remainder reporting to non-library management. Librarians were asked what level of non-financial support (such as administrative support, recognition and/or encouragement) that they received from management (either library or non-library) for their training activities. Figure 1 shows their responses.

Figure 1. Non-financial support for training



Less than half the librarians with library managers reported receiving full (non-financial) support for their training activities, and this result, together with the lack of dedicated funding for training or information literacy activities, raises the question as to how highly library managers value training. Indeed in the authors' opinion, it is discouraging that 27% of library managers offer little or no support for training. For non-library managers, nearly half offered little or no non-financial support. The overall picture is that for government libraries, there is limited support, either financial or non-financial, for information literacy. There are opportunities for increased advocacy by librarians to promote the value of information literacy to their organisations. By raising the importance of information literacy to their department, this will increase the awareness of the issues involved, increase the skill of all staff, as well as increase the profile of the library service to management and provide new opportunities for library staff (Henczel 2004; Kirton & Barham 2005; Oman 2001).

Fourteen librarians responded to the question, 'If you only provide informal training, would you like to provide a more formal/structured course?', with ten answering they would like to develop training course(s). Over half these listed time and money as the two major constraints. Time was a particular issue, with nearly all librarians undertaking other tasks and roles within their libraries. Some librarians were involved in activities outside their library, with one respondent saying they assisted with records management within their department. Library staff shortages, lack of training facilities, distance of sites, and librarian's lack of training experience were also listed as barriers.

Several librarians commented that their departmental staff did not recognise that they needed training. More than one librarian stated that staff were apathetic towards training as Google found everything they needed, and it would be unlikely staff would come to any formal training courses.

Of those librarians who did not want to introduce formal training, one librarian said that informal training was the best method for their library and that librarians did all the information searches for staff. Another librarian said that 'all training requests had to come from library clients and had to be approved by the general manager'. This response is either due to confusion with the question asked, or an unexpected administrative level of constraint on a librarian's role.

Based on our survey and in the authors' experience, with so many special librarians multi-tasking (i.e. undertaking a range of library tasks such as cataloguing, serials, or Web development, as well as instruction), and with a lack of time and staff listed as major constraints, it would be interesting to determine if the creation of products and/or templates for the development of course materials, specifically designed for government or special libraries, would be welcomed by library staff.

Providing training to other sites in the department

Twenty of the librarians surveyed said they had library clients located at sites other than at their own location. Half said they could only provide training at either their own site, a site within their city or a site located within a day trip of their library. Not enough time, staff shortages and not enough money to travel were listed as the major barriers preventing library staff from travelling to other sites. Management not encouraging travel was also listed by two librarians. No librarian answered that their clients did not ask for help, or that they had never thought of it. (It is to be noted that in Australia, government departments, either state or federal, cover extensive geographical areas compared to many other countries.)

With this in mind, librarians were asked if they provided training for staff at other sites using online services such as WebEx® or TightVNC®. Only two librarians provided live online formal training using either these products or simultaneous telephone instruction with the client. Ten librarians said they provided 'live' informal training. Most librarians used the telephone to provide help, although respondents also mentioned instant messaging and live chat. Again it is possible that some librarians did not think of answering that they used the telephone to assist off site clients as it is 'second nature' to them.

Librarians were also asked if they provided non-mediated 'active' library instruction such as online tutorials, either those they had created themselves or links to other websites such as suppliers of databases. While there was confusion with this question with regard to the difference between an active or dynamic tutorial and static help sheets and other guides, four librarians responded that they provided these links. No librarians had created their own tutorials, but links were provided to online database tutorials, legal research, searching the Internet and bibliographic management software such as EndNote®.

Of the librarians that do not currently provide these links on their websites, none intended introducing them in the next twelve months. Two librarians were not sure if these tools were appropriate for a government library, believing they were more suited to university libraries.

Self-education in information literacy, training or instruction for librarians

The survey did not ask what qualifications or training in education or instruction the librarians possessed, but several respondents did indicate they lacked the experience to conduct formal training sessions. While there are 'train the trainer' or 'training small groups' courses available, in the authors' experience government librarians often have no access to departmental staff training funding or are not encouraged to attend courses. As we have previously reported, there is usually no specific funding for training which further limits the opportunities librarians have to develop their abilities to conduct courses in their own departments. There are more formal qualifications available such as university level graduate diplomas in information literacy and teaching, but there may also be a need for professional development opportunities in teaching and other related subjects that are broader in scope than those traditionally deemed appropriate for librarians (Henczel 2004; Peacock 2001; Winterman, Skelton & Abell 2003).

Eighty three percent of librarians indicated that they had searched for information on information literacy or user training/education. Suitable follow up questions would have been to rate the success of their searches and to ask which specific topics they had been searching. It has previously been reported that there is limited information and research specifically on information literacy in the workplace (Kirton & Barham 2005; Lloyd 2003) and that more research needs to be undertaken (Lloyd & Williamson 2008).

Seventy percent of the librarians were not members of any information literacy group, either a face-to-face or an e-discussion group. Several librarians who were on e-discussion groups commented that there was very little discussion on information literacy in the workplace with the emphasis being predominantly on the education sector. In future surveys, librarians could be asked what skills and training they need to assist them in instructing their clients.

Conclusion

While this was only a pilot study there are a number of conclusions that can be drawn. Government librarians in Australia have shown they recognise the published standards of information literacy (Bundy 2004). There was general agreement that Standard One (recognise the need for information), Standard Two (find information effectively and efficiently), Standard Three (critically evaluate information and information seeking) and Standard Six (understanding the social and legal use of information) would be included in their definition of information literacy. There was a more varied response for Standard Four (manages information collected or generated) and Standard Five (applies prior or new information to construct new knowledge) in their definition. This could reflect on the different environment that the workplace presents compared to that encountered by librarians in the education sector, and deserves further investigation.

In contrast to academic libraries, librarians in government libraries see the responsibility for information literacy training to be shared between librarians, the individuals and sometimes other departments such as IT and records management. There was general agreement that librarians had at least partial responsibility for teaching the information literacy standards except for Standard Five (applies prior or new information to construct new knowledge). The librarians either did not include Standard Five in their definition of information literacy, or if they did, they did not feel it was the librarian's

responsibility to teach this 'critical thinking' skill. This most likely reflects the differences in client base, students compared with adult professionals. Close to 25% of respondents believed that their clients were experts in their subject and it would be inappropriate for librarians to attempt to teach this skill, if it were a teachable skill at all.

Many of the librarians indicated they would like to provide more training but were hampered by lack of money, time and management support. Only one librarian had a specific budget for training and only one librarian was employed full time as a trainer (this was in one of the larger government departments). And these budgetary limitations can seriously hamper information literacy efforts, especially in state-wide agencies with low library staff numbers. Time was a particular issue with many librarians undertaking a range of tasks within their library. It was therefore surprising that online tutorials and mediated services such as WebEx® were not used as these could be useful in not only providing easy ways to help clients but could also save time.

This small study provides the first observations on how government librarians define information literacy and how they see their role in the training of staff in these skills. More research needs to be completed to gain a more comprehensive view of information literacy practices in government libraries.

In the authors' opinion, this is a strong indication that specific support is needed for information literacy in the workplace, and in particular for government librarians. This could include topics such as course development and adult learning styles, but also subjects such as time management and how to change work flows in their libraries to allow library staff to prioritise their time and opportunities for training clients.

In this study we placed an emphasis on training or library instruction for, in the authors' experience, this is where government special libraries predominantly focus their information literacy attention. Certainly, there is a growing discussion of non-instructional information literacy, of identifying methods and tools to augment experiential and socio-cultural information literacy (Hughes et al. 2005; Lloyd & Williamson 2008). This study has not tried to measure librarians' efforts towards developing these aspects but the authors are well aware that this is an area that will benefit from further study.

Training or instruction traditionally occurs for library catalogues and databases, however there are new opportunities arising in the online environment and Web 2.0 tools in particular. Some examples include teaching advanced Internet

searching (such as highlighting the use of Boolean logic, or the 'hidden web' and specific subject resources), teaching information management software such as EndNote®, demonstrating the increasing range of new information sources such as blogs, and utilising current awareness tools such as RSS. These are just a few of the potential areas for librarians to expand their training or assistance to their clients. This will in turn not only help improve the level of information literacy in library clients, but also raise the profile of the librarian as an information specialist within the organisation. However based on our survey, there is little evidence that these new opportunities have been taken up by librarians.

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Systems thinking: an approach for advancing workplace information literacy

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As the importance of information literacy has gained increased recognition, so too have academic library professionals intensified their efforts to champion, activate, and advance these capabilities in others. To date, however, little attention has focused on advancing these essential competencies amongst practitioner advocates. This paper helps redress the paucity of professional literature on the topic of workplace information literacy among library professionals.

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Introduction

Increasingly, successful professions in contemporary information and knowledge organisations are reliant on individual and collective information literacy capabilities. This paper argues that within the library and information management industry, professionals enjoy especially rich opportunities to cultivate requisite workplace information literacy knowledge, skills and abilities. Furthermore, in adopting a 'relational' information literacy (Bruce 1997) approach, they can concurrently re-invent workplace processes and practices 'with and for' organisation beneficiaries.

This initiative seeks to advance workplace learning and build upon other organisational effectiveness initiatives in the United States (e.g. Phipps 1993, 2004; Giesecke & McNeil, 2004). However, this project is distinguished in its overt adoption of a unique definition for 'organisation': a purposeful social interaction system (Checkland & Holwell 1998). In so doing, this three year study sought to acknowledge and advance Lloyd's findings about workplace information literacy (Lloyd 2004, 2005a, 2005b, 2006), that collective capabilities develop through workplace socialisation processes. From this point of departure, the project aimed to establish

and embed the sustainable social interactions which, through conversation based communication, enable investigation and negotiation of the interests, judgments, and decisions through which people learn interdependently (Stacey 2003). Within this context, 'culture' can be understood as a shared basis of appreciation and action developed through communication within an organisational system (Checkland 1994, Jenlink & Banathy 2005).

The project was conducted from 2003 to 2006 at California Polytechnic State University (Cal Poly) in San Luis Obispo, a comprehensive state-funded institution of higher education on the west coast of the United States. The primary intention was to overtly develop workplace information literacy competencies among professional employees.

The assumptions underpinning this initiative included a radical proposition – that active involvement and collaboration with present and potential library users is required for the evolution of a learner centred approach for co-designing libraries of the future. Therefore, project planners assumed that in order to develop organisational capacity for nimble responsiveness, librarians must actively discover new roles, responsibilities and relationships 'for and with' users. As the following case study demonstrates, fulfillment of these propositions required forging new social relationships within the university library organisation as well as with campus community constituencies.

While a variety of holistic organisational development methodologies exist (Jackson 2003), project planners chose Soft Systems Methodology (Checkland 2000) due to its proven success in promoting organisational inquiry and learning. In addition, its abiding focus on the process of converting data into information and knowledge serves to overtly advance project participants' information literacy, as expressed in the Australian and New Zealand Institute for Information Literacy (ANZIIL) framework (Bundy 2004). Thus, the ANZIIL framework has served as a foundation throughout the development of an enabling approach for initiating and advancing Lloyd's socialisation model for workplace information literacy.

Soft Systems Methodology (SSM) was also deemed particularly suitable as it does not require the establishment of clear goals before problem resolving can begin. Rather, it provides management tools for considering chaos and advances forward thinking agreements for action, opening up novel and elegant proposals for change (Checkland 1999).

Finally, the 'soft' systems thinking methodology was selected because of its propensity to heighten organisational members' appreciation for the 'whole' university, of which the library organisation is a 'part', in terms that cultivate the critical thinking proficiencies necessary for librarians to become architects of knowledge enabling spaces and places (Somerville, Mirijamdotter, & Collins 2006) – a promising 'new frontier' for 21st century librarians (Materska, 2004). In addition, 'soft' systems thinking encourages the essential components of workplace information literacy including collective enquiry – in this case between users and librarians – and the development of shared understandings and practices integral to the socialisation processes for organisational learning.

Workplace information literacy

Workplace information literacy is a collaborative, socio-cultural practice within a context specific environment (Bruce 1999; Bawden & Robinson 2002; Lloyd 2004; Lloyd 2005b; Kirk 2004) consisting of a 'constellation of skills, practices and processes' (Lloyd 2006). Illustrated in Lloyd's (2005b) findings from her doctoral study of firefighters, workplace information literacy focuses on the construction of shared professional meanings and development of collective outcomes through situated engagement with information. These contextualising experiences reflect various information literacy conceptions (Bruce, et al 2006) which, once acquired, provide pathways to lifelong learning (Bundy 2004; ALIA 2006).

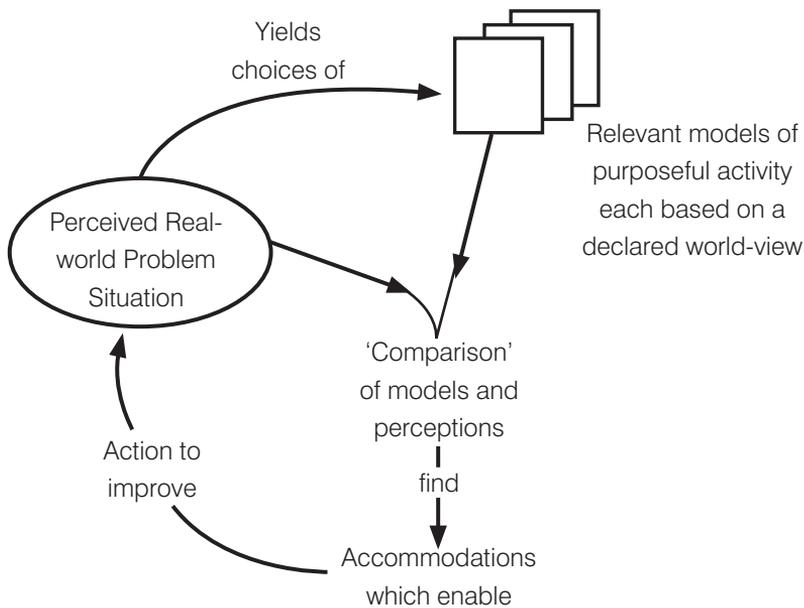
Workplace information literacy is not simply an individual experience. Rather, it develops within a workplace context and is collectively experienced at both group and organisational levels. As identified by Billett (1999), four key sources of workplace learning encompass the activities of work, the workplace, other workers, and the practices of listening and observing. Adding further dimension, Bruce's study of workplace information literacy experiences acknowledged close correspondence between the information literacy facets and common workplace activities (Bruce 1999). These relationship-based frameworks can guide the appreciation for and advancement of information literacy within professional practice experiences of both individuals and organisations. Similarly, Lloyd (2005a) found that workplace information literacy is a context specific learning process in connecting information sources in the workplace with learning practices required to access them. Information literacy facilitates the conversion from individual to collective views of practices and competencies, as well as integration within a situated context (Lloyd 2005a).

For the purpose of this paper, we use Lloyd's (2004) definition of information literacy: 'information literate people are engaged, enabled, enriched, and embodied by social, procedural, and physical information that constitutes an information universe'. This definition encompasses the socialisation processes and workplace context that facilitate workplace information literacy identifying it as a collaborative process, forged largely by informal workplace social relationships. It is dependent on engagement with and drawing meaning from social and physical information sources as much as from textual knowledge sources (Lloyd 2006). Information exchange and knowledge creation occurs within organisational culture through everyday social interactions with colleagues. In corroborating Lloyd's results, Kirk's (2004) study of senior management found that information use was embedded within workplace social relationships. Lloyd (2006) takes this insight further by discussing workplace information literacy as not only the social distribution but also the social production of information and knowledge, in which access to it may be affected by social relationships.

In the following highlights from a three-year case study in North America, an evidence-based, systems thinking 'research-in-practice' approach (Somerville et al 2007) is advanced for purposeful introduction of a sustainable, social relationship-based approach to cultivating workplace information literacy among information and knowledge professionals. The project aims to concurrently foster both information distribution and knowledge production.

'Soft' Systems Methodology

The foundation for this action research study was Soft Systems Methodology developed over a thirty year period by Dr Peter Checkland and his associates at the University of Lancaster in the United Kingdom. The systems thinking approach is comprised of an iterative four stage process – finding out, modeling, comparison, and taking action (Figure 1).

Figure 1: Soft Systems Methodology Basic Process (after Checkland, 2000)

The information literacy capabilities of recognising an information need and identifying information sources animate the data collection activities which drive the continuous learning processes in the workplace. Following information gathering, researchers initiate evaluation, interpretation, and organisation of collected evidence, which is presented in the form of visual models depicting findings. These user-centred renderings are then contrasted in the comparison stage against models of the current real-world situation. The aim throughout is to discover problems and recommend improvements. Following organisational implementation, a new cycle of problem discovery and user consultation begins.

SSM is well known for its contributions to organisational learning. Adaptation of SSM's constitutive elements to the institution's student-centred 'learn by doing' educational philosophy produced a highly collaborative, interactive, and 'voiced' approach. This served to achieve two purposes – the gathering and interpreting of data and, concurrently, the (re)designing of systems 'for and with' users. With particular relevance to this case study, it encourages reconsideration of workplace assumptions – moving the librarians from a narrow understanding of their department to a broader and deeper knowledge of the University environment and its stakeholders.

As the project illustrates, this research-in-practice activated and challenged participants' prior understandings and assumptions. Concurrently, individual learning was advanced to produce organisational learning (Stacey 2003), affirming that 'no matter what the previous history, every system can be altered and reinvented [i.e.] if organisations are constructed, they can be reconstructed' (Norum 2001, 324). Throughout, organisational leaders encouraged reflective communication (Varey 2005) reinforcing learning and workplace information literacy through social relationships and enabling professional dialogue necessary for libraries to serve as dynamic centres of instruction, exploration and learning.

In these SSM applications, librarians participated in an ambitious series of projects in which student-generated results informed the design and development of several digital initiatives, including an academic research guide, a digital research portal, and a website persona prototype. Throughout, a wide array of research methodologies, including focus groups, usability studies, rapid prototyping, and user surveys (Somerville & Brar, in press), were employed within the framework of 'soft' systems thinking, which ensured consideration of the human element in systems analysis and design. The action research orientation encouraged real world benefits, including advancement of an evidence-based workplace learning culture (Somerville et al. 2007), contributing to collective practices and competencies essential to workplace information literacy.

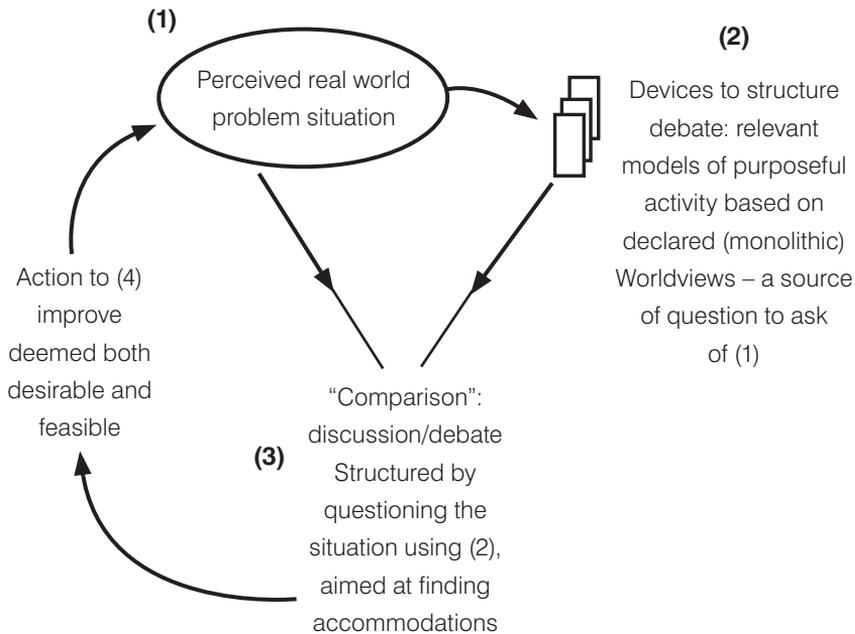
Systems thinking-enabled library projects

The Cal Poly organisational learning approach utilises systems thinking within a participatory action research framework to inform and guide outcomes. In contrast to other types of applied research where the researcher is seen as the expert, participatory action research involves practitioners as both subjects and co-researchers. In this case, the university's student-centric 'learn by doing' educational philosophy informed creation of a collaborative user-centred design approach. It drove librarians' agreement to invite student-generated research projects, with the aim of obtaining authentic perspectives on 'user experience' expectations, preferences, wants, and needs. This approach required relinquishing control of the research process: students, with faculty supervision, generated problem definitions, chose research methodologies, conducted data analysis, and reported research results.

