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university libraries and librarians*
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NSLA Re-imagining Libraries
Project 8 – Description and Cataloguing*
Pam Gatenby

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Editorial

This issue focuses very much on university students – how their library can help them in traditional and less traditional ways. While we often hear concerns over the future of university libraries, the major projects recently completed (for example the University of Sydney Law Library), about to be completed (Macquarie) and in development (UTS) indicates a level of confidence and activity within the sector that bodes well for the future. And if the level of research, as indicated by these contributions, continues to match the building program then things are looking very positive indeed.

Thus the issue contains a report from Hilary Hughes looking at international students' experience of the university library – how successful or otherwise it has been and importantly, how the library can help create better connections. Given the importance of this cohort to virtually all our tertiary institutions this seems an area fruitful for further research. This is followed by a report from Dobozy and Gross of faculty/librarian cooperation at Edith Cowan in providing library tutorial programs through pod and vodcasts to first year education students. While of mixed success this again suggests areas of further research in order to engage fully with students and their needs.

Student involvement in the university library is reported in quite a different way by O'Neil and Comley who report on the use of student assistants as casual employees in Victoria University's various branches. In just two years students now account for 25% of VU staff, providing what appears to be a service popular with the students themselves and with most of those employed. Even professional library staff are getting used to it! Not necessarily an easy situation but one of interest to many I am sure.

Again, focusing on students, but what they do after they finish their studies, researchers from QUT report on a student destination survey focusing in on LIS graduates. Their employment prospects seem to be very good with extremely low unemployment figures – again, a good augury for the future.

Moving on from the theme to a topic most readers will find familiar – the literature review. Boell and his colleague provide an overview of its strengths and weaknesses, suggesting that an iterative approach that moves from the specific to the general and back works well for the social sciences and humanities in identifying highly relevant publications.

Finally, following on from the overview of the NSLA Re-imagining Project provided in the last issue, Pam Gatenby from the NLA provides a more detailed report of one the projects – that related to description and cataloguing. It seems that this is an area that has suddenly come to the forefront with developments such as the long awaited RDA, the launch of Trove and the growth in crowd sourcing, tag clouds and the 'wisdom of the masses' making this a particularly exciting time. While not a research article, it is hoped that readers will find this report interesting and stimulating.

Bob Pymm
Editor

INTERNATIONAL STUDENTS' EXPERIENCES OF UNIVERSITY LIBRARIES AND LIBRARIANS

Hilary Hughes

International students constitute a significant proportion of the Australian university population, and thus of the university library-using population. Drawing on qualitative research findings, this paper discusses the library-related experiences and perceptions of international students at two Australian universities. While the students' previous library use was limited, at their host university they experienced challenges using the library, often associated with unfamiliarity. However, they generally viewed their Australian university library and library staff in a positive light. The findings support recommendations for developing library professionals' awareness of international students' and their library use.

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INTRODUCTION

International students studying in Australian universities have varying experiences of libraries and librarians. Their transition to studying at their host university often involves negotiating unfamiliar library processes and technologies. Library professionals who are attuned to the strengths and challenges of international students can play an important part in enabling them to become successful library users and learners.

This paper views the university library and librarians through international student eyes. Drawing on recent research at two Australian universities, it offers insights into the library-related challenges and learning needs experienced by these students. The study found that overall, international students viewed their Australian university library, and the assistance offered by library staff, in a positive light. However, individuals were challenged, variously by unfamiliar

library arrangement, services and information sources. Some students also expressed uncertainties regarding the roles of library staff, or were unaware of the support library staff could provide to assist their studies. They also found information literacy learning opportunities to be insufficient in meeting their needs. Consequently, this paper focuses on three points for attention for library professionals working in Australian university libraries: (1) to develop awareness of international students' experiences, (2) identify associated learning needs, and (3) apply strategies for addressing these learning needs.

INTERNATIONAL STUDENTS AS LIBRARY USERS

International students represent a significant proportion of potential university library users. In Semester 1, 2007 an estimated 210,956 international students were enrolled in Australian universities, accounting for 17.3% of the university student population (IDP Higher Education 2008). However, it is important to recognise that international students are not a homogeneous group (Lukic, Broadbent & Maclachlan, 2004). They come to Australia from over 150 countries with widely varying linguistic, religious, literary traditions, and socio-economic and political structures (Australian Education International n.d.).

Previous research shows that at their host university, international students may encounter personal or study-related challenges, associated with language variations and unfamiliar social and educational practices (Ballard & Clanchy, 1997; Killick 2008; Ryan 2005; Mullins, Quintrell & Hancock, 1995).

Challenges experienced by international students often extend to their library use and interactions with library staff. For international students, library-using challenges can be described as having three inter-connected dimensions, environmental, cultural-linguistic and affective.

First, with regard to the environmental dimension, the academic library environment and its particular processes and technologies may be unfamiliar to international students (Baron & Strout-Dapaz, 2001; Mehra & Bilal, 2007; Moeckel & Presnell, 1995). Some may lack a "conceptual awareness of library" (Moeckel & Presnell). Others may have used a library with a different character to their host library, which perhaps had a small or outdated collection, or one that served as a study hall or textbook repository that may not have offered direct access to its resources (DiMartino & Zoe, 2000; McSwiney, 1995; Mehra & Bilal, 2007; Moeckel & Presnell, 1995; Patton, 2002; Wales & Harmon, 1998). Consequently, library systems and online resources, which are widely used at their host library, may be new to recently arrived international students.

Also related to the environmental dimension, recent research indicates that international students have a general familiarity with computers (Liao, Finn & Lu, 2005; Mehra & Bilal) and high Internet use (Jackson, 2005). Despite this, international students generally demonstrate low levels of familiarity with academic online information resources such as journal databases, tending to adopt basic and uncritical information seeking approaches (DiMartino & Zoe; Liao, Finn & Lu; Mittermeyer 2005; Patton).

Second, with regard to the linguistic-cultural dimension, international students sometimes experience challenges associated with adjusting to unfamiliar linguistic and cultural practices, non-verbal behaviours and communication styles, and also in learning approaches effective in the Australian situation (Baron & Strout-Dapaz; Moeckel & Presnell) where international students may be challenged by an expectation to think critically and to independently seek and select information for assignments beyond set texts. Social, cultural and linguistic uncertainties may also hinder international students' interactions with library staff. Since international students frequently speak English as a second or additional language, they may be reluctant to ask questions due to lack of confidence or embarrassment in speaking English (McSwiney). In addition, language-related challenges are frequently associated with online information use (DiMartino & Zoe; Mehra & Bilal; Patton). They may also be unclear about library staff roles and reluctant to seek assistance, either believing that it is only appropriate for academics (and not students) to interact with librarians, or equating librarians with clerks (McSwiney).

Differing language structures may also underlie difficulties international students experience in navigating the library. For example, students used to reading text from the right, or in columns, or in an alternative script, may initially find it challenging to source information in a library with a left to right shelving arrangement, or a classification system and indexes that use roman numerals or alphabetical sequencing (Bilal; McSwiney; Patton).

The third affective dimension is connected with both the environmental and cultural-linguistic dimensions. The sheer size of a university library with its unfamiliar practices and technologies can be bewildering, overwhelming and even frightening to international students (Macdonald & Sarkodie-Mensah, 1988). Challenges in using the library may cause feelings of confusion, anxiety or frustration (McSwiney; Onwuegbuzie & Jiao; 1997).

Much of the above mentioned research presents factual data concerning how international students use libraries and information. While providing useful background information that alerts library professionals to particular student needs, the findings tend to be quite generalised, differentiating international students from other students, and emphasising their difficulties as problem areas or barriers. Importantly, they tend to present a library-centric view of international students. More recent research has explored library-related experiences and preferences from the international students' perspective (Jackson; Sackers, Secomb & Hulett 2008), an approach which was followed by the study featured here.

EXPLORING INTERNATIONAL STUDENTS' LIBRARY AND INFORMATION USE – OVERVIEW OF THE STUDY

This study, as part of the author's doctoral thesis, investigated international students' use of online information resources. Conceptually, the study viewed international students as information seeking learners, through the lens of the relational model of information literacy (Bruce, 1997). Seeking detailed, real-

life insights, the study involved 25 international students from two Australian universities. The students were characterised by their personal, cultural and linguistic diversity, and included male and female, undergraduate and postgraduate students, aged between 20 and 50 years. The international students came from fifteen different countries and spoke about 20 different languages. While English was their common language, most used English as a second or additional language. The participants were recently arrived international students, who were likely to have fresh memories both of their previous library and information use, and of their transition to study in Australia.

The researcher developed and implemented an expanded critical incident approach (ECIA). Building upon critical incident technique (Flanagan, 1954). ECIA incorporates five inter-related phases: Planning, Collection, Analysis, Interpretation and Reflection. Data collection involved open-ended interviews and observations focusing on real-life critical incidents experienced by the international students whilst using online information resources for assignments. Inductive data analysis and interpretation created a word picture that revealed the complex nature of the international students' information using experiences and an array of information literacy strengths and needs.

The following sections present a portion of the study's findings relating to: the international students' library using experiences; their perceptions (and misconceptions) of their university library, library staff and information literacy education and their recommendations for enhancing their library and information use. They confirm previous findings outlined above demonstrating international students' relatively limited library use prior to entering their host university. In particular, three contributing aspects were identified relating to the participants' previously limited information needs, the prevailing pedagogical approaches in their home country, and the differing nature of libraries in the home country and Australia. The pattern was similar for students from countries as varied as Sweden, China, Japan, Malaysia, Israel, Jordan and India. These findings are important since the international students' limited previous library use was shown to be associated with challenges of unfamiliarity, which they experienced at their Australian university.

INTERNATIONAL STUDENTS' PREVIOUS LIBRARY USE

While 17 of the 25 international students had used some type of library in their home country, only eight had previously used a university library; six had used a school library and three had used a public library. The nature of their library use was generally quite limited. Several reported that they had used a library more as a place to study than as an information source. In contrast, others had only used a library for leisure purposes. For example, Han (from India) had gone to her school library to read comics and Cal and Jim (both from Malaysia) had gone to a public library to read magazines. (Note that pseudonyms are used to protect students' confidentiality; however, the home country of each participant is accurately reported).