Librarians were prepared to work with user-centred evidence through practice with SSM processes and tools. The holistic systems thinking framework

guided interpretation of student-generated evidence, providing a common language and shared tools for discussion and analysis of complexities and interdependencies. More particularly, the constitutive elements of SSM – finding out, modeling, comparing, and taking action – informed the iterative process of identifying and evaluating meaningful data, comparing and contrasting multiple interpretations, and delineating and infusing thoughtful insights and unsolved curiosities, into a continuous learning process. This information formed the foundation for engaging, enabling and enriching librarians within their ‘information universe’ (Lloyd, 2004), contributing to their workplace information literacy skills (Figure 2).

Figure 2. Sense-Making Model for SSM Practices (after Checkland & Winter 2006)



Note: Steps 1–4 are not sequential. Once initiated, a study will exhibit action in all four simultaneously.

In customising this inquiry-based learning approach to campus culture, librarians invited Human-Computer Interaction (HCI) students, supervised by senior professors, to contribute to problem definition, methodological implementation, and data analysis activities (Somerville & Brar 2008; Somerville et al 2007). Over a three year period, from 2003 to 2006,

reliance on student-framed, student-conducted, and student-reported research results shifted project decision making from 'library centric' to 'user centric.' This occurred naturally as student-generated and student-interpreted evidence caused librarians to question existing ways of seeing and doing things and 'opened up novel and elegant proposals for ... advancing thinking and taking action' (Jackson 2003).

SSM's action research orientation compelled librarians to become both reflective (re)learners and also responsive action takers. In addition, it ensured that practical problem solving occurred simultaneously with professional enrichment as librarians reconsidered organisational purposes, reinvented constituency relationships, and re-imagined workplace roles within the context of a 'big picture' appreciation for the larger academic enterprise (Somerville et al 2005a; Somerville et al 2005b; Davis & Somerville 2006).

As librarians exercised and advanced their workplace information literacy proficiencies, they moved beyond their departmental information 'planet' into the information 'universe' of the University. In working with raw data, they found SSM taxonomy helpful for making discriminating distinctions between data, information, and knowledge. For instance, the subtle but critical difference between 'capta', data selected or attended to, and 'information', meaningful selected data in a context, prepared them to desire 'knowledge', larger, longer-living structures of information (Checkland & Howell 1998).

For professionals accustomed to making information organisation and access decisions for authoritative refereed literature – but not working with the ideas embodied in those resources nor with 'pre-screened' information, SSM classifications aided development of both contextual and situated perspectives on user needs and creator viewpoints (Somerville et al 2005b).

Over time, as project participants internalised this understanding, their work priorities reflected that, in the conversion of data to knowledge, data becomes more valuable at the point that it is transformed into information within a context. Librarians experienced this phenomenon early in the project when they used SSM to reflect upon the service usage statistics collected and reported annually. They had never before analysed and interpreted the data. Through SSM-guided discussion, selected data proved especially informing, for example declining transaction numbers became capta. In furthering the foundational SSM 'finding out' phase, librarians compared usage and resource patterns over time providing an improved understanding of the organisation's situation, as well as advancing collective 'sense making' capabilities. Through such

ongoing conversation-based, data-driven inquiry, librarians developed shared understandings for repurposing and reorganising priorities.

Of significant – though unanticipated – importance, the very nature of the SSM inquiry process encouraged participants to move beyond previously circumscribed professional boundaries in librarianship that permit ‘getting to’ but discouraged ‘getting into’ domain content. Through explicit incorporation of ‘sense making’ and ‘meaning making’ into librarians’ professional repertoire their boundaries of concern and influence expanded. Concurrently, they developed first hand knowledge of the continuum of users’ information conceptions and capabilities, as reported elsewhere (e.g., Cheuk 1998a, 1998b, 2000, 2002; Bruce, 1999; Kuhlthau 1999; Kuhlthau & Tama 2001; Smith & Martina 2004; Lloyd 2004, 2005a, 2005b, 2006; Al-Daihani, S. M., et. al., 2007).

Throughout, librarians’ explicit development of information literacy proficiencies built collective capacity to frame appropriate questions, select authoritative resources, and interpret and apply richly textured insights that accelerated sound decision making about work purposes, processes, and relationships. Mindful of ANZILL’s relational precept, librarians concurrently developed both disciplinary knowledge domain and information literacy proficiencies that increasingly expanded their boundaries of concern, involvement, and influence.

At its core, the SSM approach seeks to explicate multiple stakeholders’ perspectives. In so doing, it enriches participants’ understanding of situations through illuminating others’ viewpoints. It also provides context in which individuals can view their own perceptions anew. Finally, SSM advances information competence within organisational members as they experience information literacy (learning), reflect on experience (becoming aware of learning), and apply experiential insights to novel contexts (transfer of learning). The latter proficiencies were cultivated through coaching participants through increasingly complex learning activities involving identifying and framing questions, gathering and evaluating information, organising and synthesising it, and presenting insights to inform and advise. Learning emerged out of progressively ambitious evidence-based, user-centred collaborative inquiry processes.

Collaborative Design Elements

This SSM enabled user-centred co-design approach is both a philosophy and a process in which the needs, wants and limitations of end users play a central role at each stage of the design process. A key feature of this design methodology is the integral and extensive use of qualitative data collection and analysis methodologies – open ended interviews, focus groups, ethnographic

studies, and participant observation, while quantitative methods provide supporting evidence. In addition, the emphasis on iterative design leading to rapid prototyping of solutions which can, in turn, be evaluated, modified, and implemented in a relatively short time frame, ensures users' instant gratification.

Data collection and evidence interpretation required frequent face to face discussion between university librarians and student researchers throughout the design and redesign processes. This ongoing dialogue served to advance mutual sense making during decision making and action taking activities to improve user experiences throughout the three year study. During such discussions, librarians obtained valuable 'voiced' insights into user constituency perspectives. Ongoing relationships with supervising faculty also offered the possibility to continue studying different aspects of a particularly perplexing problem in subsequent academic quarters enabling ongoing workplace learning and collaboration opportunities. Finally, the action orientation and workplace information literacy outcomes encouraged quick prototype problem solutions, service improvements, and organisational changes that enabled continuous improvement and promoted sustainable communications within the library and campus community.

The role of organisational leadership

Responsibility for creation of this robust organisational learning environment, which activated and furthered workplace information literacy, ultimately resided with the organisational leader. The leader became the enabling workplace environment architect. As such, the leader's actions were critically important for making and sustaining organisational change and fostering workplace information literacy. At the conclusion of the collaborative projects, four critically important behavioural elements for organisational leadership emerged.

1. *Role model*. The leader must reflect in all communication and action that systems thinking is both a preferred and successful method for structuring individual and group thinking processes. For example, in a discussion among team members, the leader reinforces individual and collective knowledge and encourages librarians, together, to apply their expertise to the problem situation at hand.
2. *Holistic focus*. In making tacit systems thinking explicit, the leader sets the stage for organisational transformation. For instance, even when speaking about the individual, the leader explores the relational context, providing a holistic viewpoint. The leader places formal and informal conversation in the context of the four stages of SSM: finding

out, modelling, evaluation, and taking action. In this way, the leader incrementally builds the infrastructure for rich relational information experiences that produce new insights.

3. *Communication enabler.* Concurrently, the leader instills and advances the vision held among information organisation members by leveraging group communication opportunities to further the systems thinking process. To ensure 'any time, any place' access to shared knowledge, the leader uses participatory systems design strategies to build suitable infrastructure for organising organisational knowledge and making it available through different media, including intranets, databases, and mail groups. Throughout, the leader encourages exploration of better ways to create contextual meaning.
4. *Knowledge facilitator.* Finally, the leader infuses shared knowledge into both formal and informal socialisation efforts intended to ensure and extend the holding of collective context amongst individuals, for the purpose of institutionalising organisational memory. Through appropriate capturing strategies within a systems thinking context, such as internal reports and in-house courses and seminars, the leader co-creates new stories and new meanings. The leader also explores possibilities for leveraging technologies to advance collaborative knowledge creation.

Through displaying the four behavioural elements above, the organisational leader fosters and sustains workplace socialisation processes and organisational learning supporting the development of workplace information literacy. Through this organisational discovery process, librarians developed a shared vision for a repurposed organisation, relinquishing long standing traditional functions and models. They came to appreciate and embrace new applications for their expertise within the larger context of the university's core knowledge creation and dissemination mission. This awareness developed through the iterative SSM guided projects, as librarians worked collaboratively with students to rethink, repurpose, and retool. As they practised identification and consideration of others' points of view, they progressively synthesised a 'big picture' of all the pieces of the situational puzzle. In so doing, librarians' information literacy skills were enhanced as they became consciously immersed within the social, procedural and physical information of their organisational environment.

As project participants considered further uses for systems thinking, they recognised that organisational responsiveness depended on transforming their workplace culture from reactive to proactive. Throughout, the organisational leader assumed responsibility for guiding the (re)design of workplace environments rich in relational information experiences and social interaction

opportunities. Conversations and contexts were created which revealed and related the information of workplace participants and, increasingly, organisational beneficiaries.

The four-stage Soft Systems Methodology process – finding out, modeling, comparison, and taking action – was used to structure relational dialogue-based processes for making librarians' tacit knowledge explicit. In this way, the application of SSM tools both invited and required information sharing and, as a result, tacit knowledge made explicit emerged quite naturally. Furthermore, by its very nature, SSM creates relational context for information held by individuals and shared by groups as they practice framing appropriate questions and evaluating possible choices. Systems thinking, in this case, serves as the process tool for insightful learning, workplace information literacy and organisational development.

Conclusions and reflections

Throughout, the quintessential elements of systems thinking – processes, purposes, relationships, and properties – comprised the framework for initiating and sustaining socialisation processes enabling workplace information literacy. Over the course of the three year project, system design and redesign initiatives progressively reflected the methodology's four part cycle: initiating dialogue, creating meaning, forming intentions, and taking action, prompting the observation, in the words of Jackson, that 'perhaps the main strength of systems ideas ... is the guidance they offer to practitioners' (2000, 423).

Among the most profound implications for this organisation's collaborative design approach were the robust learning relationships established with system beneficiaries. This required that, in the process of engaging in conversations and dialogue, librarians reconsidered their purpose within the higher education enterprise and, subsequently, re-invented their roles and responsibilities, processes and relationships. This required engagement with and appreciation for multiple perspectives and situations. Shared commitment to build upon these diverse viewpoints produced a more inclusive workplace climate.

Within this workplace context, systems thinking processes ensured careful consideration of student produced evidence to guide the iterative process of evaluating meaningful data, comparing and contrasting multiple interpretations, and infusing reflective insights, and unsolved curiosities, into a continuous learning process. Growing conversance with a variety of user-centred (re)design strategies incrementally aided librarians in fulfilling their expanded responsibilities as collaborative architects of digital information and knowledge

enabling spaces. They learned to approach their new responsibilities with confidence, grounded in collaborative SSM enabled evidence-based practices for decision making and action taking. In such an appreciative setting within a leader orchestrated learning environment, individuals exercised and expanded their information literacy proficiencies. Self improvement was transferable to creation of successful teams which leveraged the strategic advantage of powerful inquiry tools and reflective practice to 'learn the way' for and with present and potential library beneficiaries.

At project's end, this holistic systems thinking framework overtly guided participants' performance of day-to-day work activities which reflected Lloyd's (2004) definition of information literacy. Librarians were re-engaged within their organisational environment – which came to extend well beyond the boundary of the library unit and also the library walls. They were noticeably empowered by the emergent collaborative socialisation processes. In this spirit, project participants' outcomes included a common language and tools for discussing and analysing complexities and interdependencies within an extended universe of organisational influence. Through these contextualising socialisation processes, born through the systems thinking framework, workplace information literacy capabilities were fostered, as documented by regular evaluations provided by an external project reviewer (Mirijamdotter & Somerville 2009, in press).

In turn, workplace learning informed co-design processes of initiating dialogue, creating meaning, forming intentions, and taking action. Such rich context additionally guided iterative processes for evaluating meaningful data, comparing and contrasting multiple interpretations, and infusing reflective insights, and unsolved curiosities, into a continuous learning process that challenged existing ways of seeing and doing, even as it informed co-creation of digital futures.

Although the study results are specific to the Cal Poly situation, they may also inform other library organisations as the project investigates the evolution of traditional academic libraries into nimble 21st century learning organisations. Information intensive 'soft' systems thinking, fortified by relational information literacy, was used to re-invent organisational structure, service priorities, and staff assignments, guided by organisational leaders who fostered the application and advancement of information literacy, knowledge generation, and collaborative learning among faculty, staff, and students.

As a result, the authors advance Lloyd's earlier research findings that workplace information literacy among Australian fire fighters occurs primarily through socialisation processes. Project planners desired to discover a way to identify

and cultivate success factors which 'naturally' developed among Lloyd's fire fighter subjects, for reasons of ensuring their physical survival. In attempting to identify and replicate the critical factors, this exploratory study in an academic library environment employed a contextualising 'systems thinking' framework to guide collective inquiry for the purpose of exercising and advancing individual and team information literacy capabilities. This requires revisiting and re-inventing professional roles, campus relationships, and library institutions defined by industrial age models. In so doing, librarians can move from traditional information gatekeeper functions to fulfill new knowledge enabling opportunities.

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Information literacy and the public library: we've talked the talk, but are we walking the walk?

Jane Harding

There has been much talk about libraries, including public libraries, being uniquely positioned to act as key agents for developing the critical skill of information literacy in their communities. Yet there is a notable lack of literature addressing information literacy and the public library, especially when compared to the volume of material on the topic in relation to school and academic libraries, which might suggest that public libraries are not actively engaged in information literacy efforts. In light of this, a literature review was undertaken to discover why public libraries are viewed as such valuable agents in developing information literacy and what efforts, if any, have been undertaken by public libraries. The literature reveals that, despite myriad challenges, public libraries worldwide are embracing this imposed responsibility and have implemented a wide array of information literacy programs. Not only have public libraries talked the talk, they are walking the walk with respect to furthering information literacy in their communities, albeit along a poorly-defined and obstacle-strewn path.

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Introduction

It is over thirty years since the term 'information literacy' was first coined by Paul Zurkowski (Spitzer, Eisenberg & Lowe 1998, p. 22) and nearly twenty years since the concept came to the forefront of the information profession. Libraries of all types have been charged with taking an active role in fostering an information literate society and public libraries have been presented as obvious and well-equipped institutions for imparting these critical skills to the wider community.

A myriad of how-to guides, reports, studies and nationally-defined goals and objectives provide a framework for the development of information literacy programs in school and academic libraries. By contrast, there is very little

published literature addressing the efforts of public libraries. Nonetheless, public libraries are embracing this imposed and acknowledged responsibility, with evidence of a wide range of information literacy-based programs on offer in public libraries worldwide. Although these programs vary in format and content, most libraries have approached information literacy skills instruction in similar ways and appear to have found a balance between the expectations placed on them by various government and information industry bodies, user demands, and available resources. It is also clear that the scope of implementation of programs is being limited by a range of factors, some of which are the very characteristics originally identified as strengths of public libraries' involvement in information literacy development.

Information literacy and the public library: an overview

Information literacy is widely considered to be an essential survival skill for life in the Information Age, a vital underpinning to lifelong learning, and critical for a thriving democracy (Batt 1998; Boekhorst 2003; Brown 2003, p. 261; Bundy 1999a, p. 49; Curran 1991, p. 47; Johnston & Webber 2006, p. 108; Kahlert 2000, p. 2; Kurbanoglu 2004, p. 23; *The Prague Declaration* 2003; Putnam 2005, p. 2; Ralph 2000, p. 9; Eisenberg, Lowe & Spitzer 2004, p. xvii; Thorhauge 2003, p. 2; Todd & Tedd 2000, p. 375). Many definitions of information literacy have been proposed and debated in the thirty years since the term was first introduced, most of which reflect similar attributes to the following commonly cited definition:

...to be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information (American Library Association *Presidential Committee on Information Literacy: Final Report* 1989).

Alan Bundy (2002b, p. 131) has identified information literacy as an issue of importance to all of society. Public libraries are regarded as being a leading and powerful force, ideally suited to promoting the development of information literacy and encouraging lifelong learning in their communities (Brievik & Gee 1989, p. 48; Bundy 1999b, p. 95; Elkin & Lonsdale 1996, p. 58; Leininger 2005, p. 1; American Library Association *Presidential Committee on Information Literacy: Final Report* 1989, p. 2). The provision of information literacy training by public libraries is highlighted as an 'essential service' and 'the most important goal of libraries' with some suggesting that 'no other entity – government or private – is as ready to take on this growing need,

has the skill-set necessary, or can do it as inexpensively as the public library' (Barber 2004, p. 15; Leininger 2005, p. 1 & 3). Public libraries have recognised and accepted this responsibility as reflected in the inclusion of information literacy as a goal in their various mission statements and strategic plans.

Public libraries, in providing information literacy instruction, have the opportunity to foster the lifelong learning of their communities; lifelong learning being described as 'gaining knowledge to lead better, more fulfilling lives' and differentiated from formal, accredited programs of study (Batt 1998; Bundy 1999b). In fact, the concepts have become inextricably linked in the literature and it is not uncommon to find the two terms used interchangeably. There is also a tendency for information literacy to be used synonymously with 'user education' and it has been suggested that information literacy is simply a new brand name for the user education that librarians have traditionally provided (Woods, Burns & Barr 1990, p. 49; Grassian & Kaplowitz 2001, p. 4; Skov 2004, p. 1; Thorhaug 2003, p. 1). However, the three terms do represent different, yet inter-related, concepts.

Library instructional programs of the past (be they called bibliographic instruction, user education, or library orientation) had the primary purpose of helping patrons use the library's resources more effectively (Farber 1990, p. 3; Grassian & Kaplowitz 2001, p. 3). While information literacy certainly requires bibliographic skills, it is more than simply knowing how to use the library and its resources. While there are many perspectives on whether information literacy is a set of skills or literacies, an attribute, or a process, there is agreement that it is a problem solving activity that involves critical thinking and the ability to apply information to an individual's life (Breivik 1985, Bruce 1997, Kuhlthau 1989, 1990, Rader 1991 all cited in Grassian & Kaplowitz 2001, p. 5–6; Doyle 1994). It is this constructivist emphasis that is seen as differentiating information literacy from bibliographic instruction (Arp 1990, p. 46; Hart 1998, p. 36–7). Its focus is on developing people's ability to 'learn how to learn' (American Library Association *Presidential Committee on Information Literacy: Final Report* 1989) and therefore provides a foundation for lifelong learning.

Information literacy is clearly far more complex than the user education of days gone by and the question arises – how can these concepts be taught in the public library environment and are public libraries actively engaged in doing so?

What has been published in the literature?

The first step was to review what has been published, both in terms of practical advice to public libraries and documenting what public libraries are doing. It soon became evident that there is a notable lack of literature and research on the subject of public libraries and information literacy, particularly when contrasted with the volume of writing addressing the school and academic environment. Those monitoring the field have observed this paucity (Hart 2006, p. 48; Jackson 1995, p. 36; Lewis n.d.; Walter, 2007; Virkus 2003).

For many years, Hannelore Rader conducted annual reviews of the literature, culminating in a review of 25 years of literature in 2000, which scanned 3900 publications over the period 1973–1998, and categorised articles by type of library. Anne Marie Johnson and Sarah Jent, who have compiled similar reviews for the years 2000 through 2005, have continued Rader's efforts. The resultant finding of these summaries is that only approximately 2% of articles addressed information literacy in the context of the public library, with the proportion of articles decreasing to under 2% in more recent years (Johnson 2001; Johnson & Rader 2002; Johnson 2003; Johnson & Jent 2004; Johnson & Jent 2005; Johnson & Jent 2007; Rader 2000). This is compared to 52–62% for academic libraries and 20–35% for schools.

Johnson acknowledges that her reviews have been limited to English language articles and those readily available via US-based electronic databases and that it is an unscientific sampling. Additionally, both Rader and Johnson & Jent include a category of 'all types' in their summaries. In examining the articles in this category, it becomes apparent that a reasonable number, particularly in the most recent years, were pertinent to public libraries. This suggests that some articles should have been classified twice to more accurately reflect the scope of writing in various sectors. Johnson (& Jent) (2001 & 2005) partially acknowledge this in their observation of an increasing emphasis on articles dealing with collaboration between different types of libraries.

A similar lack of emphasis on the public library is reflected in the books and 'how-to' guides that have been published on the topic of information literacy. A review of offerings from both Neal-Schuman Publishers and ALA Publishing, two leading publishers of reference literature for librarians and teachers, reveals that more than half of the works focus on academic libraries and approximately one-quarter on schools. Only two were identified that gave genuine attention to the public library although this was not discernible from the titles. The recently

published work *Proven strategies for building an information literacy program* (2007) includes one chapter by Virginia Walter, a UCLA lecturer, addressing information literacy and the public library, which provides a synopsis of the current situation with regard to information literacy instruction in public libraries. Contrary to the book's title, however, it does not delve into the 'how-to's'.

Several other books are consistently referred to as key works in the field of information literacy yet pay similarly scant attention to the public library. Eisenberg, Lowe & Spitzer's *Information literacy: essential skills for the information age* (2004), described by Patricia Brievik in the foreword as 'one of the most definitive on the topic', has only one page out of four hundred dedicated to discussion of the role of the public library and this is in the context of the future of information literacy. This is despite the acknowledgement in the introduction that information literacy is an issue relevant to everyone. An annotated bibliography, which runs some 85 pages, fails to include a category for public libraries although this may be due to the bibliography having been compiled from the ERIC database, which has its focus on education. Similarly, Bruce and Candy's *Information literacy around the world: advances in programs and research* (2000) fails to include a chapter or section on public libraries or even acknowledge the public library as a valuable stakeholder in information literacy development.

Despite this observed lack of literature and obvious gaps in publishing, persistent searching of databases and the World Wide Web did net a range of literature. Substituting the terms 'lifelong learning' and 'user education' in place of 'information literacy' expanded the search results. Much of this literature takes the form of reports and synopses addressing the role of public libraries and/or outlining activities in public libraries. Only three formal studies were identified:

1. **Bruce and Lampson** (2002) undertook an investigation into the attitudes of librarians in Washington State towards information literacy. The purpose of the study was to determine by way of survey and focus groups why goals with respect to information literacy were not being met. The study included librarians from all disciplines and the number of public librarians appears to be higher than those from other sectors although in proportion to the library community in Washington State. The result was the identification of a range of factors affecting the approach of librarians to the task of information literacy instruction, which are directly applicable to a review of information literacy efforts in public libraries.

2. **Hart** (2006) attempted to assess the readiness of public libraries in one province of South Africa to assume responsibility for information literacy education, particularly with respect to students. Although focused on students and limited to a small geographic area, it provides insight into the perceptions and attitudes of public librarians with respect to information literacy, which will provide useful background to future studies.
3. **Julien & Breu** (2005) undertook a survey of information literacy programs in Canada with the aim of assessing whether Canadian public libraries were living up to expectations with respect to developing the public's information literacy skills. The study identified the ways in which public libraries were approaching information literacy instruction as well as the factors limiting implementation of programs. Although the method of determining the sample size is not clear and appears disproportionate across the various geographic regions in comparison to the populations of the regions, the qualitative information obtained is valuable for future program development by public libraries.

Why the public library: its strengths

Although the public library is under-represented in what has been published, there is sufficient material to begin to develop a picture of the state of information literacy programs in public libraries.

Firstly, a wide range of strengths of the public library as a provider of information literacy skills training can be identified:

1. Traditional and recognised role as place of learning

Public libraries, since the earliest times, have been perceived as learning places and have 'always occupied a place in education' (Brooklyn Public Library Literacy Report, cited in *21st Century Literacy @ your library* 2001; Kahler 2000, p. 5; Poustie 1999a, p. 2; Todd & Tedd 2000, p. 375).

An ongoing belief in the public library as a learning institution was confirmed in several reports by working groups in 1995 and 1996. Both the *Navigating the economy of knowledge* and *2020 vision: towards the libraries of the future* reports acknowledged that public libraries are functioning as an arm of the 'national education system' (Mercer 1995 and Mercer & Smith 1996, cited Poustie 1999b, p. 9–10). In a US study of possible roles for public libraries, it is interesting to note that the public perception of the most important

role for the public library relates to lifelong learning (Poustie 1999b, p. 7). Similarly, studies of British public libraries have placed public libraries firmly in the equation of lifelong learning and education (Poustie 1999b, p. 9).

2. Information literacy experts

The principles of information literacy are considered to mirror the traditional values of public libraries and librarians are viewed as information literacy experts (Brooklyn Public Library Literacy Report, cited in *21st Century Literacy @ your library* 2001; Jackson 1995, p. 35).

3. Broad client base

The public library is a community facility, serving the information needs of all members of the community (Jackson 1995, p. 43). It has a wide diversity of clientele and the potential to reach all cross-sections of its community from children to seniors, and across minority groups and educational and professional levels and thus has the opportunity to develop information literacy throughout the community (Kahlert 2000, p. 5).

4. Child's first learning experience

A child's first independent learning experience (where they go to seek information on a topic of interest, to find some new jokes etc.) and first access to information technology often occurs at the library. Children are exposed to the use of information directly through tailored library programs and indirectly via the behaviour of adults, which combine with general positive library experiences through story-time sessions and summer reading programs (Grassian & Kaplowitz 2001, p. 343; Skoglund cited Hinchcliffe 2003, p. 313; Ziarnik 2003, p. 21). The public library can encourage children from an early age to value information as well as support them in learning about and gaining access to information (key elements of information literacy) as well as instilling the value of the library as an information source and learning place (Grassian & Kaplowitz 2001, p. 338).

5. Lifelong contact with members of community

Schools and universities can provide information literacy support and instruction during years of formal education but do not serve individuals in the subsequent years of informal or self-directed study or life. As information literacy is a lifelong skill, public libraries are perfectly positioned to be a 'constant presence

throughout people's lives', and able to provide ongoing support to individuals in developing information literacy skills (Loomis 1995, p. 131; Skoglund cited Hinchcliffe 2003, p. 314; Ziarnik 2003, p. 21–23).

6. Teachable moments

Public libraries have the opportunity to provide one-on-one instruction during client-librarian interactions such as reference interviews, which is often cited as the most effective means of information literacy instruction (Bruce & Lampson 2002, cited Julien & Breu 2005, p. 285; Gehrig 2005, p. 36; Harris 2003, p. 221; Koning 2001; Leininger 2005; Rockman 2003, p. 210; Wilson 2003; Ziarnik 2003, p. 23).

7. Partnerships

Public libraries have a proven ability to form partnerships and work with other stakeholders (e.g. schools, universities) to build information literacy skills and deliver training.

8. Key access points

Public libraries are key providers of electronic and print information and can offer appropriate training programs and on-the-spot assistance to citizens in gaining necessary information skills and developing proficiency in use of these resources (Rader 2003, p. 27).

What are public libraries doing?

The literature also reveals that there is a wide array of well-established information literacy programs on offer in public libraries worldwide. It is evident that public libraries have embraced their imposed and acknowledged responsibilities with respect to information literacy development despite the lack of clearly defined guidelines or manuals to assist their efforts.

The programs in place are diverse but fall into several broad categories. They tend to address elements of information literacy rather than the process as a whole and capitalise on the strengths of the public library. As Hart (1998, p. 37) observes in examining the public library's role in information literacy education, the 'challenge is to design effective programs which take into account our own realities', and it is evident that this is, in fact, what public libraries have done. In the absence of a framework, public libraries have found their own balance point between their responsibility for providing information literacy instruction, the demands of their community, and their available resources in the following ways:

1. ICT/Technology access and training

A key element of information literacy is the ability to locate and access information. The 21st century has seen an explosion not only in the amount of available information but in the range of non-print formats in which this information is published – CD ROMS, electronic databases, web pages. Public libraries have followed this trend, investing substantial amounts of money in digital and electronic resources and the technology to access them. However, these resources are of no value if individuals cannot access them or use them effectively and thus the need for libraries to provide training and support to enable their patrons to 'navigate, explore and evaluate the information sources' (Burrell 1999, p. 2; Poustie 1999a, p. 2 & 8; Warnken 2004, p. 5).

It is in this area that it appears public libraries have made the greatest inroads. The provision of public Internet access is a commonly available service in public libraries worldwide with access to technology viewed as 'one avenue in which public libraries can progress lifelong learning within community' (Kahlert 2000, p. 6). Additionally, many public libraries have implemented successful programs of ICT training. Many of these are targeted to specific groups within the community, such as seniors, teens, mothers, genealogists, and young people. Some of these programs are directed at imparting basic computer skills. For example:

- Norway: ICT training is provided for seniors and other minority groups (Audunson & Nordlie 2003, p. 324).
- Canada: Vancouver Public Library has partnered with schools to provide training in use of the library's electronic resources (OPAC, databases and linked websites) (Tosa & Long 2003, p. 14).
- Australia: Sunshine Coast Libraries in Queensland offer regular sessions on a range of basic computing skills (*Tutorials* 2008).

Others take this training a step further, expanding into the evaluation of resources, generally in conjunction with Internet training. For example:

- Spain: '*Intelligent use of internet workshops*' (Tarragona and Murcia) (Hernandez 2003, p. 343).
- Australia: The City of Stirling (Western Australia) includes a session on 'using the internet effectively' in their array of training programs at the Mirrabooka branch library (Poustie 1999a, p. 8). In the 'Introduction to the Internet' class at the Noosa Branch of Sunshine Coast Libraries in Queensland, this author emphasises the evaluation of search results and websites.

- United States of America: Farmington Community Library (Michigan) extends their training sessions to include 'critical evaluation of online content' (Himmel 1998, p. 111). Santa Monica Public Library in California also includes website evaluation in its class (Walters 2007, p. 6).

While most of these classes are delivered to small groups, there is a flow through effect to the wider community as participants subsequently use their newfound skills to assist family members or friends (Walters 2007, p. 8–9). Additional support and learning opportunities are provided via subscription-based services such as Learningfast and Websters E-learning, which deliver online tutorials on a range of ICT related topics. These are generally available via a library's website and are accessible from client's homes or offices at any time of the day.

2. Ad-hoc through reference interviews

Many libraries report that this is one way in which they are able to readily advance information literacy instruction. It has been argued that capitalising on 'one-on-one' teachable moments such as during reference interviews is the most effective option for information literacy instruction (Bruce & Lampson 2002, cited Julien & Breu 2005, p. 285; Koning 2001; Leininger 2005; Rockman 2003, p. 210; Wilson 2003). Others assert that individual instruction 'doesn't realize the library's full value to the community' and advocate for formal programs of user instruction, such as group classes (Hendley 1988, p. 86 cited Jackson 1995, p. 38; Woods, Burns & Barr 1990, cited Jackson 1995, p. 35). However, there is little evidence that this 'mass instruction' has 'any lasting positive impact on citizens' (Curran 1993, p. 262).

This form of instruction provides the opportunity to expand from basic 'how to' instruction into the more cognitive aspects of information literacy such as evaluation of sources. It has the additional advantage of being a 'real life' situation, allowing an individual to see the applicability of information literacy skills in solving 'real life' information problems.

3. Partnerships

Information literacy is a skill required throughout life. It has been shown that information literacy skills are cumulatively acquired – the more exposure an individual has to the elements of information literacy and the more opportunities to put these into practice, the greater the likelihood of information literacy being achieved (Brottman 1990, p. 4). Partnerships are viewed as being

one way of ensuring citizens receive instruction throughout life rather than only when engaged in formal study (Loomis 1995, p. 131). In fact, many assert that partnerships are both essential and the best way for public libraries to approach information literacy development and an increase in interest in collaborative efforts between institutions is emerging (Brown 2003, p. 262, 265; Curran 1993, p. 261; Homann 2003, p. 210; Jehlik 2004; Johnson 2001; Johnson & Jent 2005; Kahlert 2000, p. 6; Nutefall 2003; Tosa & Long 2003, p. 14). An additional advantage of partnerships is the potential for monitoring the long-term impact of school and university programs, as public librarians have the opportunity to observe whether instruction provided during formal learning is retained and/or translated into future lifelong learning situations (Loomis 1995, p. 131).

There appears to be no dispute that the public library has a 'major part to play in collaboration with other stakeholders' (Skov 2004). Whether this is as a leader or in a more supporting role is still being debated (Crowley 1998, p. 28; Harris 2003, p. 216; Skov 2004). Partnerships take a variety of forms:

- (a) *Between public libraries and schools or academic institutions* is the most commonly advocated partnership and involves such activities as schools providing details of curriculum and assessment to public libraries to allow librarians to provide effective assignment assistance and appropriately tailored collections (Bundy 2002a, p. 48). The highly successful and award-winning partnership of Mackay West State School and Mackay City Council Library is an excellent example of how this can be accomplished for the advantage of the students (*Mackay West State School and Mackay City Council Library* 2005).
- (b) *Between public libraries and ISPs, community information providers, government entities, and private enterprise* to provide opportunities to obtain funding for programs or training for staff or the public. The Austin Public Library received funds from the Michael and Susan Dell Foundation for development of the *Wired For Youth* program (Gorman 2002, p. 2). In Europe and Western Australia, partnerships have assisted in providing information literacy training for librarians (Poustie 1999b; Virkus 2003).
- (c) *Between public libraries and individuals in the community* in utilising volunteers with specialised skills to provide training and support in areas such as computer skills. At the Noosa Branch of Sunshine Coast Libraries in Queensland this allows the library to offer needs-based,

one-on-one instruction to individuals for whom group lessons are not suitable or who require more focused assistance (Sunshine Coast Libraries 2008). This level of training would not otherwise be able to be provided with the library's current resources.

What is limiting efforts in public libraries?

While there is clearly a myriad of strengths in favour of public libraries playing a role in information literacy development and a broad range of activities in place in public libraries worldwide, the literature also reveals a number of factors limiting the efforts of public libraries.

In 1990, Connie Van Fleet, writing about adult lifelong learning and public libraries, identified four potential obstacles to public libraries' 'effective participation in lifelong learning':

- librarians' reluctance to assume a non-traditional role;
- poor public perception of the library's function;
- lack of resources; and
- the absence of an underlying philosophy to serve as a basis for coherent planning (Van Fleet 1990, p. 202).

Nearly twenty years later, these and other factors are still influencing the work of public libraries in developing information literacy. Interestingly, some of these limiting factors are the very reasons that public libraries are seen as ideal for providing information literacy instruction. However, there is evidence of efforts being made to overcome these limitations.

1. Lack of framework

In the academic and school environment, agreed upon standards and objectives (such as those developed and adopted by the Council of Australian University Librarians (CAUL) and the Association of College and Research Libraries (ACRL)) provide a framework for the design and implementation of information literacy programs. By contrast, there are no such guidelines in place for public libraries and, as outlined above, very little has been published regarding how public libraries should go about information literacy instruction yet an equal, if not higher, level of expectation and responsibility has been placed upon them (Walters 2007, p. 3). A need for a 'clearer vision and blueprint' exists (Edzan & Saad 2005, p. 97).

2. Resources

Public libraries have faced significant budget challenges in recent years and can only accomplish so much within their financial constraints. Information literacy programs are restricted in large part due to insufficient staffing, space constraints, and lack of facilities, equipment, resources, and retrieval tools (Crowley 1998, p. 28; Hart 2006, p. 48; Hernandez 2003, p. 345; Homann 2003, p. 311; Koning 2001, p. 163; Kurbanoglu 2004, p. 26).

3. Attitudes and beliefs

Subjective attributes such as staff and client attitudes and beliefs have a dramatic effect on the implementation and effectiveness of information literacy training (Hart 2006, p. 48).

- (a) *Understanding of information literacy*: with the library and information industry having had so much influence over the information literacy movement, it could be expected that all librarians are advocates. Unfortunately, this is not true and many librarians, especially public librarians, may be the least able spokespersons (Curran 1993, p. 259). A lack of understanding and knowledge of information literacy concepts by librarians and other stakeholders was noted by Bruce & Lampson (2002, p. 102) in their study of librarians' attitudes towards information literacy. Additionally, there is a tendency by librarians to view information literacy very narrowly as the teaching of information searching skills and use it as an 'umbrella term' for a large array of library activities such as user education and library orientation (Skov 2004, p. 1).
- (b) *Staff*: it has been observed that people will only interact with information in a way that suits their value system and it is essential that librarians adapt to the ways clients think about and value information (Curran 1991, p. 40–42; Doherty & Ketchner 2005; Harris 2003, p. 216). There has been a tendency amongst librarians to allow the client to be in control of interactions and for librarians not to impose a judgment on the value of information located; however, information literacy requires librarians to evaluate information or encourage clients to do so (Bruce & Lampson 2002, p. 103; Harris 2003, p. 216). Others see that 'librarians must surrender authority in order to empower patrons' (Doherty & Ketchner 2005).

Additionally, although libraries have historically been viewed as educational institutions, librarians often do not see themselves as or want to be teachers and thus there needs to be a 'shift in conceptions of educational role of public libraries' (Bruce & Lampson 2002; Hart 2006, p. 48).

- (c) *Public*: if the public do not recognise and accept the public library as a provider of information literacy skills training and are not aware of the availability of information literacy programs, it is impossible for libraries to fulfill their role (Curran 1991, p. 44).
- (d) *Government and industry bodies*: more support and acknowledgement is needed from governments, business and educational administrators with respect to public libraries' role in information literacy education (Koning 2001, p. 163; Whitehead & Quinlan 2002, p. 14).

4. Client base

Although the public library is presented as reaching the entire community, in fact only those segments who are or who become library users are reached (Curran 1991, p. 43). Additionally, a diverse client base – from newborns to elderly, illiterate to highly educated, with different learning styles and attitudes – poses challenges in providing programs suitable for all clients; thus it is easier and more effective to offer programs tailored to specific groups (Burrell 1999, p. 2; Jackson 1995, p. 37). Thuringowa Library¹ in Queensland attempts to reach non-library users via its weekly column in the local newspaper (*Townsville Bulletin* December 20, 2004, p. 9).

5. Nature of the public library

The public library functions to serve community needs and demands and, to a large extent, the services provided are driven by its community (Woods, Burns & Barr 1990, p. 49). Although Spitzer, Eisenberg & Lowe (1998, p. 224) believe that public libraries are one place where an increase in information literacy efforts can and will take place, this is likely to happen more as a function of public demand than library initiative.

2 Now a branch of Townsville City Council Libraries as a result of recent local government amalgamations in Queensland.

6. Training/skills

The skills of teaching are not routinely taught to librarians in the course of their professional education (Bruce & Lampson 2002, p. 103; Homann 2003, p. 311). Information professionals working in public libraries as information literacy instructors need to be trained and updated in teaching and learning techniques to be effective and to be comfortable in their new role (Das & Lal 2006, p. 9; Hernandez 2003, p. 345). Additionally, staff require support to develop their own information literacy competencies and training in use of new information sources (Das & Lal 2006, p. 9; Gehrig 1995, p. 37; Koning 2001, p. 163; Poustie 1999a, p. 8). In Europe, the *DELCIS: Distance Education for Librarians: Creating an Information-Competent Society* project aimed to provide information literacy training to librarians in Latvia and Lithuania (Virkus 2003). Similarly, the City of Stirling library in Western Australia partnered with the Internet Training Institute of Australia to provide training to library staff in use of the Internet and in teaching these skills to the public (Poustie 1999b, p. 16).