Some students had bought rather than borrowed books.

The students often reported that they had not previously used a library for study simply because they had not needed to. For example, Van (from Sweden) said his IT course involved only “raw programming”. Limited library use was often associated with approaches to learning in their home country, which were teacher-centred and textbook-based. Mat (from India) stated:

When I was studying I must admit that I did not have a habit of using the library... I did not know where the library was, because I did not study in it; and there was nothing in the way we were taught which entailed the need to learn, because at the point in time it was really a one – way sort of street, because the teachers would teach and we would learn, and we have the textbook as a point of reference; so we did not really need to go out of that very much, and it was a lot of learning by rote.

Lia (from China) explained that although there was a library at her university, she did not use it because the final results “highly depend on your final exam and we don’t have much big assignments, so we don’t do a lot of research work”. Pat (from Thailand) commented that she did not need any books because “the teachers have the sheet and we just write in the answer”.

Even those who had accessed study-related resources in a library reported quite basic approaches. For example, Han (from India) reported that her teacher directed her to a particular book in the library and to take notes from it. She commented that this was different to the independent approach her Australian lecturers required, whereby she has to “find ... which book is good for this assignment ... we have to read first”. In some cases the library was principally a textbook repository, as Mel (from India) explained:

I hardly used to go to the library ... the reason libraries used to be there was to collect books and that used to happen in just the first week of the semester. After that, never used to look at the library, maybe at times just to grab a newspaper and that’s it.

Some students reported that they had not used the university library in their home country due to poor quality of the collection or its organisation. For example, Sun (from Jordan) commented that “The actual books in the library were too old ... unless you needed historical data – thousand, two thousand years ago”. Lyn (from China) was also deterred from using her library because the books were dated and generally not useful. She also found the library inconvenient because there was usually only one copy of each book and “if a student has borrowed it, I can’t borrow it”. Other students reported that it was difficult to find books in their previous library, since there was no catalogue or they did not understand the arrangement. Ela (from China) explained that since there was no catalogue, she needed to read signs on the shelves to find books on a particular subject. Jan (from Malaysia) commented that in previous library the books were “divided into sections” but not catalogued, consequently:

You just ask the library ... do you know this book or this book,

and librarian say you just go down stair, which section or sections
and you have to look through the whole shelf with the books ...
sometimes they don't even know if this book [is] on ... and you
have to look for it yourself.

The students were sometimes unfamiliar with library processes, which are taken for granted in most Australian libraries. For example, Tom (from Vietnam) was unused to borrowing resources and at first thought that he would need to pay for library loans (similar to bank loans). He, like other students, was also unfamiliar with the online library system and communication with students via email. Han (from India) indicated that she had only experienced a closed access library collection:

We ask the librarian and then ... she note down all ... the details
of the students in her book and whenever we need it we have to
give our card to her and give her the name of the book and it's she
who give us the books.

Given the increasing emphasis on digital libraries and online interaction in Australian higher education, it is important to note that very few of the students had used online academic resources, such as a journal database or library catalogue. Tom (from Vietnam) reported that there were no electronic resources at the university where he taught. While Lia (from China) had been aware of (but not used) Chinese language databases at her previous university, she said these were Chinese databases and different to those she encountered in Australia. In contrast, the great majority of the participants had previously used the Internet for personal purposes. However, only about two thirds had used it for study purposes.

INTERNATIONAL STUDENTS' LIBRARY USE EXPERIENCE AT THEIR AUSTRALIAN UNIVERSITY

All 25 international students reported using the library at their Australian university in some way. Their notion of the Australian library generally seemed to incorporate physical location, print and online resources and practical assistance in using the library and its resources. In addition to accessing online resources (a key recruitment criterion for the study) most also reported borrowing books, accessing online resources, using the library as a study place, participating in information literacy sessions, and seeking help from library staff.

In general, the international students spoke positively about their library using experiences at their Australian university. Sun (from Jordan) commented that "the library here – it's a beautiful place" and Liz (from Singapore) stated that "it's big, and very good, very well managed". Mat (from India) found the library collection "very very easy" to use and Nik (from Japan) commented:

I like to go to a library to browse through the topics of the book...
and then I can just look in the index...I think it's even faster for me,
especially in a small library like this, to find exactly what I'm looking for.

They found that the library contributed to their study, as a source of information. For example, Tom (from Vietnam) said "I think library is really important, especially [as] different source of information, from print journal and online journal".

Given the international students' generally limited previous library use it is not surprising that many were surprised or confused by the library at their Australian university. Individuals' reluctance to use the library was sometimes related to their unfamiliarity with library services and processes. For others, initial unfamiliarity hindered their effective use of the library. For example, Ela (from China) said: "I had no idea how to ... borrow a book from the library and ... and I didn't know how to use the catalogue ... and I just walk around all the books until I find several books". She went on to explain that she experienced difficulty in making a connection between a book's call number, as shown in the catalogue, and its location on the shelf: "Call number ... I ... feel a bit of confusion, sometimes I cannot find book ... I think it should be there but I just cannot find and I don't know how they put the book".

While most students used the library's print resources, they often preferred to use online resources. For example, Kim (from Thailand) explained:

I like search info from Internet because when I feel library is good information, but all the book someone borrow already...I have to wait for long time and maybe they return the book after my due date of assignment ... So if I use internet I don't have to wait for queue ...and I can search for a whole night.

The students often tended to use freely available Internet resources in preference to the academic resources available via their university library web page (such as journal databases, and specialist information sites like ABS or CCH). While the students generally reported Google and other search engines easy to use, individuals often indicated that they found the academic resources difficult or time-consuming to use.

The participants' responses indicated various misconceptions about the library. For example, several were under the impression that the library produced all the online resources available on its website, including journal databases. Jan's previously unsuccessful experience of using the catalogue to locate resources, led her to believe that not all books were recorded in the library database "because all these books that I found on the shelves, are not shown in my search results through the library catalogue". As a result, Jan (from Malaysia) lacked confidence in the catalogue as an information searching tool.

Some students were hesitant to use the library because they thought that they would need to pay to use library resources. For example, Tom (from Vietnam) said: "I didn't have enough money to pay for everything so I didn't dare to go to the library to get loan because I thought that I had to pay some money". Rod (from China) decided to buy a CD-ROM encyclopedia, thinking it would be cheaper than using online journal databases.

INTERNATIONAL STUDENTS' PERCEPTIONS OF LIBRARIANS AT THEIR AUSTRALIAN UNIVERSITY

The international students were generally appreciative of the quality of assistance provided by library staff. However, they were sometimes unaware that librarians were available to assist with academic work, beyond providing general directions. This appeared to be associated with limited understanding of various library staff roles.

The international students tended to consider librarians as being experts in technical aspects of organising the library as well as using computers and online resources to support research. Nik (from Japan) stated: "You guys are the experts at making research". The participants generally seemed to find the library staff at both universities to be helpful and approachable, with several commenting favourably about their assistance and professionalism. For example, Mat (from India) considered that "The staff in the library are absolutely outstanding, in terms of ... their willingness to help". He added: "I've been in customer service myself and I'm just amazed at the temperament, I mean ... at half past four in the evening the person is still smiling and still polite and still very patient". In addition, Sun commented the library staff were:

Extremely helpful. Well-grounded employees, because they're dealing with so many cultures ... computer-wise ... How friendly they are ... Above all they're humble ... well-rounded individuals – not bossy or keeping a distance between the students. ... I actually found them one of the most helpful departments.

Students gave many examples of how a librarian had assisted them, both in searching for and locating resources (online and on the library shelves), as well as with referencing and IT problems. Jan (from Malaysia) mentioned the positive impact of the verbal encouragement she gained from a librarian whilst helping her to use an online resource: "They helped you to type it in and say okay, nearly got results, things like that".

Some participants indicated misconceptions about the library staff. In particular, they tended to refer to all library staff as librarians, suggesting that they were unaware of differing roles. In particular, they were less aware of the educational role of librarians. In contrast, some were surprised when asked if they had sought help from their lecturers, or if their lecturers had taught them, about using online resources.

While most of the international students found the library staff to be helpful, some were reluctant to approach them for assistance either because they did not realise they could do so, or because they seemed too busy to disturb. For example, Ann (from Israel) said: "I don't know I can come [to the library] ... and say I have this assignment and I don't know how to look for materials". Han (from India) described the following situation where she failed to gain assistance:

Because I was new in this university and ... a pressure on my mind ... I tried once but the staff ... she was very busy at that time. She

had 2 students so I thought, 'OK, now it's going to be 1 hour or 2 hour', so I went away.

INTERNATIONAL STUDENTS' PERCEPTIONS OF INFORMATION LITERACY EDUCATION AT THEIR AUSTRALIAN UNIVERSITY

The two university libraries featured in this study actively promote information literacy education through a range of course related and generic programs. However, only one third of the students participated in library-provided information literacy education, and this was mainly at the basic level of a library orientation or introductory information skills session. In contrast, over three quarters of the students gained informal help from library staff, lecturers or friends. The students' limited participation in formal information literacy education appeared to be associated more with limited opportunity, rather than intentional avoidance.

In reflecting on their information literacy learning experiences, the students tended to focus on less positive aspects, which included the short, rushed nature of introductory sessions; the generic content of introductory sessions; and the inconvenient timetabling of introductory sessions. For example, Mat (from India) said the information literacy session he attended was inadequate because "it was too too short and it's not the kind of thing you can grasp in a half hour lecture".

Lia (from China) attended a seemingly more advanced seminar on using databases, but she too still found it too brief and general for her needs:

In that seminar, since the time is quite limited, we don't really go through every database ... it is quite general for every student which are from different faculties.

Several students commented that the scheduling of most introductory classes during orientation week and Week 1 of semester is unsatisfactory for international students. They pointed out that at this time they are often less settled (even may not yet have arrived) and unaware of their course-related information needs and learning approaches. Others expressed a wish for more in-depth and subject-specific classes about using online resources. Nik (from Japan) indicated that he would be prepared to spend considerable time learning to use online resources: "If I know I can get very good understanding ... and making very effective searches ... I wouldn't mind spending ... six, ten hours". However, a few students were simply unaware of help available at the library.