7. Assessment

Public libraries are outcome driven and need to be able to measure the impact of services offered in order to justify the continuation of the service. With very little basis developed upon which to formally assess information literacy competencies, it is difficult to determine whether programs should be continued, modified or expanded (Whitehead & Quinlan 2002, p. 14). Some suggest that simply the number of people attending classes and programs would be a solid indicator (Himmell & Wilson 1998, p. 110).

8. Promotion

Library staff are generally not trained or proficient in marketing activities and, particularly when trying to advertise instruction programs outside the library and reach non-library users, libraries face a challenge (Bruce & Lampson 2002, p. 81; Crowley 1998, p. 28). This is key if libraries are to fulfill the expectation of reaching the broader community.

9. Cultural factors

In some countries, cultural factors are impacting on the work of public libraries, although this is not evident in Australia.

- (a) *South Africa*: the lingering affects of apartheid continue to impact on the quality of library services and, in turn, the range of programs that can be offered (Hart 2006, p. 48).
- (b) *Spain*: culture and especially libraries suffered under the rule of Franco and school libraries are still uncommon. Public libraries are considered the main resource for students; however, the students' use of the public library is seen as a problem by librarians and very little cooperation is taking place between librarians and teaching staff (Hernandez 2003, p. 340–41). In combination with traditional teaching methods in Spain this has contributed to a general lack of interest in the use of libraries (Hernandez 2003, p. 341). Once again, attitudes and awareness of staff and users need to be modified before public libraries can make progress.
- (c) *Turkey*: Kurbanoglu (2004, p. 26) indicates that quite simply Turkish libraries are not equipped with the resources necessary to provide information literacy training.

Conclusion

Although there has been much debate over the definition of information literacy, it is widely held that it is a vital skill for life in the 21st century. The information profession has been at the forefront of the information literacy movement and public libraries, with their diverse client base and lifelong contact with members, are seen as being ideally positioned to lead the way in developing information literate communities. Unfortunately, little guidance has been given to public libraries as to how they should go about this lofty task, with a notable dearth of literature on the subject.

Despite this, there is sufficient published material to provide clear evidence that public libraries *are* actively and creatively meeting the challenge presented to them with respect to information literacy development. Public libraries have found a balance between professional ideals, public demand, and available resources. They are capitalising on their strengths and opportunities and working within the boundaries of existing limitations. The challenge now is to determine whether current programs are sufficient to meet community information literacy needs, and if not, how to remove the obstacles and pave the way for public libraries to increase their efforts in supporting the development of information literacy in their communities.

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ESL Library Skills: an information literacy program for adults with low levels of English literacy

Katrina Macdonald

This paper introduces the ESL Information Literacy Project (ESLILP) at the University of Ballarat. It describes the development, implementation and evaluation of a library orientation course designed in a TAFE context for adult, non-academic students who speak English as a Second Language (ESL). The paper seeks to raise awareness of an apparent lack of research and information literacy programs for adult ESL speakers in a non-academic environment. It also offers a framework for developing information literacy education programs for people with very low levels of literacy. The framework may be of particular use to librarians working in this area with limited backgrounds in ESL teaching or practical resources. The paper concludes by inviting other libraries to trial the ESL Library Skills course.

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Introduction

An increasing proportion of students at the dual-sector University of Ballarat (UB) come from non-English speaking backgrounds, posing considerable challenges to the acquisition of information literacy. The majority are enrolled in academic courses through the Higher Education sector. However, the TAFE sector caters to a growing cohort of migrants and refugees with low levels of English literacy who undertake tuition in English as a Second Language (ESL) through the Certificate in Spoken and Written English (CSWE). The CSWE has potential to impact positively on the local migrant and refugee community as students take home and share their newly acquired knowledge with their network of family members and friends. As a TAFE-delivered course, it provides a pathway connecting basic English tuition with higher education and vocational training. In addition to literacy and numeracy skills, CSWE students also have

the opportunity to learn about Australian culture, customs and societal systems such as education and employment. The CSWE course may be summed up as an important factor in helping migrants and refugees prepare to join mainstream society; for example as members of the workforce, citizenry, higher-level student communities and as informed elders of first generation Australians.

To better respond to the education needs of ESL students, the SMB Campus Library (the 'Library') and the Department of Humanities and Further Education collaborated in the ESL Information Literacy Project (ESLILP). The ESLILP sought to identify and resolve resource gaps in order to develop a collection of library materials suitable for adult ESL learners, and to enable migrant and refugee students to become effective library users through an ESL Library Skills course embedded into the curriculum of the CSWE Level 2. The ESLILP demonstrated that establishing confident relationships with ESL students and teachers results in an engaged group of valuable contributors to the shaping of the Library's collections and services. In addition, close interaction with the ESL students provided valuable opportunities for Library staff to develop an appreciation of the rich multiculturalism of the ESL student cohort.

The process of searching for similar library orientation programs designed specifically for adult ESL learners in a non-academic environment revealed a lack of resources. Dame (1993, p. 5) states:

The development of skills in using the library and its resources is an essential part of learning English. Non-native English speakers may have an even greater need for library skills than native speakers ... [and] may need information that native speakers take for granted. ESL students must be given the tools that will enable them to succeed in [their new country's] education system.

However, many TAFE librarians are required to provide information literacy education for people with low levels of literacy without the benefit of a background in ESL teaching or practical resources to use as a framework for program development. This paper focuses on the development and implementation of the ESL Library Skills course and the outcomes of the program evaluation. It offers the ESL Library Skills course as a strategy to empower information literacy librarians who serve a similar ESL client base.

Introducing the ESLILP

Given that information literacy is 'a prerequisite for participating effectively in the information society, and is part of the basic human right of lifelong learning' (Horton, 2007, p. 63), it is concerning to know that the

'Australian Bureau of Statistics show[s] not surprisingly ... those with English as a second language are more likely to have poor to very poor information literacy' (Govan, 2003). Furthermore,

the very people who most need the empowerment inherent in being information literate are the least likely to have learning experiences which will promote these abilities ... people with English as a second language ... are among those most likely to lack access to the information that can improve their situations. Most are not even aware of the potential help that is available to them. Libraries, which provide the best access point to information for most ... citizens, are left untapped by those who most need help to improve their quality of life (American Library Association, 1989).

The Australian Government Department of Immigration and Citizenship advises that

to take part fully in Australian life you will need to speak and understand some English. Without English, you will find it difficult to get a job and become independent. English is also needed if you wish to become an Australian citizen (Department of Immigration and Citizenship, 2008).

Adult migrants and refugees resettling in Australia under a permanent (or sometimes provisional) visa who speak little or no English may be eligible to enrol in the Australian Migrant English Program (AMEP). The AMEP currently allows up to 510 hours of government funded English tuition (although additional tuition may be extended to participants with special needs, such as learning disabilities resultant of pre-migration experiences of torture and trauma) (Department of Immigration and Citizenship, 2008). This allotment is regarded by many as inadequate to equip them to function as language and information literate members of the community (African Think Tank Inc., 2007, p. 21).

Fisher, Durance & Hinton (2004, p. 764) state:

a successful introduction to the library – to its mission, programming, and staff – leads immigrants to a fertile and synergistic information ground that can assist in supporting their broad spectrum of psychological, social, and practical needs ... librarians must use their information services to facilitate social interaction.

Providing a safe and comfortable environment and equitable access for users with special needs is at the heart of the Library's Client Charter (University of Ballarat Library, 2007). However, prior to the ESLILP, the students from non-English speaking backgrounds enrolled in the AMEP had not been specifically engaged with or adequately catered for by the Library. Library support for UB students from countries other than Australia had focused on the commercial, international cohort in the higher education sector.

The inception of the ESLILP provided an opportunity to address the needs of this underrepresented group and was developed from the perspective that information literacy education has the potential to have an enormous impact on positive resettlement.

Embedding information literacy into the curriculum has not been a key part of the Library's Information Literacy Program in the past, mostly due to a lack of staff resources. The ESLILP promoted: the value of including information literacy into a curriculum; the connection between student engagement with the Library and success of their study experiences; and the positive results of effective liaison between librarians and teaching staff, both within the ESL department and the wider UB teaching community. The ESLILP also presented a valuable opportunity to explore innovative teaching approaches, such as reducing teacher-talk while retaining crucial content, and enabling students to use the Dewey system in spite of low numeracy skills.

Finally, the lack of practical resources available to librarians who teach information literacy to adult students with low levels of English literacy raised two issues. First, information literacy classes tailored for these particular students are occurring in isolation with duplication at other institutions due to a lack of resource sharing, and secondly, such programs are not being offered at all. While designed in the context of the SMB Campus Library, the ESLILP was developed as a resource with potential for use in other libraries.

Review of existing ESL library orientation programs

The needs of international students undertaking academic courses are subject to much analysis in information literacy research. However, our searches for information literacy programs similar to the ESL Library Skills course that could be adapted for use in an adult, non-academic, low literacy context were unsuccessful. Beyond general theory of teaching students from non-English speaking backgrounds, research pertaining to international academic students was not considered relevant to the ESLILP due to the severely limiting effect illiteracy can have on the capacity for study at a tertiary or vocational level. Community college libraries in both Australia and overseas cater to ESL students with a wide range of English literacy abilities, some of which have collaborations between their libraries and ESL departments. However, much of the focus appears to be on developing critical and

information literacy skills to aid transition to higher education, such as the Glendale Community College ESL Information Literacy Infusion Program (Camp et al., 2005) or the Bellevue Community College Library Media Center's Critical Thinking & Information Literacy Across the Curriculum program (Bellevue Community College, 2004).

The ESL Information Literacy program at Pima Community College (PCC) in Tucson, Arizona, is the result of collaboration between the library and ESL faculty (Prucha, Stout & Jurkowitz, 2005). The program was developed as a matrix connecting information literacy skills with learning outcomes for five levels of ESL, from Basic through to Academic Preparation streams. Similar to the ESL Library Skills course, the classes are taught by library staff in the presence of the students' ESL teacher, to ensure students feel secure while empowering the teacher's information literacy knowledgebase (p. 24). The Introduction to Libraries for ESL Students class outline (p. 29) suggests that PCC ESL students in the Basic stream may have higher literacy levels than most CSWE Level 2 students who participated in the ESL Library Skills pilot. The sample class outline covers far more information than the content of individual ESL Library Skills classes. However, the PCC program may have great benefit in further developments in the ESLILP.

The program that compares most closely to the ESLILP is the collaboration between the Shepparton Public Library and the AMEP course at Goulburn Ovens Institute of TAFE in Victoria. This liaison program, developed by a part time project officer who is herself a new immigrant, began in 2007 with social events and conversation classes as means of introducing in a meaningful way immigrant and refugee resettlers to the Library. The Shepparton and UB programs are similar in some aspects. Previous one-off library orientation and instruction sessions proved inadequate, especially for newly resettled migrants and refugees for whom the Library is a new concept and environment. As a result, each adopted a systematic approach to embed library orientation and information literacy into the TAFE-delivered AMEP curriculum. The programs cater to a similarly mixed range of literacy levels, including students from oral traditions and those with some experience in non-English academic environments. Both libraries share a value of being a place of English improvement, regardless of eligibility for government funded English tuition (for example, by educating students about the resources they can borrow to assist their families learn English). Perhaps most significantly for the purpose of this paper is the fact that both programs were developed without awareness

of the other's existence. Furthermore, both programs were motivated by the awareness that more can be achieved to improve the lives of immigrants and refugees through collaboration, rather than separate initiatives being scattered in different directions (S. Jayasundera, personal communication, January 31, 2008).

Public libraries throughout the world provide programs for ESL members of the community. Depending on community needs and available resources, ESL programs may vary from providing a welcoming space for external ESL programs to hosting holistic programs of a cultural, educational or informational nature (Larsen, Jacobs & van Vlimmeren, 2003, p. 17). The building of collaborative networks across public libraries to share resources and staff expertise has become 'widespread in serving multi-cultural communities ... To [Larsen, Jacobs & van Vlimmeren's] point of view, there is no alternative for libraries facing the complex task of serving multicultural neighborhoods than to take active part in networking activities' (2003, pp. 27–28). Literature searches and enquiries made to public libraries about library instruction courses similar to the ESLILP proved unsuccessful.

Research into ESL-focussed information literacy programs in primary and secondary schools provided good lessons for developing programs for adult ESL learners. For example, the literature highlights the importance of strategic collaboration within the organisation (Dennis, 2001) in order to establish the library as a safe and welcoming place in which to foster ESL development (Dame, 1995). The school librarian is also recognised as having a professional duty and role in the ESL learner's development of self-confidence in the educational context, stimulation of intellectual curiosity and desire for lifelong learning (Brown, 2006). Our searches for specific courses similar to the ESLILP that could be adapted for use outside specific schools were again unsuccessful.

ESL Library Skills pilot

The overarching goal of the ESLILP is to introduce and foster information literacy as a pathway to lifelong learning, as defined by the American Library Association and adopted for the *Australian and New Zealand Information Literacy Framework (ANZIIL Framework)* (Bundy, 2004). The *ANZIIL Framework* formed the guide for the development of the ESLILP and its objectives:

- Students should have a place where they feel comfortable and safe, and have the opportunity and support to succeed.
- Male refugee students, who have often experienced an extreme loss of status in resettling, should be able to reclaim their dignity.

- Students may develop knowledge of western education approaches, to build confidence to pursue further education and training, and to support their children in their own education.
- Students recognise that they have the power to shape the Library service through their feedback and resource requests.

The ESL Library Skills course was progressively developed and delivered by the Information Literacy Librarian and an independent Project Coordinator whose professional background included ESL teaching. The core group were twelve students from Azerbaijan, Bosnia, China, Korea, Singapore, Sudan and Thailand. (The needs of the Sudanese refugee students were of particular, although informal, interest to the Project; they were the original target group in the inception stage of the pilot.) The group also included a wide variety of education backgrounds, ranging from participants from oral traditions (illiterate in their own languages) to a PhD graduate; the majority was in the low-to-medium native literacy level. Some students were very reticent at first; the male refugees in particular displayed significant signs of anxiety, such as distrusting body language and clinging to their belongings at all times.

The students' ESL teacher (who is also the Head of the AMEP Program at UB) attended the sessions as a participant. In this capacity, he was better able to interact with and observe the students, assess the presenters' grading of language and skill development, and consider the integration of information literacy and ESL skills. Each session also involved the participation of a different member of the Library staff. Like the ESL teacher, the attending staff member generally participated in the session as a student rather than in a teaching/support role. This approach provided opportunities to develop student/staff rapport. In addition, it increased opportunities for Library staff to build awareness of the students' information literacy, resource and cultural needs.

The course design integrated the *ANZIIL Framework* and ESL methodologies (Haynes, 2007, p. 4). It consisted of ten units structured for progressive skill development, but which could also be delivered as individual sessions. The pilot course was delivered during Term 2, 2007. Sessions were held in the reading area of the Library, featuring 180 degree views over the city surrounds and 180 degree views of the monograph and periodicals collections. This location was chosen with the intention of providing a pleasant and stimulating environment for the participants. During the weekly one-hour sessions, students learnt about a wide range of concepts, including: elements of Library items, collections and facilities, borrowing and returning, asking for help, subject areas, using call numbers, searching the catalogue and being courteous in the Library.

Students were engaged through realistically achievable activities for small groups. The activities used peer teaching and correction, allowing all students to succeed. In all but the Mid-course Revision, the sessions were consistently structured according to the following format:

- Teaching essential Library vocabulary through eliciting, modelling and drilling up to eight target lexical items (terms or phrases) related to the session (25%).
- Controlled practice of the target language in small groups with a focus on accuracy and fluency (15%).
- Library exercises in small groups, while having free practice of the target language (40%).
- Peer correction of library exercise (10%).
- Feedback (10%).

Minimising teacher-talk and creating a relaxed and often playful learning environment were central to the teaching methodologies. For example, using rhythm and intonation games to stimulate memory were particularly successful for the students from highly musical cultures. This is in contrast to the generalisation that non-Western students prefer passive teaching methods (Hughes, 2001, as cited in Hurley, Hegarty & Bolger, 2006, p. 304). Giving students opportunities to take the role of the teacher to drill their peers in a phrase was also a powerful technique in increasing self-confidence. This was particularly useful in empowering the Sudanese men, whose loss of status in becoming refugees contributed to a state of wariness and reticence at the beginning the course.

Each lesson introduced no more than eight new lexical items to minimise information overload. To aid retention of new knowledge, the students received a handout during each session, consisting of a basic illustrated glossary of the lexical items learnt during the class and a summary of lesson content. The students received a document booklet at the beginning of the course for storing these handouts. By the completion of the course, each student had a basic manual about using the Library for future reference. For many students, this represented an early addition to their domestic book collections.

The fact that library jargon was not the Project Coordinator's professional language had a positive effect on maintaining a student-centred focus. She could more easily take the perspective of 'outsider', which served well in terms of the strategy to minimise teacher-talk. She rigorously challenged the Information

Literacy Librarian to justify why certain lexical items should be included in a given lesson to the exclusion of others, and demanded refinement of definitions of those lexical items to the point where they could be realistically understood by people for whom a library is a completely new thing.

Following the positive reception of the initial ESL Library Skills course, the Library hosted a series of informal weekly, half-hour conversation classes with afternoon tea provided for the students during Term 3. These sessions evolved into weekly, hour-long conversation classes during Term 4, incorporating various strategies to stimulate conversation on a given topic (such as using flash cards as visual aids) and distribution of a simple information literacy exercise, requiring the students to find an item of their interest and answer an easy question. The Library will continue to host weekly, informal conversation classes during Term 1, 2008. An additional, multi-part course was also developed to supplement the CSWE Level 1 'English for Work' unit but was not continued. The content was not directly related to library skills; it duplicated classroom curriculum; and since the Library collection did not have topical resources suitable for students with such very low literacy levels, information finding exercises were not possible.

Sustainability was an important principle in designing a program that could adapt to circumstance, including usability beyond the UB Library context and to ensure the program survives and thrives independently of library staff turnover (Larsen, Jacobs & van Vlimmeren, 2003, p. 10). The limitations of staff duties and roles were important considerations that framed the project. For example, the library staff could teach students about appropriate conduct in the library environment, but general etiquette lessons would be presented by the ESL teachers in the classroom. Similarly, students were taught by library staff how to use the catalogue, drawing on the general computing skills taught in the classroom lab.

Collection, analysis and interpretation of data

Feedback was sought on a regular basis throughout the ESL Library Skills course. The student group was invited to give feedback at the end of most classes (for example, parts they found easy, challenging or too hard, and what they would like or dislike doing next time). This allowed opportunities to encourage trust and recognise them as active participants in the library community, as well as refine lesson planning. The Information Literacy Librarian and Project Coordinator also regularly communicated with the ESL teacher

and any library staff who may have participated in the classes. This process ensured sessions were of mutual and current relevance to all stakeholders in the ESLILP.

Feedback was also obtained during conversations with students during their visits to the Library in their personal time, including those who stayed after the class to converse with and make information enquiries of the library staff. Because most of the AMEP students have very limited free time, this was a significant indicator of the program's success in terms of the Library's importance in their lives, both as students and resettling migrants and refugees. The students have continued to visit the Library to access resources for themselves and their families. Sometimes they bring their children, to introduce them to the library staff and show them how to use the Library; this has been a significant measure of the program's success in creating a safe, welcoming and useful environment.

These interactions with the students as ESL stakeholders provided important information about how a resource collection for adult learners of Basic English should be developed (Jensen, 2002, p. 53). One exciting result of the ESLILP has been the development of an Independent Learning Centre (ILC) in the SMB Library, making available a range of fiction and non-fiction resources of various formats to not only the ESL students, but also native English speakers who want to improve their English literacy. The ILC also features two computer terminals, through which the students can access the Virtual ILC, an innovative online English language resource created by Australian Multicultural Education Services.

The *ANZIIL Framework* was applied as a key resource through which to examine the students' achievements in becoming information literate. For example, by applying his new knowledge about using the Library, a student who had an interest in becoming a nurse showed he could define and articulate an information need (Standard 1.1) by refining an initial request for information about science to a concluding request for illustrated books about parts of the body and how they work. He could also demonstrate an understanding of the purpose, scope and appropriateness of a variety of information sources (Standard 1.2) by browsing several collections before making a selection of some anatomy and physiology books to borrow. In addition, he was also able to record all pertinent citation information for future reference and retrieval (an example of Standard 4.1) of potentially useful items not borrowed that day. While these measures of success may seem simplistic in comparison to the traditional academic applications of the *ANZIIL Framework*, they were nonetheless significant in terms of relative distance travelled along the path

to information literacy. This particular student was a Sudanese refugee who had been illiterate in both English and his native language. Furthermore, it is also notable that, although he was an extremely reticent participant in the early ESL Library Skills sessions due to his experiences of physical and psychological trauma, he became one of the Library's very active users in terms of visiting, borrowing and engaging with library staff.

The UB Centre for Health Research and Practice conducted a formal and independent evaluation of the ESLILP following approval granted by the UB Ethics Committee. The evaluation sought to identify to what extent, if any, the ESLILP:

1. Contributed to the students':
 - Comfort, independence and effective use of the Library
 - Capacity to find information following an initial search for Library materials
 - Empowerment, both in their education and in their lives outside of the education system
 - Confidence in pursuing further education and / or employment.
2. Influenced the School of Further Education (ESL) in further engagement with the Library.
3. Influenced SMB library services in responding to the broadening base of TAFE students.

The evaluation was based on data collected through interviews with students and staff involved in the pilot. Students were invited to participate in a semi-structured group interview at the end of their final class. This format was adopted to allow the students to feel comfortable and confident in their familiar group environment, encouraging them to give feedback freely and to give and receive peer language assistance where necessary. This was also important to avoid any suggestion of interrogation, especially for the Sudanese refugees. The evaluators also interviewed the manager of the TAFE Library Services, the SMB Library Loans Desk Coordinator and the ESL teacher (in his capacity of course participant, Head of the ESL department and AMEP Program Coordinator at UB). Each participated in individual, semi-structured interviews, examining their perceived measures of success of the pilot program and their opinions about whether to continue and/or modify and/or expand the Project in the following year.

Student and staff participants responded enthusiastically during the interviews about the students' increased comfort and confidence in using the Library

through participation in the course and conversation classes. The evaluation found the ESLILP 'has been very successful in meeting its ... desired outcome: at the end of the Project the students in the target group can now confidently and effectively use the library independently' (University of Ballarat Centre for Health Research and Practice, 2007, p. 13). Moreover, the program was found to have had a positive impact in their personal lives, particularly in regard to helping their children. For example:

I borrow DVDs and books to be skilled to help my kids ... When I go home from school I lose some words that I learned but talk with children and watching DVD with children helps me to practice words and learn new words (ibid, p. 6).

The evaluation recommended the continuation and expansion of support for the ESLILP, highlighting the Project's capacity to enhance engagement of the School of Further Education with the Library, which in turn enhances the learning experiences of ESL students, both within their study programs and in their lives beyond the University (ibid, p. 13).

Conclusion – and an invitation to share

The ability to access and use information is a critical part of resettlement in a new country, and

by bringing library instruction in closer harmony with the language instruction methods more familiar to students, and by helping students understand that information and language skills profoundly impact both their academic success and personal lives, librarians will be doing a great service (Conteh-Morgan, 2002, p. 195)

However, many librarians do not have training or experience as ESL teachers. Developing programs to help immigrants and refugees with low levels of English literacy become independent and effective library users can be very difficult if working in isolation and without practical teacher support resources. Respondents to enquiries about similar courses spoke of ad hoc modifications of mainstream lesson plans and handouts, and a lack of organisational strategy to better respond to the needs of these students who 'are under serviced in the grand scheme of things' (V. Carter, personal correspondence, January 21, 2008).

This paper will therefore conclude with an invitation to share and collaborate. The UB Library would like to make the ESL Library Skills course available for trial in other libraries. It is not a solution to a problem on a grand scale, but seeks to offer a resource to librarians with a non-academic ESL clientele. The course has been designed to be used beyond the walls of the UB Library; a complimentary CD-ROM is available on request from the Library.

The ESLILP is an investment in the future of Ballarat and the wider community. AMEP participants have come to Ballarat specifically for education, and the ESLILP seeks to help them on the path to further study and training and contribution to the community as independent persons and elders to future generations. Through formal and informal evaluation, the students have demonstrated the success of the program: through their independent use of the Library during their free time, their engagement with the Library staff, their requests for resources they need for themselves and their families, and the self-confidence that was once unimaginable at the beginning of the program. It is important to remember that it was traumatic and violent circumstance – not their own choice – which brought many of them here. By being willing to engage in flexible alternatives to conventional teaching methodologies, the Library has helped them develop information literacy skills for life. Undoubtedly, that is an achievement of which the UB Library is very proud.

Acknowledgements

In addition to searching academic databases and the Internet, examples of programs similar to the ESLILP were also sought through enquiries distributed via enquiry forms, individually addressed emails and various e-lists (including: VATL, aliaTAFE, aliaUSERED, aliaNFOLIT and Public Libraries Australia e-lists). Direct communication with library representatives included: Bellevue Community College (USA); Caboolture Shire Public Library (Queensland); Charles Darwin University (Northern Territory); Curtin University (Western Australia); Box Hill Institute (Victoria); the Ethnic Communities Council of Queensland; Rockingham Regional Campus Community Library (Western Australia); RMIT University; Seattle Public Library (USA); Sunshine Coast TAFE (Queensland); Shepparton Public Library (Victoria); Swinburne University of Technology (Victoria); TAFE NSW - Access and General Education Curriculum Centre; TAFE NSW - Illawarra Institute; TAFE SA - English Language Services; TAFE SA – TAFEStart; TAFE Tasmania; TAFE WA; TAFE Libraries Australia; Victorian Association of TAFE Libraries; Whitehorse Public Library (Victoria); and Zayed University (United Arab Emirates). Enquiries were also made through Aesharenet, Australian Migrant Education Services, the Ballarat Migrant Resource Centre, the National Centre for Vocational Education Research, the African Resettlement in Australia Conference (Melbourne, 2007), Dr. Barry Golding from the UB School of Education (a researcher in education for learners on the fringe) and Ruth Quinn, Convenor the CAUL Information Literacy Working Party.

The author acknowledges the vision, tireless work and mentorship of the ESLILP Project Coordinator, Carmel Haynes, and the support and patience of TAFE Librarian, Nancy Lange. She would also like to thank the library professionals who provided responses to enquiries, and also Dr. Gillian Hallam, Sharon Howard and Mark Macdonald for their guidance and encouragement during the development of this paper.

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Book reviews

Information quality issues

***Challenges of Managing Information Quality in Service Organizations.* Ed. by Latif Al-Hakim. Hershey, PA: Idea Group Publishing, 2006. 319 pp. US\$79.95 soft cover ISBN 1599044218**

The subject of data or information quality has gained more attention recently as it has been realised that poor-quality data have a deleterious effect on management decision-making. This in turn results in poor customer relations and lowered organisational effectiveness. This book addresses the topic with a series of case studies. The authors either come from companies (e.g. Credit Suisse, AT&T Labs) or from academia, and they originate from the US (seven cases), with one each from Australia, Switzerland, Finland, the UK and Argentina.

There are four main parts to the book, each consisting of two or three chapters on selected aspects. The four sections are on information quality (IQ) in the healthcare industry; IQ applications in banking, real estate and the postal industry; IQ applications in database management services; IQ for research and development. There is a preface which serves as an introduction to the overall topic, though it is briefer than it should be – this is a weakness of the volume as a whole. It remains a collection of case studies, which, while useful, could have been a greater whole with more attempts made to interconnect the parts.

Chapter 8, by Stvilia, Gasser and Twidale, will be of interest to information managers because it is an empirical study of large-scale metadata harvesting using the OAI-PMH protocol. It presents some new ideas on the conceptualisation of metadata quality and is based on general ideas about information quality (fitness for use) and then applied to the specific context of metadata and how it is used. This is highly relevant to the developing domain of digital libraries and archives, and of institutional repositories. These can be linked by harvesting metadata, but so far we have little knowledge of how useful the metadata in a federated collection can be, considering the obvious inconsistencies that will be found in it. This method holds promise of a process that will give a better understanding of how we conceptualise metadata quality and at least some small ways of improving it.

Another chapter (by Burgess, Gray, and Fiddian) relevant to information managers is on quality measures and the information consumer. This is directed

at improving end user searching, which is achieved by giving end users a choice of the quality criteria that are most important to them. This is then used to make searches more focused on relevant search domains.

The book is moderately good value and would be useful in large LIS collections. There is a consolidated index, and each chapter lists its own bibliography.

Philip Calvert

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Top text for team leaders

Supervising and Leading Teams in ILS. By Barbara Allan. London: Facet Publishing, 2007. 204 pp. £39.95 soft cover ISBN 1856045870 (available from James Bennett Pty Ltd)

Barbara Allan introduces *Supervising and Leading Teams in ILS* as a 'practical guide for new and aspiring team leaders' with relevance also for 'experienced practitioners' seeking to refresh their approach. Her claim is well supported in the ensuing 10 chapters, with both of these target groups well catered for.

The starting point for Chapter 1 is understanding one's leadership roles and responsibilities within the organisation. Allan proceeds to consider the 21st century context of ILS, a demanding and volatile environment requiring planning, strategic thinking and innovation. This is indicative of her presuppositions in later chapters. She then charts the strategic planning process, covering PEST, SWOT, critical success factors, strategy development, change implementation and evaluation. Regular illustrative case studies and activities are employed in this chapter and throughout the book to good effect.

In Chapter 2 Allan reviews different approaches to ILS team leadership. Issues of authority, responsibility and accountability are raised. Reflection on one's current team situation is facilitated via a series of questions, such as those addressing the 'appropriate knowledge, skills and attitudes' of team members. The process of team development is then considered. The establishment and division of responsibilities between team members and their supervisor are also discussed. Allan makes some practical suggestions for airing and clarifying these and related matters in the early life of the team.

In her third chapter Allan outlines the elements of confident leadership and supervision, drawing upon the 'emotional intelligence' model and the assertiveness model. Some lengthy case studies and diagrams are used as demonstrations. Leaders' abilities as change managers are also discussed. The familiar case study is supplemented with a concise analysis of the four 'individual responses to change'; managerial strategies for supporting staff through these phases are also tabulated in a useful way.

In Chapter 4 Allan legitimately correlates motivated teams with high quality information and library service. Understanding what factors are actually motivating individual team members goes to the core of achieving this critical alignment. The author then discusses motivational theories, including Maslow's hierarchy of human needs, Herzberg's model and alternative 'process' approaches, all as a prelude to the author's extended exploration of motivating individuals within teams.

Chapter 5 commences with a consideration of the physical work environment. Readers will endorse the practical importance of positive visual impacts on library visitors. Allan proceeds to categorise ILS work as 'process' or project-based. Such topics as prioritising, delegation, monitoring and managing 'blockages' or 'slippages' follow. There is an extended section on project management, and Allan also reviews the SMART approach to setting objectives, as well as monitoring and reviewing staff performance and providing feedback.

A variety of leadership communication skills is reviewed in Chapter 6. Allan asserts that team leaders should determine the appropriate communication methods for their team. One of her tables arrays the alternatives of 'information', 'audience' and 'most appropriate media'. Communicating with the team may be enhanced through the insights offered by 'convincer' preference models and 'neurolinguistic' programming (NLP). The latter depicts the communication process in terms of its timescale and individual preferences for taking in information (visual, audio or kinaesthetic).

In Chapter 7 she examines collaborative and multi-professional teams, the lifecycle of partnership teams and how to lead these, managing diverse teams and an awareness of their cultural dimensions. The phenomenon of virtual teams and their life stages are also considered. These are all highly topical facets of contemporary professional life. In Chapter 8, on human resource management (HRM), the core HRM elements of recruitment, induction, performance management and appraisal, disciplinary and grievance procedures are discussed in an informative way. Recent social shifts from 'the idea of

training and development' to that of 'lifelong learning and continuous professional development (CPD)' are rightly acknowledged in Chapter 9. The management of workplace learning, including the four stages of the workplace learning cycle, are identified, and e-learning is also recognised for its prominence in this context.

These are all significant features of our evolving digital era. Information and library services have leading educational missions and should be driving such initiatives in workplace learning and training. In her final chapter on personal and professional development Allan covers such subjects as time management, work-life balance, professional networks and career support.

In conclusion, *Supervising and Leading Teams in ILS* is a superior resource. The major determinants of leadership for information and library services, generic management wisdom and associated externalities are investigated meticulously, drawing upon contemporary sources supported by valuable case studies. This is a considered and practical work. Its content is presented in effective and appealing ways. The issues raised are frequently pervasive in scope, with universal application to most international organisational contexts. The centrality and relevance of libraries at this point and beyond will be contingent on such blueprints.

Michael Cullen

University of Notre Dame Australia

School librarians tackle technology

***Blogs and Bytes: ICT and the Secondary School Library.* By Marianne Bradnock. SLA Guidelines Plus. Wanborough, Swindon: School Library Association, 2007. 70 pp. £12.00 (£9.00 SLA members) soft cover ISBN 13: 9781903446416**

With ICT now a part of the core curriculum in most Western nations, secondary school librarians should ensure that they have a role to play in their school's ICT strategy. Although each school will define its individual strategy, it is important that school librarians play an active role in this, whatever its form. To help achieve this, this manual from the School Library Association (UK) presents guidelines and suggestions for the ICT tools, skills and services for 21st century school librarians and the strategies to move towards making these a reality.

The School Library and ICT briefly outlines where the school librarian stands in a school IT strategy. This is followed by an overview of ICT provision in the library and how it should be equipped for staff, students, specific purposes, peripherals and more. It also considers how this equipment should be paid for and managed.

ICT to Support Professional Practice investigates library management systems, the use of ICT in resource selection, ICT as an administration tool and as a promotion tool – here the library website and Web 2.0 tools are considered. *ICT for Professional Development* looks at how librarians can use websites, and Web 2.0 tools for keeping current.

ICT to Find Information looks at how to give students best access to information and includes suggestions. *ICT to Support Learners* looks in detail at how to assess website content, with a list of eight assessment criteria. *Searching the Web* outlines how to get the best results from the Internet and includes a table on nifty Google features as well as a descriptive list of alternative search engines. The *Overview of Internet Safety* gives links to further information.

ICT for Reader Development recommends selected book-related websites, incorporating book reviews and events. *Health and Safety* reminds librarians to consider the occupational health and safety implications of ICT, plagiarism, citations, copyright and privacy. *ICT and Change* gives an overview of the implications of the introduction of ICT into the school environment. Further information is available in the form of comprehensive links and a dedicated website.

Although the manual is brief, it gives a good overview of the many issues and concerns that secondary school librarians should consider in relation to ICT in their libraries. While the content is UK-centric, there is much here for Australian school librarians who are taking on an increased ICT role in their schools. I would recommend this title as a good foundation for those who are new to school library ICT or who have little confidence in this area. It links to many useful resources for all school librarians.

Michelle McLean

Casey Cardinia Library Corporation

Making the most of today's space tomorrow

***Managing Facilities for Results.* By Cheryl Bryan for the Public Library Association. PLA Results Series. Chicago: American Library Association, 2007. 221 pp. US\$50.00 (ALA members US\$45.00) soft cover ISBN 13: 9780838909348**

This title addresses the very common challenge where new services have to be carved out of existing spaces without the luxury of additions or new buildings. It promises cost-effective solutions where budgets are tight, offers strategies for prioritising the space needs and skills for identifying appropriate locations, presenting proposals and costings in a professional way, finding resources to reallocate, delineating additional items to be purchased and assisting with decisions about professional consultants.

The first half of the book deals with examining needs, prioritising and strategic planning using model diagrams, sample library examples, tables, summary boxes and links to 'workforms' (which comprise the latter half of the book) to form a professional foundation which exemplifies clear thinking; a defined frame of reference; an analytical, strategic format; an examination of options and a strong emphasis on detailed planning. The latter half of the book is the other side of the balance: it offers 'toolkits' for calculating square footage for specific functions of the library's service, assessing physical requirements for a library's community and the (US) statutory requirements for people with disabilities. This is followed by 23 situational 'workforms' which allow tabulation of the issues involved in a large reorganisation of library space (e.g. furniture and equipment, shelving, technology, signage, spatial relationships, access, placement of activity, etc.). For each of these issues there is a written section which defines the problem, factors to be considered, instructions for completing the tables and a review process for that issue. Each of the 23 'workforms' is different, with appropriate column headings for the specific nature of the issue. The book ends with a detailed index.

The text is US-based, but many of the principles are the same everywhere in any library. The detail of the process may seem like overkill for many of the real projects within libraries, but the value of this book is that very detail. For real projects some detail could possibly be discarded in the committee discussion which will take place, but at least all the variables are exposed for consideration,

and it is quite possible that in simply articulating this detail new issues and considerations will be revealed. The sections on disability access are very specific and useful.

The first half of the book suffers from fairly long pages of unremitting text without enough breaks into subheadings or illustration, but the text is worth reading and the narrative form is easy to read. It constantly refers the reader to the 'workforms', and these allow for library-specific relevance which relieves the narrative form. If the decision-makers in libraries need assistance in reallocating space to accommodate changed functions, then this book offers a high standard of scaffolding for planning.

Heather Fisher

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New services for new immigrants

***Serving New Immigrant Communities in the Library.* By Sondra Cuban. Westport, CT: Libraries Unlimited, 2007. 255 pp. \$40.00 soft cover ISBN 13: 9781591582977 (available from DA Information Services)**

Sondra Cuban argues that serving the needs of new immigrant communities should be permanent core business for public libraries rather than an uncoordinated sequence of special projects. The policies, programmes and projects she recommends are firmly rooted in Paolo Freire's views of literacy and social justice. The text reflects thorough research: an extensive bibliography, anecdotal records drawn from her experience and interviews with immigrant clients, current statistical data and examples of best practice. Though some data on immigrant populations and funding bodies are specific to North America, the principles and general guidelines for implementation are relevant for libraries in Australia and New Zealand.

The eight chapters cover planning, assessing the needs of new immigrants in the local area, gathering resources, effective communication, changing library policies when necessary for more effective service, building multicultural collections and connecting new immigrants to learning opportunities. Principles of equity and access; the need for culturally aware, well-informed and committed library staff; and community outreach are emphasised in all chapters. Some readers may be intimidated by the magnitude of the task which

Cuban sets librarians, but examples of best practice in text boxes and anecdotal evidence of how new immigrants appreciate library services which cater for their needs indicate how rewarding the work can be.

Cuban addresses three major problems which libraries may encounter in their efforts to serve new immigrant communities well: funding, anti-immigrant sentiments in the local community and interethnic conflict. Though these issues have no easy solutions, some practicable strategies are suggested.

Examples of many of the policies, programmes and practices recommended in the text are easy to find in Australian and New Zealand libraries and library literature. Cuban's checklists for materials, activities and immigrant-friendly library hours and procedures are, however, useful as benchmarks if libraries intend to review and extend their services to new immigrant communities. The writing style is direct and clear, though some readers may be annoyed by the expert-to-novice tone.

Cuban's work is recommended for students of librarianship, librarians interested in comparative studies and/or evaluating or extending services to immigrant communities.