INTERNATIONAL STUDENTS' RECOMMENDATIONS ABOUT THEIR AUSTRALIAN LIBRARY

In reflecting on their library and information using experiences, the international students offered several recommendations for improving online resources, library services and information literacy education. With regard to online resources, their suggestions included clearer layout and more visually appealing interface design; subject-specific web pages on the library website, linking to recommended

information; a website providing information about Australian social, cultural, political traditions; and a 'super search engine' for searching across all databases (in other words, federated searching). The main recommendation relating to library service provision was for 24-hour online help.

The most extensive recommendations were associated with information literacy education. In particular, the students indicated the need for more extensive learning opportunities that were subject-related and continuous through their course. They indicated various individual preferences for learning and teaching modes, which included face-to-face and online interaction, demonstration and hands-on practice. They also suggested more flexible timetabling, with introductory sessions available both at the start of and later in the semester, and follow-up sessions to build on the knowledge developed in the introductory sessions; according to need, these would be of varying length from one hour classes to weekend long workshops. Perhaps most importantly, Lia (from China) highlighted the need for educators (and librarians) to be aware of and address the varied attributes and learning needs of international students:

On the first day of ... the tutorial or the workshop, if the lecturer can identify the problem from the student, because ... I think that some time, with some of the lecturers, they take things for granted, in their assumption every student know that. But really some international student didn't know that. We came from a different background and we really need help.

ENHANCING INTERNATIONAL STUDENTS' LIBRARY USE

From the library perspective, there is an apparent need for library professionals to be aware of the varied attributes and educational experiences of incoming international students – and to beware of making assumptions about their previous library use. It seems important to not just consider what students apparently know about the library or how they use it, but also to develop understanding about their perceptions (and misconceptions) about libraries and librarians. We need to be alert to possible misunderstandings, due to unfamiliar library processes and learning approaches, or ambiguous language. For example, we cannot assume that all students are familiar with using a library catalogue or accessing resources for themselves, or even with the notion of 'cost-free' resources. Similarly we need to be careful about the language we use to describe library processes. Whilst attending to particular aspects, we need to also consider the wider goal of increasing international students' understanding of the library and library staff roles, thus enhancing their information use and learning.

The findings suggest three main points for attention for university libraries and library professionals. First, there is a need for ongoing formal and informal interaction between library staff and international students, to develop awareness of students' library-related experiences and perceptions. Second, it is important to identify learning needs associated with international students' perceptions (and misconceptions) of libraries and librarians. Third, there is a need to develop

strategies for addressing the identified learning needs. Particular aspects of the three points are summarised below.

Awareness of international students' experiences and perceptions could be developed through:

- Informal contact (eg. social occasions, chance conversations)
- Informal enquiries (eg. enquiries at Library Help Desk, out of class questions to lecturer)
- In-class/on-line discussion
- Formal needs analysis (eg. pre-testing, criteria-based assessment, learning support interventions)
- Formal research (eg. interviews, focus groups, student satisfaction surveys)

Learning needs for further consideration include:

- Unfamiliarity (eg. with library processes, technologies)
- Language (eg. ambiguous expressions, library-related jargon)

Strategies to address identified learning needs could focus on:

- Developing familiarity with the nature and purpose of library (eg. borrowing, free access)
- Developing basic, assumption-free information about the library and library staff in multiple formats and simple language (eg. formal guide, manga comic, web-based quiz, interactive glossary)
- Promoting the range of services and resources, in multiple ways (eg. leaflets and bookmarks, Facebook, Twitter)
- Explaining library staff roles (eg. during orientation, online librarian vignettes)
- Allowing opportunities for informal interaction between library staff (with differing roles) and international students (eg. 'meet the librarian' morning tea)
- Encouraging help-seeking (eg. online 'ask an anonymous question', proactive 'can I help you?' text message)
- Developing, implementing and promoting international-friendly information literacy learning opportunities (eg. orientation + course-related follow-up, flexible timetabling; focus on developing Australian cultural knowledge; incorporating international resources and examples)
- Collaborative approaches across the university (eg. between the library, the university's international office, academic and language learning specialists)

CONCLUSION

The research findings discussed in this paper suggest a mutual need for enhanced awareness among library staff and international students at host universities. While international students would benefit from opportunities to develop greater familiarity with library-related concepts and processes, library professionals can enrich their practice through understanding international students' perceptions and expectations of the library. By identifying and addressing library-related learning needs, university libraries can play an important role in supporting international students' transition and learning in their host country.

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PUSHING LIBRARY INFORMATION TO FIRST-YEAR STUDENTS: AN EXPLORATORY STUDY OF FACULTY/LIBRARY COLLABORATION

Eva Dobozy and Julia Gross

The authors contend that better information literacy and library skills development practice is needed for students entering university. This paper presents a case study of how a teacher education (TE) lecturer and a faculty librarian collaborated in an Australian university to provide information literacy practice. A mutual interest in technology-enhanced learning and teaching through podcasting media was the catalyst for the collaboration. A semester-long trial was conducted in which library pod/vodcasts were provided to first-year teacher education students. This paper explores this student learning project and proposes a prototype for further media-related collaboration between academic and library staff.

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It is widely acknowledged that educational collaboration can lead to useful innovations (Selinger, 2009). However, Cardini (2009) points out that collaborative endeavours are “complex, ideological and contradictory social phenomena” that call for careful explanations of the intent of the cooperation between the various parties (p. 394). Hence, this paper focuses on the potential of a strategic model of a better aligned in-house support system to assist first-year students. This pilot study is used as an illustrative example of a technology-enhanced learning and teaching support program.

The paper discusses the intent and impact of a strategic one-on-one partnership

between a lecturer and faculty librarian. The aim of the partnership was the development, implementation, and testing of a semester-long trial of embedded library podcasts in a first year unit's learning management system (BlackBoard) in a teacher education course. In the first year education studies unit, the researchers worked in close partnership, with the aim to improve academic support for students new to university study. By providing 'just-in-time' library pod/vodcasts, it was anticipated that students would feel less like 'academic tourists', developing a more scholarly mindset. This would allow them to feel as 'academically belonging' to the university (Sternglass 1997, p. 130).

The multi-media library component was made available to students in addition to traditional face-to-face library workshops. The intent of strategically embedding the library podcasts in the unit's BlackBoard site was twofold: (a) to place library support materials where students would conveniently find them at the point of need, and (b) to emphasise to these students that acquiring library and information literacy skills is seen as an essential component of academic success in post-secondary education (Scott, 2008).

FIRST YEAR EXPERIENCE IN AUSTRALIAN UNIVERSITIES

Students in their first semester at university face challenges pertaining to campus size, learning environment, and discipline-specific paradigms and requirements. Often, students struggle to understand academic expectations at the higher education (HE) level, with concerns over completing their first assignments, and making sense of the stated requirements for assignments: tasks, which can, and often do, induce stress and anxiety (Stallmann, 2008). However, students can obtain support and assistance to help them adapt to HE learning and teaching. The strategic partnership model described here is one approach that has the potential to assist learners, many of whom are first-generation university students, succeed in a higher learning environment.

In devising student support strategies, the researchers targeted students' learning environments and learning habits. A longitudinal national study into the first year experience in Australian universities has reported on students' increasing use of ICT (including lecture podcasts) to access course materials; the pervasiveness of BlackBoard, WebCT, and Moodle; and students' perception of ICT more generally in education (James, Krause, & Jennings 2010). However, as the authors of this study believed, student engagement with learning technologies is an area that warrants further research and institutional investigation (James et al 2010, p. 46). With this in mind, project was conceived to investigate the usefulness of podcasts in delivering an effective information literacy program to first year education students.

PODCASTING INFORMATION

Podcasting involves making audio or video recorded files available for download (McGarr, 2009). Many universities have now embedded audio podcasts and video enhanced podcasts (or vodcasts) into the course environment with positive results

(Masad, Masad, Blank, & Enjeti, 2010; Scott, 2008; Scutter, Stupans, Sawyer & King, 2010). This is in response to research that suggests that technology-enhanced collaboration between staff from different departments within a university can help to facilitate student access to vital information (Michel, Hurst & Revelle, 2009).

THE PROBLEM: LACK OF INFORMATION LITERACY SKILLS

For their first academic assignment, all students new to university-level study are faced with a complex information landscape. On the one hand, the ubiquity of search engines, most prominently 'Google' with the ease of its search function, means that information on any academic question is available at the click of a mouse. Yet many first-year students lack information literacy and critical thinking skills to sift and sort the material that is readily available, and to locate that which is not available on 'Google' but instead provided in domain specific databases (Schulte, 2008; Swanson, 2005; Thomlinson, 2008; Waters & Brooks, 2010). As Combes (2008) contends:

This generation's lack of understanding of how the Web works coupled with high levels of confidence, means they often fail to realise they don't know and assume that if they can't find it on the Web then it doesn't exist. (p. 15)

The first-year students in this study were expected to demonstrate specific information literacy competencies. For example, in their first assignment students were required to use at least five references, none of which were to be from Wikipedia. In addition, they were asked to demonstrate the following library research skills:

- where to locate information in the physical library and e-library;
- how to evaluate information;
- how to store information for later use in academic papers; and
- how to cite academic work used in assignments.

THE LIBRARY POD/VODCAST INTERVENTION

A brief review of the current literature showed that other universities (Curtin University of Technology, Queensland University of Technology, University of Technology Sydney, and others) have experimented with the podcasting of library information (Ralph & Olsen, 2007; Jowitt, 2008). But most of these library podcasts are placed on the library website rather than being embedded in the learning management system.

It was proposed to adopt the Learning Activity Management System (LAMS), which had been used by Macquarie University Library to embed library information skills into a second year level teacher education unit (Wright & Cooper, 2007). LAMS was offered as a simple plug-in (see Figure 1) to BlackBoard. LAMS activities can be constructed to include media and problem

based learning tasks. LAMS is a preferred learning tool as it is activity-driven, provides a highly interactive learning environment, and facilitates the monitoring of student interaction at various levels.