Lyn Linning

Brisbane

Short guide for school library space planning

Visionary Spaces: Designing and Planning a Secondary School Library.
By Geoff Dubber and Kathy Lemaire. SLA Guidelines Plus. Wanborough, Swindon: School Library Association, 2007. 62 pp. £12.00 (£9.00 SLA members) soft cover ISBN 13: 9781903446386

This slim volume is packed full of ideas to consider when planning a refurbishment or a new school library.

The first half of *Visionary Spaces* is divided into the following sections: Think Learning, Possible Community Use, New Library Thinking, Initial Planning, Resources and Zones, Interior Design, and Office and Workroom. All provide useful prompts and questions to assist in the planning and design process, while putting student learning at the forefront.

The second half of the book consists of three case studies written by librarians at the featured schools, which describe the processes they underwent in planning their libraries. The schools and their redevelopments are a mix: a new library for a Catholic school with 400 students; a new library for sixth form students and a refurbishment of the old library for a state school with 1400 students; and a new mezzanine floor information centre for senior students and a 'gallery information centre' for teaching information skills in a comprehensive school with 1800 students. Each of the case studies includes floor plans and monochrome interior photographs which are useful adjuncts to the text.

There are several appendices (Shelving and Storage, Equipment Checklist, Refurbishment Project – a Problem and Solution Checklist), a list of UK suppliers and a shortlist of further reading. A glossary of UK school terminology would have been a useful inclusion.

Although clearly aimed at the UK school library market, this is a useful guide for Australasian readers, especially if used in conjunction with *Learning for the Future: Developing Information Services in Australian Schools* (ALIA and ASLA, 2nd ed., 2001), in which the chapter 'Developing the Physical Environment' provides recommended space allocations for Australian school libraries.

Sally Murdoch

State Library of Tasmania

Guide for new school libraries

***Designing a School Library Media Center for the Future.* By Rolf Erikson and Carolyn Markuson. Chicago: American Library Association, 2007. 124 pp. US\$45.00 (ALA members US\$40.50) soft cover ISBN 13: 9780838909454**

Designing a new school library may seem like a dream come true or a nightmare, depending on the depth of experience and confidence of the teacher librarian. This book sets out to assist decision makers to, at the very least, come to grips with the host of variables which need to be considered, and at best it could offer some real advice about layouts and solutions to problems before they are encountered. Most teacher librarians will never have the experience of designing a new library, but some may be consulted when additions or alterations become necessary; and even if this never happens,

such a book as this may offer ideas for simply redesigning the interior of a library for more efficient or productive use. There is value in being informed by the experience of others, and the authors have been library project consultants for over 15 years.

The chapters cover aspects such as articulating the big picture, establishing relevant relationships in the process, having a clear plan regarding the steps which will be taken in the process, planning for technology, planning for spaces as defined by the programmes of the library, furniture and furnishing needs for the relevant school community, lighting and acoustics, signage and safety, construction and installation and some challenges of a joint use library. Within these chapters there is detailed information under clear headings – for example the furnishings chapter covers thinking widely about sources, appearance, functionality, comfort, durability, safety, sustainability, flammability, price, options for shelving, work surfaces, computer accommodation options, seating, circulation desk design, floor covering and use of colour.

Some black and white photographs support the text; these illustrate design but do not assist with colour decisions. There is no assistance with external architectural features, and though there are several floor layout plans, it would be very coincidental if these fitted the given limits of an existing or even a planned building – however, some of the methodology of the interior planning process could be useful when adapting to local needs. The text is American in perspective, so measurements are in feet and inches, suppliers are US-based and statutory requirements are American. The appendices do contain some very useful tables, and these may be worth converting to metric terms: the most useful are suggested space allocations with lists of details to be considered, shelving capacities and recommended chair and table heights. Following these are useful websites and selected readings and a detailed index.

This is a thorough treatment of the interior possibilities for school libraries (or any other kind), and it is a useful guide if planning is being undertaken to improve library services for the next generation of children and young adults.

Heather Fisher
New England Girls' School

Libraries for families

***The Family-Centered Library Handbook*. By Sandra Feinberg et al. New York: Neal-Schuman Publishers, 2007. 324 pp. US\$65.00 soft cover ISBN 13: 9781555705411 (available from DA Information Services)**

A comprehensive textbook for services to support families and to foster successful literacy and learning for children from infancy onwards, *The Family-Centered Library Handbook* offers a wide range of resources and strategies for libraries and library systems to adapt for their goals. The book is logically sequenced, beginning with preparing for family-centred services, proceeding to developing spaces and programmes for young children and parents, thence to reaching out to special audiences. The last section provides examples of professional development tools, programme curricula and surveys to ascertain needs and evaluate services. All sections reflect the depth of the authors' knowledge and their experience of successful practice.

After establishing the value and defining the characteristics of family-centred libraries, the authors discuss in detail the pertinent attitudes and skills for library staff. Enough current information on how children grow and learn and on the stages and styles of parenting is summarised to give librarians necessary insights and to justify the advice on communicating with parents and children which follows, and a substantial bibliography enables readers to explore further.

Guidelines for developing appropriate library spaces are very helpful, especially the physical environment and safety checklists. Sample programmes are interesting, including many familiar and some ideas new to me such as the 'Little Signing Hands: Baby Sign Language Program'. The resource lists reflect the North American origin of the book, but children's librarians will have no difficulty finding or creating locally appropriate local versions. General advice on managing toy collections, parents' collections and materials for children with special needs is applicable anywhere.

The special audiences considered in Part 3 are family support providers, limited-literacy and low income families, culturally diverse families, teen parent families and families with children with special needs. Some of these groups are not usually library users, so outreach strategies such as visiting different groups in a mobile van for story times and borrowing are recommended. The voice of experience gives sound advice on interacting with such groups as teen parents, acknowledging the difficulties and suggesting how to overcome them.

Librarians not working in North America should be aware that many pages are devoted to long lists of agencies, resources and distributors not applicable elsewhere. The very wide margins make the book easy to read and, if purchased as a personal working copy, could be well used for notes, adaptations and evaluative comments. The book is recommended for librarians undertaking or extending their work with families in the local community for its sound procedures, its state-of-the-art theoretical basis and the range of effective programmes and strategies it offers.

Lyn Linning
Brisbane

Curate's egg for curators

***Advances in Library Administration and Organization, Volume 24.* Ed. by Edward D Garten, Delmus E Williams and James M. Nyce. Amsterdam: Elsevier/JAI Press, 2007. 402 pp. \$99.95 hard cover ISBN 13: 9780762314102 (available from Elsevier Australia)**

As in previous volumes, Volume 24 of *Advances in Library Administration and Organization* includes a range of papers from both academics and practitioners. The aim of these volumes has been to provide an eclectic mix of contributions with the focus being, according to the editors, to convey the results of research that managers need, mixing theory and pragmatism. This current volume certainly meets the first aim – it is an eclectic mix, no question. Whether it meets the other aim of providing research that will help managers in their work is perhaps more debatable. All authors except one from South Africa are US-based.

The first paper, a comparative analysis of research publishing in LIS and education, illustrates some of the difficulties faced by publishers putting together a compilation volume. The study was undertaken in 2000, eight years ago, and while the results are unlikely to be radically different if it were repeated today, it does mean that similar research that might have been undertaken since 2000 could not be considered. This is a lengthy, in-depth contribution of 40 pages, which would have benefited significantly from the use of tables or charts to display its results rather than pure text. Its results are interesting, particularly for LIS academics, but for library managers – not so sure. This is followed by an essay on the 'library as place' – interesting, thought provoking and relevant to practitioners as well as academics. The next paper, looking at academic reference librarians and their interaction with clients, used a research

approach drawn from organisational psychology with results that may or may not be useful in the 'real world'. Another academic library paper looked at the role of the department chair in professional development of more junior staff, emphasising the role of the mentor. This was continued in a paper describing the implementation of a structured mentoring scheme in the National Library of South Africa.

Another paper dealt with the research library and, I think, about improving effectiveness. However, its use of language ('participant evaluation of topological abstraction-decomposition space representations' as the heading of one section) tends to put the general reader off. On safer ground, the next paper looked at the skills required of a library manager in today's digital environment and made various recommendations to LIS academics that would be highly relevant to those teaching in the management area. This was followed by a lengthy paper on the provision of public library services to the Hispanic population in the US and, finally, a geo-spatial study of public libraries in Calcutta.

As one would expect, any compilation volume is always going to be a bit of a mixed bag – and this is certainly no exception. It is a shame that it does not quite live up to its laudable aim of providing high quality research with a pragmatic edge. There is some interesting stuff here – but surely, it could have been better. Borrow it if you can!

Bob Pymm

Charles Sturt University

What we are, and why

***Introduction to the Library and Information Professions.* By Roger C. Greer, Robert J. Grover and Susan G. Fowler. Westport, CT: Libraries Unlimited, 2007. 194 pp. US\$60.00 soft cover ISBN13: 9781591584865**

An introduction it may be, but this is no once-over-lightly for the absolute novice or the mildly curious. Clearly intended as a textbook for students embarking on postgraduate studies, it is a detailed analysis of the library and information professions, their place in a changing society, and in particular the functions that make them effective. It could also be a useful read for anyone who for any reason needs a reorientation to the profession, and could be salutary for a

generic manager to whom professional librarians might be responsible, but who has little idea of the responsibility, implications and complexity of what they do.

Greer, Grover and Fowler are very hot on the nature of professionalism, and they sharply distinguish professionals from library technicians and other staff. Cutting through the current woolly thinking on the subject, they draw attention to the accepted characteristics of a profession – a body of knowledge, a body of literature, professional associations, a system of education, an accreditation system, and ethics – and relate these to library and information structures existing today.

The importance of theory as a basis for the understanding of community needs and for the planning of services is stressed:

...Theory is the bedrock of professional practice.... To distinguish the customized product of a professional from the efforts of a talented and well meaning lay person or technician requires the application of theory. Theory represents the body of knowledge a profession acquires over time. The acquisition may be from a variety of means, from vigorous scientific study to accumulated layers of anecdotal experiences. Its function is to provide guidance in deriving meaning from information acquired during the diagnostic process....

It is consistently emphasised that library and information services need to be designed and assessed consciously and intelligently, rather than simply being allowed to evolve.

The book's early chapters are, indeed, highly theoretical, covering such topics as the creation of knowledge, its function and value in society, and the information transfer process. Only in the later chapters is the nitty-gritty of library and information work described, and here again a 'high-level' rather than a 'hands-on' focus prevails.

Much of the subject-matter of a book like this is inherently, inescapably dry, and this one's strength lies in its comprehensiveness rather than its readability. There is a certain amount of repetition, and the index is surprisingly skimpy. This is not a book for the impatient or superficial reader, but for the person wanting or requiring a solid, serious introduction, it could be a good choice.

Barbara Frame
Dunedin Public Libraries

Understanding health librarians

Access to Medical Knowledge: Libraries, Digitization, and the Public Good.
By Frances K. Groen. Lanham, MD: Scarecrow Press, 2007. 281 pp. \$47.30 soft cover ISBN-13 9780810852723 (available from James Bennett Pty Ltd)

This book explores the underlying ethos of medical librarianship that was a major impetus in its beginnings and continues to sustain the commitment of the medical/health information professional in today's networked world. Inspired by the author's personal belief in the freely available provision of medical information to all who need it, the book was written, as the author states in the preface,

...in an attempt to understand why librarians, whether working in the healthcare environment, or in the academic milieu, make the choices they do. Are they guided by principles or values within a conceptual framework, or are they merely responding opportunistically to a variety of influences – institutional, social, technical and political?

In order to address this question, the author has researched widely across the history of medical librarianship, and some of the key issues that have impacted on it. After an initial chapter on librarians and their values, which canvasses issues related to the nature of the public good, and the commodification of information, literacy, health information literacy and scholarly communication, the book moves on to firmer ground with a substantial section titled *The Origin of Medical Librarianship*. This well-researched section covers the period from the collection of the Surgeon General's Office during the American Civil War to 1990, the eve of the revolution brought by the Internet. It focuses on North America and examines the values and developing professional beliefs that took the US to its leading role in the provision of medical information to the world. Several heroes of medicine and of medical librarianship, their vision, values and personal virtues (and sometime limitations) bring these pages to life. The emphasis throughout this section is on the values and ethics both explicit and implicit in decisions and policies made by individuals and institutions for over 130 years.

Part 3, *Medical Libraries in the Age of the Internet*, is a wide-ranging discussion of the changes in scholarly communication and access to knowledge brought by the Internet, with chapters on both consumer health information and access to information for clinicians. This leads to the fourth section, *Is There a Better Way*, in which the author discusses the changing economic basis of medical information, as complex licensing agreements both extend and restrict access, and the open access movement threatens to undermine

the economic models of the past 300 years. Some key initiatives in freeing up access to medical knowledge, in particular the open access policies of the National Institutes of Health (publishers of MEDLINE), the Public Library of Science (PLoS) and initiatives such as SciELO and HINARI, intended to bring better access to medical knowledge to the developing world are outlined, along with new initiatives in managing intellectual property rights to enhance the dissemination of knowledge. The final chapter reinforces the analysis that informs the entire book, that through its long history, in which institutions and technology have changed almost beyond recognition, and into the unknown territory of the future, the underlying ethos of providing access to medical information as a public good, has remained dominant in the profession.

So, the answer to the author's question, cited above, is perhaps *both*. Driven by a strong sense of values, and committed to providing the best service they can, health librarians have shown themselves to be quite opportunistic in taking the best that technology can offer to enhance service quality and delivery, without losing touch with their underlying values.

Detailed in its research, and driven by the author's passion for the profession of medical librarianship, and at times overtly partisan on some issues, this is a readable and illuminating history of medical librarianship, of interest to all those working in the health sector, as well as to a wider audience of information professionals.

Rowena Cullen

Victoria University of Wellington

Managing ILL – US style

***Interlibrary Loan and Document Delivery: Best Practice for Operating and Managing Interlibrary Loan Services in all Libraries.* By Lee Andrew Hilyer. Binghamton, NY: Haworth Information Press, 2006. 150 pp. US\$19.95 soft cover ISBN 0789031299 (also published as *Journal of Interlibrary Loan, Document Delivery and Electronic Reserve* 16, 1/2)**

Interlibrary loan and document delivery services are an essential part of the work of most – if not all – libraries, but there are very few books about how to manage them. One of the few authors to tackle this area is Lee Hilyer, from the University of Houston, who has previously written on managing interlibrary loan services in larger academic libraries. His latest collection aims to extend the coverage to libraries of all sizes.

The first half of the book deals with policies and processes. The copyright and legislative framework is surveyed, and policies governing interlibrary loans are discussed. The borrowing process is examined at some length, organised around a Sample Daily Timeline. The treatment of lending is shorter but presented in the same way. There is a list of useful resources for interlibrary loan librarians, which consist mainly of books and websites. The lengthy appendices reproduce the interlending codes for the United States and Texas, and give some sample templates for using the OCLC ILLiad software.

This is a basic introduction to interlending and document delivery, which may be useful for new managers or supervisors (particularly in smaller libraries) who know little about the context of the service and need to orient themselves. While it offers sample daily workflows for both borrowing and lending, it does not really address the question of what makes 'best practice' in this field – nor how to analyse and improve performance, especially in larger operations.

From an Australian perspective though, the content is far too American. Copyright, national codes, sources of supply, and even software for managing interlibrary loans are all discussed in a purely American context. As a result, this is one how-to-do-it book which is not going to be of much practical use in an Australian setting.

Toby Burrows

University of Western Australia

Computers and connecting with young adults

***Get Connected: Tech Programs for Teens.* By RoseMary Honnold for the Young Adult Library Services Association. New York: Neal-Schuman Publishers, 2007. 149 pp. US\$45.00 soft cover ISBN13: 9781555706135 (available from DA Information Services)**

Educational and recreational programmes to attract young adults into public libraries and ways of improving the library's Web presence in the high technology world they inhabit are the main concerns of this concise, inspiring book. Computers, film and video are the initial focus of all the programmes, especially the launching and culminating events. However, the aims and sometimes the results involve the whole range of library

resources, services and activities. The three parts cover applications for recreation, education and constructive social networking respectively.

Part 1, *Get Connected for Fun*, begins with a chapter on games and gaming in the library and features such internationally popular programmes as Runescape, Stepmania and Soul Calibur 11. Young adults attend 'parties' in the library to participate and encounter book displays and bibliographies of gaming programs in the process. The next chapter outlines ways in which, working with young adults, library staff can design parts of the library's website and use social networking sites such as *MySpace* to establish and maintain contact with teenagers. Ways of promoting and circulating audio books, music and MP3s are then discussed, with examples of effective events and programmes using these resources. Technological terms and materials which may be unfamiliar to librarians not versed in current young adult culture are clearly defined in context.

The education-oriented chapters follow established library practices: the provision of online homework help pages and email reference services; access to and instruction in the use of online databases; workshops on how to make the most of computer programs, digital video cameras and publishing software; and partnerships with schools and colleges for best learning outcomes. Some innovative activities include workshops and support for young adults to create their own games over a three-month period, and a digital art competition.

Get Connected argues strongly for the constructive use of online social and cultural networks in spite of the perceived risks of teenagers making undesirable contacts. Ideas for schools and public libraries to use *MySpace* are particularly interesting, because the readers can easily see the evidence of successful projects on the site. The appendices address some points which librarians may perceive as barriers to implementing the kinds of programmes described. Appendices B and C offer interpretations of the (American) Library Bill of Rights to young adults' access to nonprint materials, electronic information, services and networks. Emphasis is on facilitating responsible use, not restricting access for 'protection'. Community consultation is necessary when such liberal ideals are not congruent with current national, state and local policies for young people's use of information technologies.

Many librarians have contributed outlines of their work to *Get Connected*, and the resulting range of activities ensures that most young adult librarians will find some appealing, practicable ideas. Budgets, technical tips and helpful forms are included with each programme. Recommended reading

(much of which is accessible online) is provided at the end of the relevant section. Further inspiration comes from accessing the websites of contributors' libraries.

This is a lively, readable and thought-provoking text for librarians interested in their young adult clientele and is recommended for those working with such clients.

Lyn Linning

Brisbane

Welcome guide to library competitions

***Library Contests: A How-To-Do-It Manual.* By Kathleen R.T. Imhoff and Ruthie Maslim. *How-to-Do-It Manuals for Libraries*, 152. New York: Neal-Schuman Publishers, 2007. 181 pp. \$55.00 soft cover ISBN 13: 9781555705596 (available from DA Information Services)**

Library Contests: A How-to-do-it Manual is one in a series of library public relations handbooks published by Neal-Schuman and covers all aspects of planning, implementing and evaluating library contests. The volume contains many helpful ideas for creating competitions and includes practical 'tip' boxes at regular intervals, as well as handy checklists, sample letters, entry guidelines and sample certificates. Chapter 10 describes four contests in detail from planning and scheduling to selecting prizes, promotion and evaluation. Examples include the straightforward colouring contests and guessing competitions to the quirky 'create a clothing accessory from duct tape' contest. These descriptions help to illustrate the steps in the process and serve to make readers keen to create their own contests.

Having conducted a number of library competitions personally (with mixed results), I was eagerly looking forward to receiving this book to review, and I was not disappointed. This helpful guidebook will be well received by librarians lacking marketing skills who are required to create imaginative and popular library contests. The large format paperback has a pleasing appearance with wide side margins that could be used to add pencil notations. The book includes a short bibliography and resources list, along with a detailed index.

This is a unique publication as there has been little published on the topic of library contests. This book is aimed primarily at public libraries, yet the ideas could be adapted for university and TAFE colleges. The authors, Kathleen Imhoff

and Ruthie Maslim, both have a range of experiences as educators and writers and are currently employed at Lexington Public Library, Kentucky. They provide practical advice and ideas that appear uncomplicated and simple to implement. This volume is easy to read, full of entertaining ideas and covers most aspects of the topic. I recommend this title to librarians seeking innovative ideas for successful library contests.

Kay Neville

TAFE New South Wales

Guide to research on almost everything

***Research within the Disciplines: Foundations for Reference and Library Instruction.* By Peggy Keeran et al. Lanham, MD: Scarecrow Press, 2007. 280 pp. US\$35.00 soft cover ISBN 13: 9780810856882 (available from James Bennett Pty Ltd)**

What do reference and instruction librarians need to know about the different disciplines within which they are working? This volume brings together the expertise of nine authors, each with substantial expertise in their area.

Chapters 1–3 focus on the humanities, with a chapter each devoted to music and history. Chapters 4–6 examine research in the social sciences and business, with the last chapter in that group giving special attention to government documents. Chapters 7 and 8 focus on the sciences and engineering. Chapter 9 discusses the integration of library instruction into the curriculum. Chapter 10 explores interdisciplinary research.

Each chapter blends discussions about the character of the discipline and research in that discipline with extensive material on the research resources supported by libraries and used within that discipline. Where supporting research is available, the authors include useful and interesting insights into the information behaviour of both students and their expert counterparts.

As may be expected, there is a slight US orientation in the writing, which is strongest in the chapters on government documents and business research. This is nevertheless an extremely useful title for any library or for a reference librarian's personal collection.

Christine Bruce

Queensland University of Technology

Books and connecting with young adults

***Best Books for Young Adults*. 3rd ed. Ed. by Holly Koelling. Young Adult Library Services Association. Chicago: American Library Association, 2007. 346 pp. US\$42.00 (ALA members US\$37.80) soft cover ISBN 13: 9780838935699**

The fraternity of teachers and librarians responsible for young adult (YA) services may well ask why they should read a book which is produced in the US, focuses on American YA literature, evaluates these publications and endorses US values. The answer is that this book is a fascinating read because it offers a methodology, a method of thinking, a scaffold for evaluation and critical thinking about YA literature, which does not have an equivalent in Australia. *Viewpoint* goes close in small doses per issue, but for wide coverage of the field in one readable volume, Koelling has much to offer practitioners in Australia and New Zealand.

The history and parameters relating to the 'best books' lists since the 1930s is interesting, but much more relevant to the Australian/NZ scene is the critical analysis of the lists since 2000. This analysis runs through the characteristics of the lists, the composition of the lists by genre proportions, the trends in formats and the commonality of titles with other lists and awards. This is followed by a riveting overview of the current trends in teen publishing, as they have affected the books in the 'best books' lists. These 50 pages alone are worth reading.

The book goes on to offer a vibrant view of current YA literature, a discussion of the close relationship between teen and adult reading and vice versa, and the feminisation of teen literature – books featuring strong, intelligent, courageous, quirky, artistic, determined, independent, resilient and witty, fast-thinking females. The issues are not greatly different from the past, but the difference lies in how the adolescent protagonists perceive and handle the issues.

International authors, including Australians, are increasingly published in the US, so they appear on the lists, and their contribution is applauded. New formats of the verse novel, diaries and mixes of narrative/verse/script/monologue/dialogue are in the new experimental zone, and the growing sophistication of the graphic novel receives serious recognition. The author thoroughly examines the wide range of realistic fiction available, listing and analysing 12 separate themes e.g., ethnicity, family crises, family variations, sexual identity, etc., while fantasy, science fiction, mysteries and humour are also intelligently discussed. Nonfiction for recreational reading is seriously treated and analysed in terms of volume, variety, quality, breadth and depth. All of these sections are full of title and author examples to illustrate a point.

Annotated title lists of themes (2000–2006), alphabetical lists by author of the 'best books' (1966–2007) and a detailed index of all titles and authors complement the text.

While this title is obviously American in perspective, there is much to hold the interest of the Australian/NZ library professional, and the depth of analysis, with accompanying graphs and statistical data, offers insights which go well beyond national boundaries.

Heather Fisher

New England Girls' School

Learning by Guided Inquiry

***Guided Inquiry: Learning in the 21st Century [School].* By Carol C. Kuhlthau, Leslie K. Maniotes and Ann K. Caspari. Westport, CT: Libraries Unlimited, 2007. 188 pp. US\$40.00 soft cover ISBN 13: 9781591584353 (CIP data adds 'School' to title)**

Known internationally for her research on the information search process (ISP), Kuhlthau has joined with her two daughters, drawing on their combined conversations as educators sharing their passion for thinking about teaching, learning and best practice, to create a valuable resource for those interested in employing Guided Inquiry in their classroom.

The authors note that all too often the school curriculum seems unrelated to students' real-world experiences. In order to prepare students adequately for the 21st century, educators need to develop programmes that will enable students to practise the skills of adapting and contributing in a rapidly-changing, information-rich world. Rather than impose artificial research assignments, Kuhlthau suggests providing open-ended topics, arising directly from the subject areas of the curriculum, to initiate inquiry that is based on authentic research and will be engaging and motivating to the students as they construct their own deep understanding of a specific area of interest. This is not suggesting that random topics be investigated by the students. By employing the backward design process where teachers are encouraged to 'first identify the desired learning outcomes' and work backward to 'determine what is acceptable evidence' before 'planning learning experiences and instruction', students will be exposed to the benefits of Guided Inquiry as they simultaneously learn curriculum content, information literacy, learning strategies, literacy competence and social skills.

An instructional team of experts (including the classroom teacher and a combination of any or all of the following: teacher librarian, subject experts, literacy support staff) plans the guided inquiry so that lifelong learning skills are developed. Independence is encouraged, with teachers offering advice and guidance. However, 'zones of intervention' (critical points at which the student/s cannot move forward on their own) are used to teach new skills to class groups, small groups and individuals. When students become aware of the stages in the inquiry process, they are led to discover that inquiry involves more than selecting a topic, collecting facts and reporting. It includes reading, reflecting, questioning and exploring to construct meaningful knowledge.

'Guided Inquiry is not a package that you can apply indiscriminately but rather an approach to learning that is creative for the teacher as well as the students.' It does take careful planning and monitoring (based on continual assessment and evaluation throughout a unit of work), but by connecting to the students' world and developing information literacy through guided inquiry that is based on the constructivist theory of learning, students become engaged in meaningful lifelong learning. Although I found some sections of the book repetitive, I would recommend this text as a useful resource for junior and middle school teachers wishing to instigate Guided Inquiry in their classrooms.

Helen Nitschke

Unity College

Digital issues: archives, libraries, digitisation, usability and preservation

***Archives and the Digital Library*. Ed. by William E. Landis and Robin L. Chandler. Binghamton, NY: Haworth Information Press, 2007. 270 pp. US\$65.00 soft cover ISBN 978078903438 (also published as *Journal of Archival Organization* 4, 1/2)**

The title of this collection of papers raises an interesting question about terminology. Why do archivists refer to digital *libraries*, and why do librarians establish digital *archives*? Perhaps it reflects blurred and changing notions of areas of responsibility, or just signals that life is very different when it comes to managing digital information. Regardless, archival methodologies are worthy of close attention in managing digital objects of any type, so this publication deserves attention from practitioners of both domains.

The 11 papers in this publication are grouped into three sections. The first of these is *Developing Non-licensed Content*. The papers in the first section are all

to do with aspects of digitisation. The editors note the specialist role of archives in this regard, as a source of unique content. *Usability Issues and Options for the End User* is the second section. The papers here provide details of some innovative techniques used in usability studies – an area that really deserves considerable attention from the digital library/archives communities. The nature of the enterprise means that so much data relating to the user experience can be readily gathered, but the extent to which this data is evaluated and acted upon often appears to be regarded as being of secondary priority.

The majority of papers are grouped in the final section: *Technology, Preservation and Management Issues*, which has a miscellaneous feel to it. These papers between them cover some important issues facing digital libraries/archives – preservation metadata, trusted digital repositories, digital capture of video, and the blurring of collection boundaries. The final paper, however, just does not seem to fit at all with the purpose of this particular publication. It is an update of the development of the *Archivists' Toolkit*, an open source archival data management system.

All in all, this is a useful collection of papers, any of which is likely to be of interest to those working in this domain. However, as a whole the publication lacks the coherence that the publisher's use of the word 'book' implies, despite the attempt to categorise articles.

Gillian Oliver

University of Glasgow

Carbon calling to silicon siren: challenges for research librarians

***Digital Information and Knowledge Management: New Opportunities for Research Libraries.* Ed. by Sul H. Lee. Binghamton, NY: Haworth Information Press, 2007. 117 pp. US\$50.00 soft cover ISBN 13: 9780789035660 (also published as *Journal of Library Administration* 46, 1)**

For workers in research or academic libraries, this small volume could well be the most important publication you read this year. The editor, Sul Lee, has gathered a collection of papers which together constitute a very loud wake-up call to librarians on the need to take up 'the grand challenge presented by the transition from carbon to silicon', or how to change from paper to electronic resources.

As the 'me generation' comes to demand instant access to customised information which fits their precise needs, librarians must shift their role from keepers of material to research partners and supporters. They must develop plans which concentrate on micro-marketing their products and services to specific target groups and individuals, in place of mass marketing campaigns. The strategy of basing recommendations on filed profiles or recent purchasing behaviour employed by online merchants such as Amazon suggests ways in which academic librarians can become partners in research and learning, helping clients analyse their information needs and evaluate suitable resources.

The papers in this book have been written by leaders in the field of library administration and topics include cooperative collection development, management of electronic resources and the introduction of knowledge management techniques within organisations. Libraries have traditionally been the keepers of organisational knowledge which has been formally presented or published. However, the vast amount of tacit knowledge, the knowledge shared when an expert shows the ropes to a novice, or which comes out in a mentoring situation, generally goes unrecorded. The creation of a searchable database of all company emails is one way in which this tacit knowledge could be made available to all employees to help with research and to guide decision-making in times of emergency. And there are opportunities for libraries to undertake developments such as this.

Many other such opportunities are discussed in this collection, and each paper has its own list of references or bibliography of relevant resources. There is an index of the total content, and the pages are well laid out and easy to read.

So it appears that the future for librarians in research and academic institutions lies not in a superior ability to construct Google searches, but rather in the ability to improve the users' creativity, productivity and innovation by offering active partnerships in knowledge management. *Digital Information and Knowledge Management* offers valuable insights into the various options available and approaches which may be adopted.

Helen Dunford
TAFE Tasmania

Librarians and teachers collaborate for the 5-step

***The Handy 5: Planning and Assessing Integrated Information Skills Instruction*. 2nd ed. By Shelia K. Blume et. al. Ed. by Betsy Losey. Lanham, MD: Scarecrow Press, 2007. 219 pp. + CD US\$35.00 soft cover ISBN 13: 9780810859081 (available from James Bennett Pty Ltd)**

This title offers a balance of manual instructions, a professional rationale with research evidence for teacher librarians, sets of rubrics and templates for customised use, applications to typical assignments for infant classes through to secondary years and a reference list at the end of every chapter. The targets of this publication are teacher librarians who must be involved in planning and assessing integrated information skills instruction for all grades from kindergarten to high school. The accompanying CD offers handbooks, bookmarks, recording templates, posters and a range of documentation to support the collaboration process.

The book is based on the *Kansas Five-step Model* – an information skills model for developing research skills for a range of teaching and learning from the earliest grades. It takes the process to a higher level by developing a schema to implement close collaboration between the teacher librarian and the classroom teacher in the teaching of these skills, offering numerous examples, templates for planning, sample programmes for topics and explanations, outcomes lists and evaluation recording methodologies. The standards of Kansas are also the outcomes of Australian education, and the strategies are readily identifiable with current practice in Australia.

The book has an unusual design: Part 1 explains what the Handy 5 Model is; Part 2 outlines the theoretical background and research; Part 3 gives a large number of examples of the collaboration model in practice. Most books would offer a theoretical foundation first, but this book offers the practical issue from the beginning to establish the context of the subsequent chapters.

The Handy 5 grew out of the well-known *Big 6 Problem Solving Model* of Eisenberg and Berkowitz which is widely accepted in both US and Australia, where it is commonly called 'The Information Skills Process'. Taking the six arms of *Defining* the task, *Locating* the range of resources, *Selecting* the most useful, *Organising* the information, *Presenting* the information in the required way and *Evaluating* the product and the process, the Kansas Model then condensed these to a Handy 5: Assignment (task definition), Plan of Action

(information-seeking strategy), Let's Do the Job (locating information and selecting the most useful), Product Evaluation (organising and synthesising the information) and Process Evaluation (evaluation of the whole project). This is not such a huge jump in the basic philosophy of collaboration between teachers and teacher librarians, but it is an awkward jump in Australia if readers wish to use the templates, bookmarks, posters and so on available on the CD ROM.

Through reading this book teacher librarians will be convinced of the value of the collaborative way to do things, though probably a little overwhelmed about the time it would take to collaborate. This publication explores the contemporary role of teacher librarians within a research-based pedagogy.

Heather Fisher

New England Girls' School

How to build a new library

Managing Your Library Construction Project: A Step-by-Step Guide.

By Richard C. McCarthy. Chicago: American Library Association, 2007. 172 pp.

US\$58.00 (ALA members US\$52.20) soft cover ISBN 13: 9780838909317

One of the biggest jobs for librarians is managing a library construction project. For most librarians this is an area in which they have little or no expertise and yet are required to be involved, whether this involves simple input or some level of project management. Most of us never entertained this possibility, so where do we look for help?

McCarthy is an architect with library building experience and a long-held interest in libraries, as evidenced by his long library trusteeship. He has written this book to give librarians a step-by-step guide to library construction projects, which includes advice on key responsibilities and managing the complexities of the process.

The book is divided into the stages of such a project. It includes the rationalisation for a new library building, the need, financial support, the library team and consultants. Brief sections on architects and the architectural project give an overview of when and how to involve an architect and what the process entails.

The practicalities of creating the proposed building on the required site are covered in chapters on programming, site analysis and building design.

How the library team works with the architect is also well covered here.

Chapters that follow cover construction documents, bidding and construction administration, making the project happen and keeping it on track. Post-construction covers all one would expect, including services, issues and evaluation.

The final chapters go into some of these processes in more detail, including how to find and appoint an architect, delivering the project, sustainable design and costs. The appendices includes a sample request for architectural services, and for a construction manager, advertisements for bids, punch list, programme summary and proposed scope of work.

Having only been on the receiving end of a new library building, it was quite an eye-opener for me to see more closely the processes to be followed to ensure a successful library construction project. McCarthy's guide is easy to read, covers all the bases and gives the reader a clear understanding of what to expect. From librarian-project manager to library staff consultant, there is much value in this book, which will be useful to anyone involved in a library construction project. I highly recommend this title to any librarian involved in such an endeavour.

Michelle McLean

Casey-Cardinia Library Corporation

Gaming and gamers in your library

***Gamers...in the Library?! The Why, What and How of Videogame Tournaments for All Ages.* By Eli Neiburger. Chicago: American Library Association, 2007. 178 pp. US\$42.00 (US\$37.80) soft cover ISBN 13: 9780838909447**

Gaming is a mainstream activity for all ages in our communities, and although there is much debate, it is becoming more prevalent that some sort of gaming is offered in libraries. How to make gaming work in your library is a challenge and one that Neiburger has conquered in his library. In this book he brings together his experiences and expertise on gaming in libraries.

He lays the groundwork by addressing the arguments as to why libraries should not be involved in gaming and then explaining the gaming culture and how libraries can integrate with it. He follows with a comprehensive chapter on software, hardware and 'other ware'. He explores the many different types of games, how they could be of interest to your gaming community and includes suggestions for titles. In discussing hardware, Neiburger considers each of the

gaming console options, as well as PC as the platform of choice. 'Other ware' includes accessories, cabling, televisions and more. This section concludes with information on how to work through non-traditional library suppliers in obtaining the equipment.

The following chapters outline how to make gaming work in a library.

The chapter on planning your event includes a list of questions and answers and a checklist. The discussion of promotion covers how to develop gaming events using various marketing resources, both free and costly. Setting up takes the reader step-by-step through how to connect the equipment, set up the gaming space and more. Running the tournament lays out how to run the actual event, with sample gamesheets and other helpful hints. The book concludes with a chapter on how to leverage the interest in gaming events and links to other resources.

This is a must-have title for libraries dealing with gamers. Neiburger presents a practical, how-to, FAQ-type manual which answers all but the most specific questions about the who, what, where, when, why and how of gaming in libraries. If you have electronic games in your libraries, or would like to, or plan to run gaming events, this book gives great practical advice as well as useful insight into the gaming culture. I highly recommend it to anyone interested in and/or dealing with gamers in any type of library.

Michelle McLean

Casey-Cardinia Library Corporation

History of awards for writers and illustrators of children's books

***The Newbery and Caldecott Awards: A Guide to the Medal and Honor Books, 2007 Edition.* Association for Library Service to Children. Chicago: American Library Association, 2007. 186 pp. US\$19.00 (ALA members US\$17.10) soft cover ISBN 13: 9780838935675**

This title is an annual publication from the office of the Association for Library Service to Children, a division of the American Library Association. Its publication offers a cumulative analysis of the Newbery and the Caldecott Awards since their inception in 1922 – and much more.

This 2007 version begins with two articles which make fascinating reading. The first is an explanation of the terms, definitions and criteria which apply to the awards, beginning with the Newbery in 1922 (for literary works for children) and to the changes which brought about the establishment of the Caldecott (for illustration of children's picture books) in 1938. The variables have changed over time and should be considered dynamic to reflect changing values and debate. The second article is a very readable account of the beginning of the Newbery Award and the discussion which accompanied it for the first decade of the award. It is quite surprising to read how the beginnings were so small in both organisation and impact, but from such small acorns great oaks have grown. The story makes engaging reading and establishes respect for the now globally-known process. Librarians worldwide consider the Newbery and the Caldecott books a benchmark for their collections, and the attendant media attention offers exposure to a wider audience of children's literature within the big picture of literary excellence.

The further three sections of the book are the standard sections of this annual publication: there is an annotated list of the winners and honour recipients of the Newbery Award from 1922 to 2007, an annotated list of the winners and honour books in the Caldecott Award process 1938 to 2007, and a scholarly listing of the media used in all the Caldecott winners and honour books from its inception (as far as research can establish). This latter section includes some useful definitions of artistic terms and a substantial bibliography. An index of authors and illustrators and a title index completes the volume.

Far from being an annual report, this title reaffirms the value of children's literature, and for practitioners in the world of children's and young adult literature this title provides basic knowledge. Most librarians are aware of the Newbery and the Caldecott Awards, and this title offers depth and professional development. Australia and New Zealand could well have a similar publication.

This title should be an annual read for library staff who are responsible for children's collection development and reader's advising. It offers a longitudinal perspective as well as contemporary comments on outstanding American award-winning children's books.

Heather Fisher
New England Girls' School

Evaluating electronic services

***Assessing Reference and User Services in a Digital Age*. Ed. by Eric Novotny. Binghamton, NY: Haworth Press, 2006. 236 pp. US\$24.95 soft cover ISBN 13: 9780789033505 (also published as *The Reference Librarian* 95/96)**

As libraries deliver an increasingly wider range of services to clients in the virtual environment, there is a need to develop methods for evaluating and assessing library performance in the online world. *Assessing Reference and User Services in a Digital Age* provides a range of approaches and different perspectives on evaluating these services. The book is a collection of 12 scholarly articles previously published in *The Reference Librarian* and provides a comprehensive reference for a variety of tools to use in the evaluation of reference and online library services.

The volume is divided into three main subject areas: Library Case Studies and Research Results, Standards and Methods for Evaluating Virtual Reference, and Assessing Library Instruction in an Online Environment. As such, it appeals across the library sector, with case studies from public and university libraries. The contributions are mainly from the United States, with one Canadian paper, and, while this might limit the appeal, there are significant similarities to some of the national and state online reference service initiatives that have been implemented in Australia. For example, the Oregon collaborative state-wide virtual reference project bears similarities to the National and State Libraries Australasia's *AskNow* virtual reference service.