The following generic and subject specific pod/vodcasts relevant to first-year teacher education students were chosen for the pilot program:

- borrowing from the library (3.30 minutes);
- education databases (4.00 minutes);
- developing a search strategy (5.50 minutes); and
- Wilson Web – education database (7.45 minutes).

The 2009 cohort of education students (n=345) were predominantly school leavers. The majority of which, (292 students) agreed to have their online activity monitored. BlackBoard, in conjunction with LAMS, was used to deliver the students' media activities throughout their 12-week course. In an early lecture titled *Personalised teaching and learning with Web 2.0 technologies*, students were introduced to the blended learning mode and the BlackBoard environment, which was set up as a 'one-stop-shop' to make information access easy and unproblematic. Hence, the two library podcasts and two library vodcasts were conveniently accessible through the LAMS plug-in within BlackBoard by simply clicking on the link (see Figure 1). But this access was not compulsory and did not attract any assessment points. However, it was made explicit that the library, in its physical and virtual form, was a vital learning space.

The four library pod/vodcasts were designed to familiarise students with some basic library skills, some of which were necessary for successful completion of first semester assignments. A written transcript of the information presented in the four modules was provided to cater for students with various learning styles, thus enabling students to 'read' and 'hear' texts simultaneously if they wished. However, in retrospect, the provision of hard copy information may have induced some students to not bother with the online material.

Figure 1: Library pod/vodcasts in LAMS within BlackBoard



The table below summarises the nature and purpose of each of the four basic library skills development modules. The modules were selected and introduced in a specific order, commencing with the less demanding podcast about the university's borrowing system and increasing in complexity to arrive at a vodcast demonstrating the use of a specialised database for high-quality, up-to-date information retrieval in the field of education.

Table 1: Library podcasts/vodcasts including selected Forum comments

Library Module	Type & Duration	Description
Borrowing (1)	Podcast (3.30 minutes)	This module introduces students to the library's system for borrowing items; how to access material and rules and regulations of borrowing items from the library.
Education databases (2)	Podcast (4.0 minutes)	This module is narrated by an experienced librarian, explaining the importance of using journal databases for locating specific academic articles for assignment topics in education.
Search strategy development (3)	Vodcast (5.50 minutes)	This vodcast provides a step-by-step approach to the development of a search strategy for an assignment, using a specific research example to illustrate the effective use of online resources.
Wilson Web (4)	Vodcast (7.45 minutes)	In this longer vodcast module, the librarian demonstrates the sequence of search screens in the Wilson Web Education database, illustrating how students can conduct a successful search.

With each library pod/vodcast, the students were asked to follow the normal LAMS sequence: first, students view/listen to the pod/vodcasts; second, they vote on their interest in and perception of the usefulness of the information and third, they complete the forum activity, which was designed to elicit discussion and provide some qualitative evidence of students' interest in the information delivered through this medium.

The researchers took the students' responses to questions posed in the LAMS Forum to be a measure of their understanding of and engagement with the material. Examples of typical comments against each module are provided (see Table 2).

RESULTS

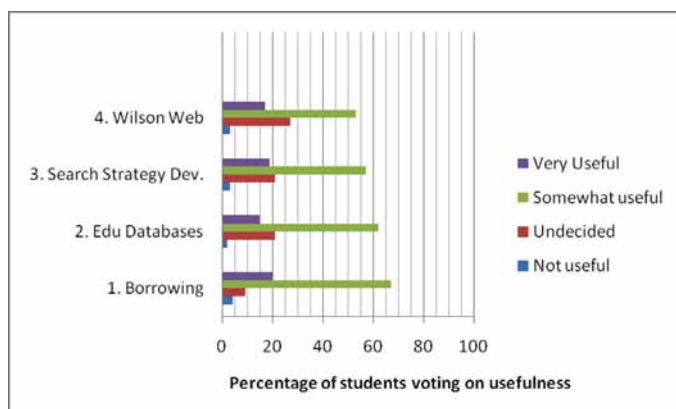
From the 292 students who agreed to be monitored, the results indicate around 23% or fewer who did in fact access the library pod/vodcasts. While there was a gradually declining participation rate (from 23.6% for the Borrowing module to 15% for the Wilson Webs module), the completion rate was relatively steady with approximately two thirds of those who participated completing the modules. Table 2 below indicates participation rates for each module and provides sample comments from those who took part. As noted earlier, the pod/vodcasts were presented in LAMS and embedded in the unit's BlackBoard site to provide students with an interactive platform, which invited peer-to-peer collaboration and discussion of first impressions and the issues arising. However, students showed marginal take-up of the option to receive additional information at the point of need.

Table 2: Podcast/vodcast utilisation

Podcast/ vodcast title	Total students commenced	Total students completed	Sample comments about usefulness
Borrowing (1)	69	41 (59%)	I have borrowed many different books that have assisted me in researching for my assignments, both in the reserve reading section and the main collection. However, I have not borrowed any magazines or newspapers yet.
Education databases (2)	57	36 (63%)	No, I haven't actually used it yet, but now feel after watching the podcast that when I eventually do I will know how to use it.
Developing a search strategy (3)	50	32 (64%)	I particularly liked the consistent use of examples to help us understand the theory behind how to develop an effective search strategy
Searching the Wilson Web – Education (4)	45	27 (60%)	It was very interesting to know that if you use an * next to a word in the search such as observ* that it will include searches for observe, observing, observer, etc

As indicated in (Figure 3), the majority of those who participated found all the modules somewhat or very useful with the basic module on borrowing proving to be the most highly rated.

Figure 3: Student views on usefulness of library pod/vodcast modules



Only seven students (fewer than 5% of students accessing the library modules) posted multiple and regular comments on the forum page. Five students discussed their lack of experience of physical libraries, referring to the past (high school), whereas three made comments about their present circumstances. The following is a further sample of the comments:

- *I had never really been to a library until I started uni, and I find it great for researching and also for studying*
- *I love the peace and quiet [in the library]. I find the library is a great place to do my study. I especially like the small study rooms that are available [in the new library building]. I find it is the best environment for me to study.*
- *I use the library to find books for my assignments. I don't use the internet to find resources, and I guess I just like using books.*
- *I have used the Metaquest database, which has helped me with my research for assignments.*
- *I do use the databases and find that they take up little time and are very easy to use. I would advise others to use them too.*

DISCUSSION

Students new to university life need to orient themselves to a new learning environment and to teaching and learning practices that demand significant autonomy, persistence, and self-motivation. The aim of these learning modules was to provide additional support for students new to university culture, particularly in the acquisition of important information literacy skills. However, based upon the results of this study, the strategy had limited success.

The frequency of student access suggests that as the pod/vodcasts information became more specific, there was decreasing interest, and less completion. The library 'borrowing' module received the most attention, which corresponds with results from a study at New Zealand's Universal College of Learning (Jowitt, 2008).

However, the students showed less interest in database searches, specifically the Wilson Education Web, which could, potentially, provide the greatest assistance to them in current and future assignment work. Student comments retrieved through the LAMS Forum indicate a poor understanding of the role library databases play in assignment research. Although only twelve students posted a comment on the forum page, the feedback received highlights the fact that some students had had little exposure to tertiary libraries and the learning resources and services they can offer. Only one student demonstrated above-average levels of knowledge and thus could be classified as 'library information literate'. She accessed all the modules and provided advice on the usefulness of databases to her peers.

Another key finding of the trial is that few students engaged with the pod/vodcasts. All students were strongly encouraged to access the podcast/vodcast material; however, this activity was deliberately made optional. This can be seen as part of a larger underlying problem, which is well documented, relating to students' readiness for self-management and self-regulation (James, Krause & Jennings, 2010).

Based upon the results of this study, simply providing more information through embedded library modules in a given unit of study is not likely to be an effective strategy. Widening strategic collaboration to include more faculty and conducting targeted tutorial activities in conjunction with the provision of embedded library skills development modules would probably be more effective. Larger-scale, mixed method research may help shed light on the complex issues surrounding effective student support and its relationship with student engagement, motivation, autonomy, and learning success.

CONCLUSION

This paper has described a strategic faculty/library collaboration, which undertook a semester-long trial of introducing library pod/vodcasts into the blended learning environment of a first year teacher education unit. The intention was to accommodate the students' individual study patterns and provide them with choices and directions concerning their authentic and 'just-in-time' learning of library skills. Student access to the media content was monitored through the LAMS sequences within BlackBoard, and this gave some indication of levels of engagement. A series of forum questions were posed in LAMS to spark online discussion and measure the level of awareness of, and engagement with, the library information.

The EDUCAUSE Learning Initiative (ELI), as quoted by Page (2009), lists among the top teaching and learning challenges for 2009, the "development of 21st century literacies (information, digital, and visual) among students and faculty" (p. 13). A series of embedded library modules, such as the ones trialled here, addresses this challenge by pushing literacy support into a regular unit's BlackBoard site (or equivalent), where students will come across them without having to search the library website or exert special effort to find information. This trial revealed reluctance in first-year teacher education students, with few students taking up the opportunity to engage with this form of library skills development.

The aims of the collaboration were threefold: (a) to assist first year students by providing library information bites, (b) to bring library support within the digital home of students, namely the unit's BlackBoard site, and (c) to evaluate the effectiveness of this approach and gauge whether it could be applied more broadly across other units and courses. While the first two aims were met, there remain many unanswered questions in relation to the final aim, such as: What type of content is suited to this approach? Should such interventions (embedded library modules) form a compulsory component of a unit/course? Does this approach suit some levels and disciplines more than others?

This one-semester trial indicated a lack of library awareness in these first year teacher education students, who were still orientating themselves to a new learning environment. The level of student engagement with the library modules was surprisingly low and appeared to drop off in students making use of the media as the content became more specific and demanding. It is possible that unrelated factors, such as problems with BlackBoard access, connection problems, or lack of ICT skills contributed to the generally poor uptake of the support offered. These questions could be addressed in future research. James et al. report that while students' time spent online for study and recreation purposes has increased rapidly over the last decade, students' level of engagement with learning technologies within BlackBoard, WebCT, and Moodle is not encouraging (2010, p.48). It may be that this research provides confirming evidence for this finding, as the effectiveness of embedding library media content in a unit's learning management system, as undertaken in this trial, seems to have been of limited success. Further research is required to gain a better understanding of this phenomenon.

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MODELS AND MANAGEMENT OF STUDENT EMPLOYEES IN AN AUSTRALIAN UNIVERSITY LIBRARY

Frances O'Neil, Jenny Comley

Since 2008, Victoria University (VU) Library has employed 20 or more Student Assistants annually who work on a casual basis for up to 12 hours per week during terms/semesters to staff the Library in Study Hall mode (where there is self-service access to PCs and collections and limited staff assistance). This initiative appears to have been highly successful in both meeting student demand for greater access to the Library and provision of benefits to the students employed.

Within VU Library and Learning Commons spaces, student employees, working in a variety of programs, now account for up to 25% of personnel. Drawing from data and feedback from student employees and their supervisors, the authors reflect on the impact on the organisation of this initiative. In particular, implementation issues have included the cycle of recruitment, induction and turnover; and integration of student employees into the main business and culture of the organisation. The authors also discuss the student employment programs as part of a broader reorganisation of the library spaces.

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THE INSTITUTIONAL CONTEXT

In recent times, Victoria University (VU) Library has experienced significant changes in its staff and support service model. Organisationally, the Library at Victoria University is being transformed as a library and educational support space known as the Learning Commons where educational support services (Library, IT, Careers, and Learning Support) have been drawn together in common spaces as part of a strategy of improving the institution's learner-centredness (Keating and Gabb, 2005). A feature of the development, management, and delivery of co-located educational support services within the Learning Commons has been the large-scale use of student employees, recognising that "many students feel more

comfortable seeking assistance from a peer” (Keating and Gabb, p.14). Working under the governance of the Learning Support Unit, Student Rovers perform peer-to-peer student support roles within that environment, as students-helping-students, from the perspective of their own position as successful students.

Drawing from data and feedback from student employees and their supervisors, this study reflects on the impact of large-scale use of student employees, with particular focus on the Student Assistant program under the governance of the library. The issues experienced in implementing the program have included the cycle of recruitment, induction, and turnover; and integration of student employees into the main business and culture of the organisation at the local and wider levels. The study also situates the range of Library student employment programs in the context of broader organisational directions.

Since the library introduced its Student Assistants program in 2008, the work environment has become more differentiated and stratified with the impact of an increased number of temporary workers. The Student Assistants program aligns comfortably with emerging university initiatives including the Learning in the Workplace and Community policy, which aims to enhance the future career readiness of students.

The focus of the Learning Commons is to foster a culture of learning by creating a place for collaborative, supported learning, with and from peers. Research has indicated that peer-to-peer assistance has proven beneficial to student retention and progress, and that student employment on campus is associated with reduced attrition (Gabb, Milne and Cao, 2006). It seems that coming to class and then going home or to work is less conducive to retention than students studying and then working on-campus. These are more likely to succeed than those working off-campus, particularly for those starting from a lower educational or socio-economic point, as do many VU students with “Students at Victoria University on average come from socio-economic backgrounds well below the Melbourne average...About 75% of students in the University come from families in the bottom half of Melbourne’s socio-economic distribution.” (Messinis, Sheehan and Miholicic, 2008).

MODELS OF STUDENT EMPLOYEES IN UNIVERSITY LIBRARIES

It is the library’s business, as indicated in its mission statement, to provide organised anticipation and response to the teaching, learning and research information needs of the university community. It also provides significant infrastructure (technology, collections, space, and staff) to enable it to achieve this. Librarians have access to a wide range of knowledge resources, aiming to add value and expertise, and simplify complexity, in their provision of services to clients. This service element is a key part of their role and is essential in facilitating the success of the library in effectively connecting people to information. However, less experienced, although knowledgeable, student employees can also play an increasingly important role in augmenting the library’s ability to do this, in part due to the recognition that students feel more comfortable seeking assistance from another student rather than library staff (Head and Eisenberg, 2009).

While a review of the literature indicates that the majority of research has focused on the American experience, many Australian university libraries are also employing students, although there is little documented reflection of this. In addition, the focus of much of the literature has been on the management aspects of student employees and only more recently has discussion emerged around new models of student employment such as those documented by de Jager (2004) and Davidson and Mikkelsen (2009).

AMERICAN EXPERIENCE

The American model of student employment in academic libraries is dominated by the Federal Work-Study (FWS) program (Baldwin, Wilkinson and Barkley, 2000, p.128), where 'minimum wage salary costs are funded. Student employee numbers are significant, turnover is high, and the cycle of recruitment, induction, training, and supervision is problematic. Baldwin et al (p. xvii) also alludes to the lack of attention paid to the "thousands of students [employed] by academic libraries", particularly in terms of the skills needed to manage this important group.

These issues notwithstanding, acceptance of student employees within this funding model is the norm and generally their contribution is welcomed, as typified by staff at the University of Texas El Paso (UTEP) who have, in a videoconference with VU Library staff, indicated that their student employees have been around "forever". With approximately 112 students (compared with a staff population of around 100), providing support across a range of library functions in a single building library, their employment is acknowledged by library staff as essential to enabling effective provision of library services.

More recently the literature evidences increased usage of student employees as 'equal partners' (a collaborative environment of learning and working) within a student centred approach to staffing of academic libraries (Zink et al, 2010). In 2008, the University of Nevada, Reno opened the Mathewson-IGT Knowledge Center with its @One service desk staffed in a weekly cycle of "302 hours of student assistance, 57 hours of library staff/faculty time, 12 hours of IT professional staff time, and 5 hours of TLT professional time." (Zink et al, p.5). Whilst acknowledging economic imperatives as a driving factor in their staffing models, this academic library also recognised the value of employing student assistants who "have not only grown up in the digital information world, but whose very lifestyle has been defined by these innovations." (Zink et al, p.5). In another example, the UC Merced Library, a new library service at the University of California, opened its doors in 2005 using student employees to staff its primary, public service points (Davidson and Mikkelsen, 2009). These appear to be successful instances where shared learning is a major outcome, repositioning the library as a partner with users in service and resource provision rather than a single authoritative provider.

Interestingly, until recently, the literature revealed little of how student employees viewed their employment in libraries. Yang's survey of library student workers at Texas A&M University indicates the importance to student employees of

two-way communication, mutual respect, and supervisor feedback (Yang, 2006). The illuminating comment “Thank you for taking the time to listen to student workers” (Yang, p.62) emphasises the importance of acknowledging the experience of the students themselves in this model of engagement. Another case study of the @One service and staffing model at the University of Nevada elicited the following comment from a student employee

The ranking is blurred. I like how much teamwork there is going on. I really like how everybody treats the student employees like someone who would know something as opposed to ‘Oh, you’re just a student worker’.” (Zink et al, p.8).

Wu (2003) considers this shared learning and acknowledgement as critical “No matter whether it is recruitment, training or a new round of hiring, a win-win strategy that genuinely cares about what can be done to benefit both parties will achieve the best results and leave ‘goodwill’ that will extend well beyond the brief tenure.”

AUSTRALIAN EXPERIENCE

In a survey of student employment in Australian university libraries conducted late 2009 by the Council of Australian University Libraries (CAUL), 18 libraries (or 45.0%) indicated they employed students. Of these libraries, the majority were based in NSW (33.3%), followed by Victoria (22.2%) and Queensland (22.2%). Most commonly, students were employed as shelvers, although around half of the libraries employing students also used them in a range of other roles (see Table 1).

Table 1: Student employee roles in Australian university libraries

Task	No. of libraries	Percentage
Shelvers, circulation support	14	77.8%
IT/ICT including roving support	8	44.4%
Project work/backroom functions	3	16.7%
Extended hours staffing/student-to-student support	3	16.7%
Trainee/placement	3	16.7%

Australian university libraries appear to be expanding the role of student employees, involving them in backroom/project work, IT support, trainee, and placement programs as well as in provision of extended access and student-to-student support. In the majority of instances, students are under the library’s employ. In other cases, students are employed by, for instance, IT and deployed within the Library to provide IT support. This model reflects some of the early information commons models of student employment to support increasing IT-related activities in library spaces (De Jager, 2004).

The trend of university libraries moving to information or learning commons appears in many cases to have been accompanied by an expansion of the role of student employees. A particular, if complex, feature of the models in use in VU Library and its learning commons environment is that alongside the students employed by the library, there are students who are employed and supervised by partner groups (IT and Learning Support) co-located in the learning commons.

The literature confirms that management aspects including recruitment, training, supervision, and other administrative overheads associated with the inherent high turn-over of contract student employees were significant factors in the workload associated with the employment of students within academic libraries in all environments (Gerlich, 2002). Integration of student employees into the culture of the organisation, to facilitate effective communication as well as contextualise their work within normal library activities, appeared to be less of an issue.

MODELS OF STUDENT EMPLOYMENT IN VU LIBRARY

Within VU Library, student employees account for up to 25% of staff. Students are employed under the following programs:

- the Student Assistant program which is funded by the library and annually employs around 20 students who work within the library on casual contracts during extended hours, providing peer-to-peer support;
- the “Rover” program, which is funded by Learning Support and annually employs 30 students on casual contracts who work in the learning commons spaces providing peer-to-peer support;
- two work-integrated learning or trainee posts (“Co-Ops”) also funded by the library as short-term contracts of less than one year, and
- project partnerships for up to 10 Library Studies student trainee placements.

As mentioned previously, the implementation of the Library’s Student Assistant program has highlighted a number of issues associated with large-scale student employment, and this experience is the main focus of this study. The other programs have not had the same organisational impact within the library and are only briefly discussed. The implementation issues include the cycle of large-scale recruitment, induction, and turnover, as the literature would suggest, and also, the integration of student employees into the main business and culture of the organisation at the local and wider level.