The library case studies provide some interesting reading on the experiences of libraries with regard to a range of online services. Topics vary from collaborative 24/7 digital reference services and the benchmarking of librarian performance in chat reference to the implementation of new library systems and software. Other authors discuss the benefits of obtaining a user's perspective of the effectiveness of virtual services and the advantages of analysing chat transcripts to evaluate online reference services.

In the digital age clients have high expectations of virtual library services, and the need to develop assessment standards to measure library performance in this area has become important. A range of methodologies for assessing and evaluating digital library services, including online instruction, is presented, with useful samples of surveys and evaluation tools. While some articles focus on the differences between virtual and face-to-face services and how effectively to assess virtual reference, Kathleen Kern stresses the importance of a holistic

and integrated approach to evaluating reference services and gives details of how to plan and implement such an evaluation. Also of particular interest is the Virtual Evaluation Toolkit presented by Buff Hirko, which includes a suite of checklists to use when evaluating the library website and reference services.

There are extensive bibliographies accompanying each article, with useful references to 'best practice' guidelines for virtual services, checklists for evaluating online reference sessions and a swag of online resources. These tools will assist libraries in developing service and quality standards to evaluate their performance in the virtual environment. There is also a comprehensive index.

While the book presents a wealth of ideas for the evaluation of online services, the academic level of writing may not be particularly accessible to all information professionals. There is an assumption that the reader is currently well versed in digital reference and user services, and as such the collection provides alternatives for assessing these services. This volume requires an in-depth read rather than a quick skim in order to reap the full potential, and it would appeal to more specialised reference staff in university and state libraries. This is not a straightforward 'how-to' manual, but it is certainly a worthwhile collection of the library literature on digital assessment, bringing together a range of perspectives into one useful volume.

Troy Watson

Emergency Management Australia

Hundreds of songs for children's programmes

***Children's Jukebox: The Select Subject Guide to Children's Musical Recordings.* 2nd ed. By Rob Reid. Chicago: American Library Association, 2007. 296 pp. US\$50.00 (ALA members US\$45.00) soft cover ISBN 13: 9780838909409**

Reid has written *Children's Jukebox* for children's librarians seeking more creative content for their story times and children's programs. It aims to be a comprehensive source for children's songs with nearly 550 recordings included. This second edition includes more than 170 extra songs, although the programme ideas included in the first edition have now been published in the companion title, *Something Musical Happened at the Library*.

As it is not really practical for libraries to collect all the recordings suggested in the book, Reid has compiled a Recommended Core Collection. The 46 suggested titles would make a good basis for a musical collection for children's

programming. Reid also includes his favourite contemporary children's songs; considering his experience with children's programming and music, his suggestions are worth serious examination.

The core of the book focuses on the nearly 550 songs that Reid has personally chosen for inclusion. They are accessible through an alphabetic list of 170+ subjects and even more sub-categories. Songs are listed alphabetically by song title, with album and artist details also included. A final Resources section gives links to suppliers where the music can be obtained and also links to artists' websites.

If you need a song for a particular theme, you could almost be guaranteed to find it here. Even obscure topics have at least two songs suggested, with many categories having a dozen or more suggestions. Although the suggested suppliers are American, the Internet makes them accessible to all libraries. If you use music in your children's programmes or would like to, then this title is a vital resource.

Michelle McLean

Casey-Cardinia Library Corporation

Song and dance: something special for story time

***Something Musical Happened at the Library: Adding Song and Dance to Children's Story Programs.* By Rob Reid. Chicago: American Library Association, 2007. 176 pp. US\$35.00 (ALA members US\$31.50) soft cover
ISBN 13: 9780838909423**

Children's story times are a key offering of public and school libraries. Our audience, the children, have changed over the years, as our society has changed. Library staff are ever on the outlook for new ideas and new ways to reach this changing audience. In many story times music is a key part. And if it has not been, this book gives guidance on how to add some 'spice' through song and dance. Where music is a part, this book gives some great suggestions and sources for more music options.

Rob Reid presents a plan in this book on how music and dance can add something special to story times. A companion to *Children's Jukebox* (2nd edition), in this title he presents a comprehensive guide to using music as a key part of story time. He begins by presenting eight ready-to-use lesson plans. Each plan is theme based and includes a selected opening song, a hello song,

and four picture books with a song between each, finishing with a closing song. A detailed outline of preparing and finding the appropriate content is also included, as are the words to the songs and a brief blurb on the chosen picture books.

The eight lesson plans cover the following themes: Animal Fair; Bon Appetit; Boogie Woogie Barnyard; Family Tree; May I Have This Dance; Morning, Noon and Night; School Talent Show; Toot, Toot, Beep, Beep. *Fun Pairings* offers a list of picture books matched with appropriate songs, enabling the storyteller to customise story times according to specific themes. Song and book suggestions include the title, author/performer and publication details, making the suggestions easier to locate.

More Musical Ideas includes an ad hoc list of musical programming ideas, with the song title and all its publication details and how and why it could be used in story times. The following chapters list songs under the categories of Call and Response, Cumulative Songs, and Songs Sung In The Round. Also included is a comprehensive list of picture books featuring music and additional resources.

For anyone wanting to add musical interludes to their children's programming, this book has many great ideas. Although US-based, many of the recommended picture books and songs are accessible in Australia. Even if not, just the suggestions can spark ideas that can be used with local content. I recommend this title to any children's librarian or anyone working with children's programming, as a source for stories, songs and inspiration.

Michelle McLean

Casey-Cardinia Library Corporation

Something to bite in to

***The Information Literacy Cookbook: Ingredients, Recipes and Tips for Success.* Ed. by Jane Secker, Debbi Boden and Gwyneth Price. Oxford: Chandos Publishing, 2007. 162 pp. price not reported soft cover ISBN 1843342251**

A team of 11 authors including the editors bring together *The Information Literacy Cookbook*, which sustains the metaphor introduced in the title from the introduction of the chefs (authors), to the coffee and petit fours at the end. If you enjoy cooking and information literacy, then be assured these cooks have good taste and are determined that others should share in their experience. They make it possible for other cooks to learn how to engage with information literacy programmes more easily.

The authors come from diverse places and have considerable expertise in the field. Debbie Boden is Chair and founder of the CILIP Information Literacy Group which regularly organises the British Librarian Information Literacy Annual Conference (LILAC). Gwyneth Price is a Fellow of the Centre for Distance Education, University of London, and Jane Secker is Learning Technology Librarian at the London School of Economics. The other authors include information specialists from Unilever, a learning resource centre manager, a corporate librarian, a school librarian, a head of informatics and a training team leader from the National Health Service, and an assistant director of Learning Development.

Between them these authors have designed an informative, educational and fun resource for busy professionals looking for 'practical guidance, inspiration and ideas'. The chapters cover information literacy staple diets as well as innovations in public libraries, health services, the commercial sector, schools, colleges and universities. Many conceptual and practical concerns are covered, including information literacy itself, learning theories and styles, and learning strategies. There is practical help for the librarian just starting, right down to guidance on essential ingredients, such as PCs, projectors, Web links and an idea of how long it might take to run sessions. There is also challenge and inspiration for the jaded palate looking for a new approach. This is a book for librarians who want to teach, enjoy teaching or who must teach.

Christine Bruce

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Careers: what you get and how to get them

***A Day in the Life: Career Options in Library and Information Science.* Ed. by Priscilla K. Shontz and Richard A. Murray. Westport, CT: Libraries Unlimited, 2007. 443 pp. US\$45.00 soft cover ISBN 13: 9781591583646 (available from DA Information Services)**

Shontz and Murray are the editors of LIScareer.com. They have assembled 96 contributors in *A Day in the Life* and had to turn down more than 300 others. They hope to publish some of these on LIScareer.com.

Aimed at people considering a career in LIS and at people already in the industry who are contemplating a change, *A Day in the Life* consists of 10 parts: Public Libraries, Academic Libraries, School Libraries, Special Libraries, Consortia, LIS Faculty, Library Vendors, Publishing, Associations and Agencies, and Non-traditional. Within these 10 parts are 96 chapters that describe a typical

workday and outline the advantages and disadvantages of the contributor's job. Most include tips on getting jobs like theirs; some contributors also include references. The coverage given to each part is not even: there are two chapters each for school libraries and LIS faculty compared with 27 for academic libraries.

While the book is aimed at those working in the United States and Canada, there are several contributions from around the world, including Australia. The non-North American entries are a little lost, because there is no locality index.

Most contributors provide a balanced analysis of the pros and cons of their jobs and are positive about their jobs and the profession. Only one contributor does not name his/her institution; it is not surprising that this is the most outspoken chapter when it comes to outlining the cons of the job: working in a small institution means 'you may have to collaborate and find agreement with a powerful person whom you dislike, distrust, or feel is manipulative or dishonest – someone who, under other circumstances, you might only meet in a cemetery armed with a cross and garlic'.

New graduates reading this book need to be conscious that the vast majority of contributors are well established in the profession, generally in middle management, and that their experiences may be very different from the experiences of librarians in the first few years of their careers. Greater frankness about career difficulties would have made *A Day in the Life* more valuable as a survival guide for new graduates; it also could have been a much more realistic book had the contributors been less discreet. I refuse to believe that only one of the 96 contributors to this book has to deal with change-resistant staff!

The strength of *A Day in the Life* is its usefulness in describing such a diverse range of jobs. Alongside familiar jobs like reference specialists, technical services librarians and serials managers are knowledge managers, GIS librarians, community evangelists and personal librarians. The variety of employers and work settings is also an eye-opener: a Canadian advertising agency, international school, Internet start-up company, prison libraries, a US embassy library in Oslo and a private social club library. The different career paths that people have followed is fascinating, and the numbers that have managed to create jobs for themselves are at once intimidating and inspiring. The Australasian reader will get much food for thought in contemplating future career prospects.

Sally Murdoch

State Library of Tasmania

Library managers and management

Library and Information Center Management. 7th ed. By Robert D. Stueart and Barbara B. Moran. Westport, CT: Libraries Unlimited, 2007. 492 pp. US\$46.60 soft cover ISBN13: 9781591584063, accompanying website: <http://www.lu.com/management/> (available from James Bennett Pty Ltd)

Management Basics for Information Professionals. 2nd ed. By G. Edward Evans and Patricia Layzell Ward. New York: Neal-Schuman Publishers, 2007. 567 pp. US\$65.00 soft cover ISBN 13: 9781555705862, accompanying website: <http://www.neal-schuman.com/managementbasics/> (available from DA Information Services)

It is a truth universally acknowledged that aspiring world leaders do not make librarianship (or archives and records for that matter) their first career choice. Those of us who do choose these professions are more likely to regard any management role more as an unwelcome obligation than something to embrace willingly.

The two textbooks reviewed here both open and close with statements about the importance of management: Evans and Ward make an explicit pitch to reluctant managers, under the heading 'Preparing Yourself for the Future' – 'You are better served, as are those you will first supervise, if you have some grounding in the basics of effective management', while Stueart and Moran observe that 'most librarians will need to assume managerial responsibilities at some point in their careers'. Both conclude with chapters of career advice: Stueart and Moran offer reflections on 'Deciding to Become a Manager' as well as advice on 'Acquiring Management Skills'; Evans and Ward range more widely across 'Appraisal and Self-Assessment', 'Setting Career Goals', 'Flexible Ways of Working', 'The Work/Life Debate' and 'Career Breaks'.

No single book has all the answers, and there are good and bad points about each of these titles. Both are thoughtfully constructed textbooks. Stueart and Moran's is the better designed, with wide margins, good clear type, and plentiful diagrams and tables (97 in total). Evans and Ward's is more textual than visual, with a mere 27 illustrations.

Both books introduce key concepts in the history of management thought before proceeding to current practice. And both, coincidentally, have 20 chapters. Stueart and Moran organise their book into seven sections: Introduction (an overview of the importance of management, the evolution of management thought, and change), Planning, Organising, Human Resources,

Leading, Coordinating, and Managing in the Twenty-first Century. Evans and Ward have a four-part structure: Background, Management (knowledge and skills, managing resources) Career Development and Your Future. Both pairs of authors write perceptively on the complexities of leadership and human resource management in the broader sense, as well as more black-and-white areas such as planning, marketing and financial management.

One major topic addressed only incidentally by Stueart and Moran, but given its own chapter by Evans and Ward, is Managing and Planning Physical Facilities for Information Services.

Evans and Ward conclude each chapter with a box of Key Points to Remember and a Launching Pad of recommended reading; they have also written *Beyond the Basics: A Management Guide for Library and Information Professionals* (2004). The companion website developed for Stueart and Moran is, however, much more elaborate than that offered by Evans and Ward.

These are introductory textbooks, and very few of the concepts they present will be new or strange to anyone who has been in the workforce for any length of time – but both have much to offer, and not just to students and recent graduates. Evans and Ward, in particular, cover much more territory in much greater depth than the word ‘basics’ might suggest. Although written for the North American market, the material in both books translates well to other contexts.

Ian Morrison

State Library of Tasmania

Quality source for cancer information

***The Medical Library Association Guide to Cancer Information: Authoritative, Patient-Friendly Print and Electronic Resources.* By Ruth M. Volk. Medical Library Association Guides. New York: Neal-Schuman Publishers, 2007. 331 pp. US\$85.00 soft cover ISBN 9781555705855 (available from DA Information Services)**

This book is everything it claims to be: a source of ‘authoritative, patient-friendly print and electronic resources’ on cancer. Medical librarians have taken a leadership role in the health sector in ensuring that patients as well as clinicians have access to the most reliable, informative and balanced information about health issues. This new guide strongly upholds that tradition.

From the early development of the Web there was an immediate proliferation of consumer health websites, some extremely valuable, some indifferent, and some downright pernicious; and many published guides to consumer health websites followed in their wake to help librarians and health consumers sort the wheat from the chaff. Is there any value in another one? Absolutely – this is an excellent guide whose merit lies in its thoroughly researched and peer-reviewed approach to the topic, and the invaluable additional information it provides.

The first section provides basic information about cancer, explains key concepts and terminology, and includes advice to health librarians about dealing with health consumers seeking cancer information, and strategies for searching and evaluating information. This section includes child cancer as a separate topic – useful because the issues surrounding cancer in children are even more complex than those related to adult cancer.

The middle section, on resources related to specific types of cancer, is also divided into two sections, adult cancer topics being treated separately from child cancers. Each specific topic starts with a summary of the condition, pathology and incidence (in the US only), and treatment options. This is followed by an annotated list of print resources, web resources, and patient support groups, whose value to the patient and his/her immediate carers, in terms of emotional support and health outcomes, has been well proven in the health sciences literature. The final section focuses on prevention, treatment and 'quality of life concerns'. The index offers a good alternative route into the information in the book.

Because of its well-researched additional information, attention to the reliability of information provided, and the sound advice to librarians throughout, this book is a must for health libraries and librarians. It would be invaluable in any public library, often the first port of call for someone recently diagnosed with cancer, but where there are often less adequately trained staff to deal with these complex enquiries. Staff and patients alike should make this their choice when seeking cancer information.

Rowena Cullen

Victoria University of Wellington

Research librarianship jewel

***Providing Effective Library Services for Research.* By Jo Webb, Pat Gannon-Leary and Moira Bent. London: Facet Publishing, 2007. 278 pp. £39.95 hard cover ISBN 1856045897 (available from *InBooks*)**

The title of this modest little book promises dry, dull, worthy precepts – a practical advice manual in the concrete-sequential corner of the grid, the sort of book you offer to review out of a sense of civic duty, like taking in a stray dog.

Nothing could be further from the truth. The three authors are librarians at English universities – Webb at De Montfort University, Gannon-Leary at the University of Northumbria, and Bent at Newcastle University – and their book is built around reflections on their experience. Each of the authors has several degrees, and their observations are informed by personal understandings of the processes and contexts of research: they set out ‘to give a flavour of what it is like to do research and of the context in which researchers work ... in order to illustrate some of the pressures, constraints and opportunities in their lives’. One of their key observations is that

researchers had heterogeneous information needs and adopted very different approaches to finding what they needed... [A]s librarians we need to consider the information universe from the perspective of our users. We can underestimate the importance of peers and networks in making information available.

Librarians, they insist, cannot safely assume that they know best what researchers need – ‘research is a very individual activity’.

The book’s specificity is what gives it its broad appeal. Far from rendering the work irrelevant to other sectors, Webb *et al*’s detailed examination of their clients’ circumstances presents practitioners in other sectors with a model approach to client-focused service development. Those of us outside the UK higher education sector do not, for example, need to know the finer details of the 2001 *Research Assessment Exercise*, or the findings of the subsequent *Roberts Review*; but Webb *et al*’s exposition is a prompt to explore our own clients’ operational contexts, their big-picture political and professional concerns, with a view to developing services that genuinely meet their needs.

Much of what Webb *et al* have to say is refreshingly provocative:

Researchers will always need information, but will they always need libraries? Traditionally, research libraries have been sure of their position ... but in the digital age such complacency is dangerous. We face challenges to the ways we develop

and deliver our services, as researchers are much less dependent on their own organization's library and information service than in the past.... What is it about your library which will make researchers choose it over another? Do you have specialist resources, is it the most convenient or cheapest option ... or does it simply provide a supportive and pleasant environment?

There are no pat answers; the authors do not seek to tell you what to be, but they show you ways to understand the implications of what you are.

Every profession needs to understand its clientele. Rarely does library literature do so as successfully as the authors of this unexpected little gem.

Ian Morrison

State Library of Tasmania

Selecting instructional technology in academic libraries

***Teaching with Technology: An Academic Librarian's Guide.* By Joe M. Williams and Susan P. Goodwin. Information Professional Series. Oxford: Chandos Publishing, 2007. 157 pp. US\$49.95 soft cover ISBN 13: 9781843341727**

In *Teaching with Technology* the editors have brought together a dozen respected experts from both fields – education and cutting edge technology – to provide a practical and accessible approach to the use of popular technologies for instructional purposes. The challenge facing librarians is to identify and understand rapidly evolving technologies and to find logical and useful ways to incorporate them in the delivery of instructional services. This slim volume provides an overview of the current situation and helps the practitioner choose those that will be most useful in the rapidly developing instructional environment of the academic library.

Beginning with screencasting (online video tutorials), other topics covered include blogs, wikis, RSS, podcasting, virtual reference, mobile wireless computing and videoconferencing. The process of creating space for collaborative learning (including information commons) within institutional libraries, the place of librarians in the Course Management Systems (CMS) learning environment, and the future of professional development and collaboration in teaching are the topics of the remaining chapters. The book is indexed, and each chapter concludes with a list of suggested further reading,

relevant online resources and even relevant podcasts. The case studies and examples effectively highlight possible applications of each option. If the technologies discussed in this book continue to develop, their future will generally provide opportunities for increased interactivity and personalisation for the user, as well as improvements in computing and networking speed and storage capabilities. Highly interactive, game-based tutorials and virtual reference and instructional sessions may well incorporate personalised features such as a provision for on-screen annotation. Library instructional screencast and podcast offerings will give patrons more flexibility and control in meeting their specific instructional needs.

As the subtitle suggests, this book is intended primarily for academic librarians, whose role as both educators and technology innovators is becoming widely recognised. However, it would also be a valuable resource for reference librarians, technology and systems librarians, library and information science academics and any other academic instructors interested in incorporating technology into their teaching. Instruction and technology are important aspects of librarianship, and this handbook successfully brings the two topics together in a practical overview. If, however, a decision were made to use any of the technologies discussed to extend and expand library instructional services, then the practitioner would be likely to require more detailed information than that presented here. Nevertheless, this is an excellent introduction.

Helen Dunford

TAFE Tasmania

Guidelines for authors

The Australian Library Journal welcomes contributions documenting developments in research and professional practice as well as more general articles on issues relevant to librarians and libraries.

Most articles are peer reviewed. These include substantial pieces and articles whose authors request review.

Preferred length is 3500–5000 words, and the preferred format for submission is an MS Word (Arial, 12 point, double spaced, left justified) attachment to an email sent to the Editor at:

ian.mccallum@alianet.alia.org.au

Articles should be accompanied by an abstract of up to 150 words, plus brief biographical details of the author(s).

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