THE STUDENT ASSISTANT PROGRAM

In 2008, as a result of student feedback gathered via a series of focus groups, the library responded to concerns regarding availability by introducing extended hours of access at eight of its eleven campus libraries. In order to staff these additional opening hours, student assistants were employed. The student employees were essentially new positions and supernumerary, or in excess of normal staff numbers and engaged for the additional work. The decision to

employ students was seen as an opportunity to align with emerging university initiatives noted earlier, and the library was able to successfully put forward a business case for additional funding. Key library staff, including supervisors, were closely involved in the process and supported the employment of students in order to facilitate the extended access hours.

The program's intention was to provide more hours of access to library facilities and resources for students, particularly part-timers, and provide a basic level of library and IT support and troubleshooting, during the non-peak times of late evenings and weekends, under "study hall" conditions. The study hall concept is based on a self-service model where students undertake their own cataloguing searching, borrowing, placing and collecting holds, and making renewals, photocopying, and printing.

The implementation of the Student Assistant program heralded a significant operational change. The library took a centralised approach to the recruitment, selection, deployment, and rostering of a large pool of student employees across eight campus libraries. The use of student employees required a level of flexibility, particularly in relation to rostering and hours worked, in recognition of the fact that a student's academic progress and success is their primary task. While this might not appear too difficult, particularly with regularly employed staff, in the pilot year of the program the library encountered unprecedented instances of closure because some student assistants failed to come to work when rostered, primarily because they forgot or confused the roster. While this has become less of an issue in the second year of the program, rostering changes and unexpected turnover remain problematic. The library is investigating options to improve the situation, including online rostering systems. It has also introduced, as part of the induction program, conversations around role responsibilities, expectations, and consequences in order to build motivation.

Student assistants were initially recruited broadly via the university's student recruitment service and word-of-mouth. A role statement, a brief description of the role and requisites, was used rather than a more formal, standardised university position description. A minimum requirement was that students had successfully completed the first year of their course.

In the second year, half the initial intake returned, taking up the option of returning and providing continuity and support for new student assistants. The question of limiting the maximum period of a student's employment is a matter still under consideration. Students are now recruited from target groups including post-graduate students and Library Studies students. After the initial pilot year of the program, it was clear that a high level of maturity was required of student assistants who were often working on their own. In the second year, the combination of continuing students, Library Studies and postgraduates appears to have delivered a more mature student employee.

Student assistants currently work singly, in pairs, or paired with a library staff member, in providing extended hours of library service, primarily evenings and weekends. When no library staff member is on roster, student assistants work in Study Hall mode. Employed on a casual basis, student assistants do not have staff

access to University or Library systems. Matters requiring system access can be referred to a campus library with a library staff member on duty who will assist in resolving the issue.

The use of student employees has provided opportunities to leverage their experience as (successful) students for natural peer support resulting in previously acknowledged, known benefits in student retention and success. As a student assistant wrote in her shift report

There was a mature age student who seemed overwhelmed by just thinking of the idea of essay writing and referencing. We sat at the discussion tables and had a long chat. She seemed very anxious about this essay she had been told she'll have to write...I told her that being a mature age student with a family... myself I understood what she was going through. From then on she realized we had much in common, she became more relaxed and I explained how I went about tackling an essay question as well as telling her about some of VU's services... She was very grateful and left with a big smile.

This parallels the trend identified by de Jager (p.103) that the simple provision of students in the library work space has the potential to enable the development of mentoring relationships.

Reflective feedback from student assistants as to how they viewed their role elicited the expected statements regarding valuable work experience, skill improvement, and the ability to combine work and study. As part of the annual employment cycle, the library provides the student assistants with an opportunity to reflect on the program and provide feedback in a facilitated session. The session also includes a careers advisory workshop to enable students to reflect on the skills they have developed through the experience and how to leverage this in the world of 'real' work. Remuneration has also been described as "good student wages."

Some students also commented indirectly on the collaboration, networking, and involvement in university life they experienced, in line with Wu's perspective of a 'win-win' situation wherein both parties [organisation and student] achieve and leave "goodwill" that will extend well beyond the brief period of employment (p.152). As a student wrote of his experience

Through this role I have become friends with a number of students who I have seen but not spoken to in class. I applied to be a Student Assistant to stay connected to campus life while studying online. I have enjoyed contact with students and made friendships with students from different faculties. I really enjoy the community that can be developed through the student assistant role. I love being able to help out fellow students... I also like having a say on what goes on in the library.

The student assistant program required a new staffing model, where a centrally coordinated manager deployed staff across a number of campus libraries. It

brought with it a significant administrative overhead during the implementation phase, as well as subsequently in terms of ongoing recruitment and training; this workload necessitating the employment of a full-time library staff member to coordinate the program.

This change to employing temporary student staff has also required a cultural shift in the library. The introduction of at first Rovers, then Student Assistants, meant that the Library went in one bound from little or no casual/student employees to a point where they represented around 25% of staff. In addition, and based on a needs analysis of what students valued/used (students indicated they valued access and technical support), library management decided to realign the level of support during non-peak times. Initial staff perception of the change was that it represented a downgrading in terms of the level of support expertise. Most concern came from para-professional staff and was based around job-security. The reality is that no jobs have been directly affected, with the student employee roles being in addition to existing staff levels, which has meant that the concerns have lessened over time.

The program has given rise to new and valid issues of implementation, particularly around the question of what things are handled by the coordinator, what by the campus librarian – in general, who does what? Thus role clarification has been necessary for all the aspects of the program including administration, communication, publicity, recruitment, supervision and systems. In response to initial experiences, other changes to the program included development of library-wide emergency/backup procedures, establishment of an intranet space for student assistants, more advertising of study hall times and conditions, exit strategies and careers counselling, and an improved training program recognising that the study hall service model requires a level of maturity, problem-solving, and customer service that necessitates better support in terms of the induction and training provided to Student Assistants at the point of intake.

The introduction of student employees has been a ground-breaking initiative at VU. Despite the fact that other Australian university libraries have had student employees for some time, it has not been widely adopted in Victoria. Full time staff had mixed responses to the initiative: they're taking our jobs; but also indicated that they think the student employees are great: we appreciate their perspective - they give us a nice dose of reality sometimes; for some it's their first real job... and certainly supervisors have been quick to take advantage of this reasonably available pool of casual staff. Now the student assistant program is approaching its third year, there appears to have been a change over time in the perceptions of library staff, particularly an appreciation on a practical level of the flexibility student employees provide in resolving rosters: they are often on-campus and prepared to work a few hours at short notice.

In terms of cultural change and acceptance of student employees on this scale, pairing library staff and student employees seems to bring real benefits. Selected library staff are paired with student assistants in a "buddying" arrangement and, as a result, are providing workplace modelling and mentoring that no amount of formal training will offer, including coaching in problem-solving through

feedback and encouragement. Through this, and involvement in wider library work routines, student employees' inclusion in the broader library community has been facilitated.

THE ROVER PROGRAM

Rovers are recruited informally from within the student body by the Learning Support Unit again using a brief and informal role description rather than mainstream university recruitment processes. There is a high degree of similarity in the role description of Student Assistants and Rovers, but the latter work weekdays within the Learning Commons in paired four hour shifts, when there is a full complement of both library and other Learning Commons staff to provide ongoing support and assistance with queries, technical assistance, and issues of appropriate referral. The level of responsibility and accountability is significantly less than that held by the Student Assistants, frequently working on their own.

Indeed, the Learning and Language Support coordinator of the Rover program has described his perception of a tension inherent in the Rover role, originating from a view that characterises library work as service work as opposed to their view of the Rovers as 'students in a classroom [that happens to be the Library].'
As the Rover coordinator noted

I do not see the primary definition of the Rover program as being a 'student employment program'. For [us] it is students supporting students learn program, a peer mentoring program where students who are peers or near peers help their fellow students. This is why [we are] very uncomfortable with Rovers or Peers being framed as 'Students as Staff', because for us they are 'Students as Students' programs. Both leverage 'student-ly' experience and know-how, not apprenticeship into a body of professional expertise, as the authority of Rover advice and support.

Subsequently Rover training, since the program's commencement in 2007, has shifted to focus on a train-the-trainer approach. Commencing Rovers work with a lead Rover who in turn provides on-the-job support to his or her peer Rovers. Training has been described as "very short" and "front-end". It is the situational experience which provides the learning between Rover and student, not knowledge acquired through formal training.

As Rovers are not employed by the library, but rather another unit within the Learning Commons, library staff are less concerned with the employment model and more with the integrity of the training and knowledge base of student Rovers. Acknowledging the 'student as student' concept of learning together without a background knowledge of policies and procedures providing support, has proven difficult for some library staff to embrace. However the program has been a successful one with positive feedback from the student body and the program has been expanded in 2010 to provide student mentoring within specific subject areas. Again, this program is based within the library during core business hours.

CO-OP STUDENTS PROGRAM

Co-op (or co-operative education) Students are normally third year students undertaking a compulsory unit in their business undergraduate program. Through this unit, they gain academic credit for workplace learning and employment, as well as acquire relevant professional work experience while earning a salary. VU Library has been taking Co-op Students since 2006. The Co-op Students come from non-traditional areas for the library, in particular from Marketing/Events Management and Information Technology courses. In what are essentially trainee positions, and unlike the Student Assistants, the Co-op Students work to a formal position description appropriate to the area. Also unlike the Student Assistant program, Co-op Students are normally employed on a 12 month contract and work longer, more standard hours in positions that are well-integrated into library business and operations including staff-level access to relevant university and library systems. They are a long-standing example of a successful student employment model within the library at Victoria University.

Recruitment is undertaken via the Work Integrated Learning Coordinator in the Faculty of Business and Law, who seeks applications from students enrolled in the Co-Op subject. Established HR selection policies, whilst not required by the University for casual employment, are followed in terms of interview, selection, reports and feedback. Workplace induction and training occurs in-house.

Co-Op student placements within the Library's Electronic Information Services (EIS) division, for example, come to this employment highly skilled because the work is directly associated with their formal study within the School of Information Systems. Each member of the EIS support team works with the Co-Op student in their discrete area and close supervision is provided. As well, the student is aligned with a staff member depending on work requirements, and all EIS personnel have mentoring as an element of their position description.

According to the EIS manager, the employment of Co-Op Students provides EIS with an injection of people who are in the beginning stages of their professional life – they inject excitement, new ideas, new perspectives, and new personnel into established group dynamics. She also noted there is a level of work-readiness apparent with Co-op Students. It is noteworthy that a majority of the Library's Co-Op Students have gone on to other positions within the University, suggesting that the Library has provided a positive work experience and contributed to further career success.

PROJECT PARTNERSHIPS PROGRAM

As part of its professional role Victoria University Library provides placements for students undertaking professional and/or para-professional studies in Library and Information Management. Victoria University has a School of Library Studies which delivers para-professional Library Studies programs as part of our commitment to the LiWC program (as identified earlier). Priority is given to those library studies students requiring a work placement to fulfil the requirements of their course.

Traditionally, these placements have been undertaken in block mode. From 2008, in alignment with new student employee programs and a commitment to both organisational value and student career development, the library now provides part-time, semester-long project partnerships where students work on a project developed together with library staff, offering both student learning and value-added productivity to the library. In this model, compared to the block or three week placement model, the student has time to develop and reflect on their learning and experience, promoting learning whilst performing.

Success of the project partnership model is dependent on the validity of the project to both student and organisation. As with the Co-Op model, students bring skills from their formal study and apply them in a workplace ethos of shared learning where a project brief is proposed, aligned with library strategic objectives, and benefits and deliverables identified. Management of the project is via-appropriate library personnel and project team members. The success of the project is measured by the outcomes and stakeholder impact and is measured by the learning shared and applied by both student and library.

Unlike the Student Assistant, Rovers, and Co-Op programs, project partnership places are not paid positions, but rather an essential component required for successful course completion. To date, requests for placements have been via individual application and/or Library Studies departmental requests. Training and supervision is one-on-one, on-site, and student progression is monitored, evaluated and reported according to course requirements. Library staff are supportive of this form of student engagement as it is controlled, outcome driven, has a finite life, and supports the profession.

CONCLUSION

As mentioned above, VU Library's student employment programs are situated in broader organisational directions. These programs emphasise adding value to the organisation and to student career development. For example, the Library's Student Assistant program has been critical to the significant success of extending access to the library out of normal hours. Professional development and training in areas including customer service and interpersonal skills have helped enhance student career prospects.

The library has a vested interest in both the success of the student in his/her studies but also in their contribution to the library's business and reputation. Recruitment, training, and supervision have been identified as success factors to facilitate student employees' success and engagement in the library workplace and for better support all round of student employees. Supervising students is not the same as supervising regularly employed staff because of the need to consider the balance of work and academic study. The study has indicated that student employees need the same, if not more, attention in terms of workplace induction and training, ongoing supervision, feedback and encouragement, to be effective and confident in performing their role.

Some of the critical factors identified for the success of student employees within VU Library include clarity around the scope of the role – why they are there in the library and what they physically do - this is important not only for the Student Assistants, but also the students they are helping. For example, in 2010, Student Assistants will be provided with uniforms that clearly identify them as “students who can help”. Another factor is their motivation, in a shared workplace and as university employees responsible for quality service to clients, which the library continues to address through periodic training as well as review sessions.

Within the library, there was early recognition of the challenge to identify effective information and communication systems in order to interact with student employees whose daily contact with the mainstream library might be peripheral. It has been observed that the three student employment models use different communication platforms: Co-Op Students have full staff access to email and the library intranet, that is, the most integrated; Student Assistants have access to Google Groups and a Student Assistant space on the library intranet and occupy a kind of middle ground, whilst Rovers use only Central Desktop which is a communication platform similar to Google Groups that does not interact with university systems, being the least integrated. The systems reflect what the different programs are trying to achieve in terms of the level of integration into the mainstream workplace and work culture. The Co-Op model is the one that currently fits most seamlessly into the library’s structure and operation and it uses the most conventional means of communication. The other two models are more experimental and evolving, somewhat like their place within the organisation, which is reflected in the communication platforms.

The implementation of both the Rover and the Student Assistant programs represented significant cultural change for the library. While in both programs the student employees were in addition to established staff levels, there was still some staff opposition to the initiatives, particularly around perceived job security concerns. Over time, there now appears to have been a change in the perceptions of library staff in relation to the Student Assistant program. In particular, there has been a growing appreciation, on a very material and practical level, of the flexibility student employees provide in resolving rosters; they are often on-campus and prepared to work a few hours at short notice.

From a more strategic view, the shared learning facilitated by the communication platforms mentioned above, concentrates understanding of the diverse needs of student users of the library. Student employees in smaller campus libraries have delivered clear benefits in leanly staffed but also highly integrated workplaces where people do a bit of everything and communication is less filtered by layers of management. It has enabled extended opening hours and freed up more expensive library staff for core hours service provision. The employment of student employees has enabled the library to address changing needs in library service and support provision. The library, in acknowledging the value of students-supporting-students, is now considering how it can expand the role of its Student Assistants as enablers in learning and providing one-to-one support for students; that is to leverage the capacity student employment programs offer the library in augmenting its services.

This study of student employment models within an Australian university library concludes that, for any program model to be successful, student employees need high levels of cyclical, workplace induction and training, ongoing supervision, feedback and encouragement, and structured reflection, to be effective and confident. Discussion to ensure clarity on what the library needs and where student employees fit, together with training and accountability discussions, will provide student employees with the best opportunity and support, and the best strategic outcomes for the library.

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LIFE IN THE “REAL WORLD”: A PROFILE OF QUEENSLAND UNIVERSITY OF TECHNOLOGY LIBRARY AND INFORMATION SCIENCE GRADUATES.

Tracey Powell and Helen Partridge

A graduate destination survey can provide a snapshot in time of a graduate’s career progression and outcome. This paper will present the results of a Queensland University of Technology study exploring the employment outcomes of students who had completed a library and information science course from the Faculty of Information Technology between 2000 and 2008. Seventy-four graduates completed an online questionnaire administered in July 2009. The study found that 90% of the graduates surveyed were working and living in Queensland, with over three quarters living and working in Brisbane. Nearly 70% were working full-time, while only 1.4% indicating that they were unemployed and looking for work. Over 80% of the graduates identified themselves as working in “librarianship”. This study is the first step in understanding the progression and destination of QUT’s library and information science graduates. It is recommended that this survey becomes an ongoing initiative so that the results can be analysed and compared over time.

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INTRODUCTION

In June 2008, a survey was conducted to determine employment outcomes of library and information (LIS) science students who graduated from the Queensland University of Technology (QUT) between 2000 and 2008. This paper will discuss the results of this survey. It will highlight where the QUT LIS graduates are living, working and the types of positions they hold. The paper begins by exploring the significance of graduate destination surveys, and how they may be used to help inform and determine future curricula development, forecast future trends in a profession, as well as help structure professional development. This is followed by a brief review of the relevant literature exploring graduate destinations survey within the LIS field. The paper will then discuss the administering of the QUT survey, including how the questions were formulated and tested. Finally the paper will discuss the results of the survey and provide recommendations for future steps.

SIGNIFICANCE OF GRADUATE SURVEYS

Graduate destination surveys are conducted in all fields of academic study to determine where and how graduates have used their degrees in relation to their career prospects and progression. The surveys show where graduates are at a specific moment in time. They provide useful data that can inform educators, past, present and prospective students, as well as industry as a whole. From an educational institutions' perspective, graduate surveys can help inform the future direction of curriculum development. The data gathered from surveys can also help those responsible for delivering professional education programs to determine existing and future trends in employment outcomes so they can develop courses that will more effectively meet the demands and needs of the industry they support.

Graduate destination surveys may also help to inform career and employment decisions for those considering entering a particular profession or those currently studying in the field. Having the data from these surveys available to current or prospective students can provide a realistic overview of where a given degree can take them, and the kind of work or money they can reasonably expect to achieve. Graduate surveys can also show professional development opportunities for those already working in the industry, as well as inform the profession of where graduates are finding employment and identify current work force trends in an industry.

LIS GRADUATE DESTINATION RESEARCH

Genoni and Smith (2005) completed a survey of library and information management graduates of Curtin University of Technology. The main objective of this survey was to determine where past graduates were in their careers, the level of professionalism they had achieved, and their employment history. The longitudinal study compared data collected in 1988-1992 and 1993-1997, with the results obtained from the most recent survey of graduates which included

the 1998-2002 cohorts. Results from the survey determined that the 1998-2002 cohorts had better employment graduate outcomes than graduates surveyed in the previous studies, and that graduates found employment in areas outside traditional information related library positions.

Heazlewood, Pymm and Sanders (2006) administered a graduate destination survey of Charles Sturt University's library and information management graduates who completed the course in 2003-2004. The purpose of the study was to determine the employment status of graduates, evaluate the effectiveness of the university's course offerings, and gauge student perceptions on how the courses had helped graduates find employment. The study found that the majority of graduates felt that the course gave them the skills needed to obtain positions in the LIS sector, and that graduates were mainly employed in traditional library roles. It was suggested however, that this was contrary to the claims made by some that a degree in LIS could take graduates into fields of non-traditional library work, as this was not apparent in their findings (Heazlewood, Pymm and Sanders, 2006).

The University of Sheffield conducts library graduate surveys on a regular basis. According to Loughridge (2003) these surveys are undertaken because of the introduction of research and teaching quality assessment and procedures, and with the struggle to attract students and funding, course providers need to conduct and value the regular collection of research data from graduate surveys. It is also suggested that it is important for institutions that deliver professional educational programs regularly review the activities, issues and priorities of professional practitioners, not only to keep aware of new and developing employment trends, but also to make sure that they are meeting the requirements of professional accrediting associations (Loughridge, 2003). The data collected from these studies revolve around graduate employment history, professional development, work experience, graduate perceptions of the program, and graduate current educational needs and priorities (Loughridge, 2003). The studies concluded that graduates commented favourably on the quality and relevance of their studies and that the factors affecting job satisfaction varied, depending on job destinations and employment sector, as did the commonest causes of job dissatisfaction.

Hallam (2008) conducted a nation-wide survey into the library and information services workforce in Australia. This comprehensive study of the LIS field aimed to provide insights into the people who work in the area, and gathered information on new graduates, where they were working, their educational qualifications, their job titles and their incomes. The study found that almost one quarter of the survey participants were working in university/academic libraries, while only 2.0% stated they worked in non-traditional library settings. Over eighty-five per cent of the respondents were female. Almost half of the respondent (48.3%) possessed a Graduate Diploma qualification whilst 14.7% possessed a master by coursework degree (Hallam, 2008).

Willard, Wilson and Cole (2003) reported on the employment outcomes of graduates between 1997 and 2001 of the library and information studies courses offered at the University of New South Wales. These studies are conducted

as part of a monitoring process to help evaluate the library courses, inform development's of the curricula, and to determine new and emerging trends in information and knowledge employment. The study concluded that the program offered by UNSW was designed to give students skills for a variety of information work, and as a result this was reflected in the data collected. They found graduates working in various roles that required differing skills, with over 50% of stated job titles not having the term 'librarian' or 'information officer' in the title. The findings suggested that this reflected the changes in information management, with an increased demand for web development skills, while there is a decline and less emphasis on more traditional library functions such as cataloguing (Willard, Wilson and Cole, 2003). The study also found that for positions that were considered non traditional library work, where the title of 'librarian' or 'information officer' was not used, were paid better than those working in positions considered to be more traditional library roles.

In the USA a major study funded by the Institute of Museum and Library Services has been investigating the career patterns of graduate of LIS programs (Gard Marshall, n.d). Over 500 graduates took part in an online questionnaire. The study found that over 94% of respondents were employed. Although the study did not provide details on the nature of the employment (i.e. full time, part time, casual). The majority of respondents indicated that they were working in a library setting (79%) with a small number (14%) indicated that they were working in a non library context but using their LIS skills and knowledge. Of those working in libraries, 41% were working in school libraries, 28% in academic libraries, 17% in public libraries and 14% in special libraries. The project is due to finish at the end of 2010.

An Australian study has just been funded by the Australian Learning and Teaching Council (Partridge, 2010). Lead by the Queensland University of Technology the project aims to establish a consolidated and holistic picture of the Australian LIS profession and identify how its future education and training can be mediated in a cohesive and sustainable manner. A key part of this project will be a survey of LIS students and recent graduates. Results will be available later 2010/early 2011.

THE RESEARCH PROJECT

The Online Questionnaire

Survey is one of the most widely used research methods and as noted by Dane (1990) is frequently the research method with which the general public is most familiar. The survey method involves "obtaining information directly from a group of individuals" by posing questions (Dane, 1990, p. 120). The questions may be presented orally, on paper or in some combination. The survey method relies upon the researcher and the participant working together to collect the data: the researcher asks the questions and the participant answers (Dane, 1990). To determine employment destinations of past Queensland University of Technology (QUT) LIS graduates, an online questionnaire was developed for the

current study. The questionnaire design took advantage of the work previously done by Genoni and Smith (2005), Heazlewood, Pymm and Sanders (2006), Hallam (2008) and Willard, Wilson and Cole (2003). Most of the questions from these studies were adapted as they had been previously tested. Adapting the questions from these studies allowed the QUT study to be compared with these other related studies and therefore to measure changes over time. In addition to adapting questions from previous studies, questions regarding employment stability, and the likelihood of further education were added. This resulted in a 30 item online questionnaire being developed. Most questions required single answer responses, however, there was also scope for respondents to comment further if they wished.

Once the questionnaire was developed, it was piloted during December 2008 and February 2009, to help determine if the questions were easily understood, fulfilled project objectives and if errors had been made. The pilot instrument was administered to those identified as a typical sample of the target population. The responses obtained during the pilot were evaluated and comments were reviewed, and the questionnaire was further refined and administered in the main study. SurveyMonkey (<http://www.surveymonkey.com>) was the online system used to administer the instrument. A copy of the instrument is available on request from the authors.

Questionnaire Administration

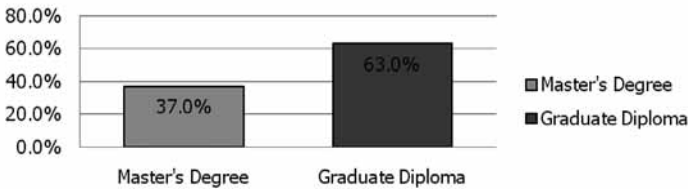
The QUT graduate destination questionnaire was developed to obtain information from past LIS students to help determine where they are now. The survey was directed at QUT library graduates who graduated between 2000 and 2008 with qualifications that were recognised by the Australian Library and Information Association (ALIA). From 2000 to 2004 the qualification was a Graduate Diploma in Library and Information Science. From 2005 to 2008 the qualification was the Master of Information Management. The questionnaire was administered via SurveyMonkey, and was open to QUT LIS graduates from July 1, 2009 to July 12, 2009. After gaining ethical clearance from QUT's Office of Research Ethics, the questionnaire was distributed via the QUT alumni elist, the ALIA Newgrads elist, and the ALIA QLD elist to identified graduates. As it was posted to elists, a letter explaining the criteria of those of who could participate, along with why the study was being conducted, confidentiality issues and consent was attached. Data collected from QUT's admissions centre revealed that the number of graduates fitting the criteria (i.e. graduating with an ALIA recognized degree between 2000 and 2008) was 214 (156 graduates had completed the Graduate Diploma in Library Science and 58 graduates completed the Master of Information Management). Seventy-four graduates completed the questionnaire, providing a response rate of 35%.

FINDINGS

Qualifications

Figure 1 shows that of the 158 Graduate Diploma students who completed their course between 2000 and 2008, 46 responses were received, while 28 responses were received from those who completed the Master of Information Management, out of a possible 58 responses.

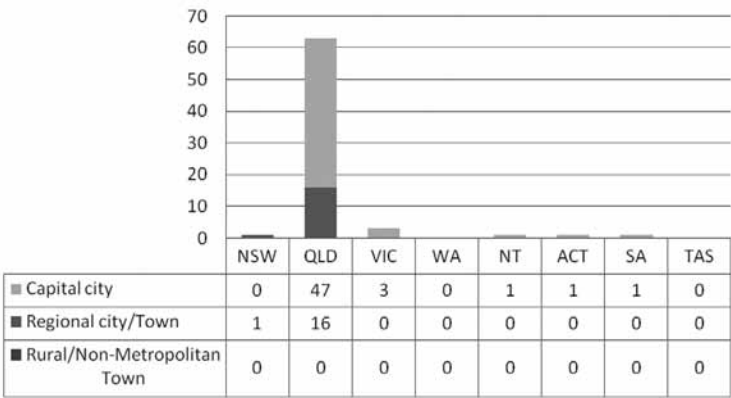
Figure 1. Response by qualification



Place of Residence/Work

It was felt that getting an idea of the geographical location of QUT graduates would help to determine if graduates had moved away from Brisbane. The results (see Figure 2) show that the graduates who participated in the survey are mainly based in the Brisbane area, although two respondents indicated that they lived and worked in London. This could possibly reflect the nature and structure of the QUT LIS qualification. Until 2008, the LIS course was offered on a purely internal basis, where students had to attend classes on campus. The structure of the program has since changed, and most of the subjects are now offered both internally and externally. Future research could possibly see that the strong Brisbane response rate change a little as the program is taken up by those who live outside the region and study online. The study also revealed that 72% of all respondents live and work in a capital city. This is consistent with Hallam's (2008) study of LIS workers in Australia which found that 70.8% of the LIS workforce live in capital cities (Hallam, 2008).

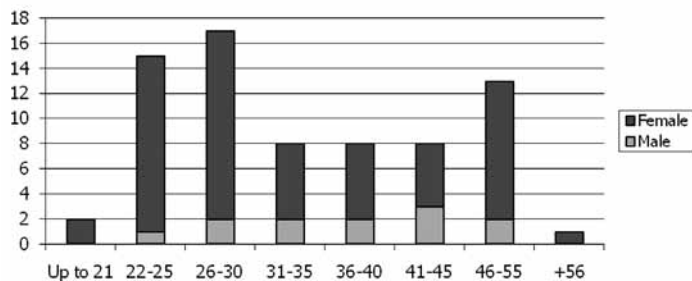
Figure 2. Graduate location



Age and Gender

Figure 3 shows the breakdown by age at course completion, and gender of survey respondents. The survey showed that the gender of graduates was consistent with the trends in the library profession. Hallam (2008) conducted research into the library profession in Australia, and concluded that the Australian LIS workforce was female dominated with females making up over 85% of their respondents. The findings from the current study replicate this finding. The findings also indicate that there may be a shift in the age of workers in LIS. The data found that the QUT's LIS courses are not as Genoni and Smith (2005) suggest, “attracting a decidedly mature age group of students” (p.340). This is also interesting to consider in light of Hallam's (2008) study that found that almost 50% of librarians are over the age of 45.

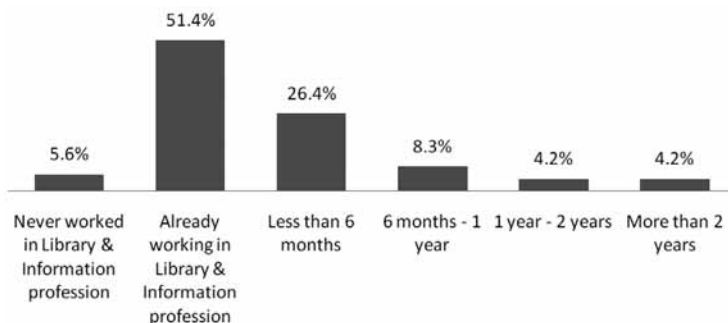
Figure 3. Age and Gender at completion of studies



Employment outcome after graduation

How long it took graduates to find work in the library and information profession was of interest to the researcher. The results (see Figure 4) indicate that just over half the respondents to the survey were already working in the LIS profession during their studies, and were obtaining qualifications for further their careers, or to obtain the formal recognition for positions they were already in. For the small percentage who have never worked in the LIS profession (4 respondents) they indicated that they found it hard to find employment without the necessary experience. One respondent indicated that studying in this field was a back up if they were forced to change careers, but they had no desire to work in the library profession as the remuneration for the qualification was very low.

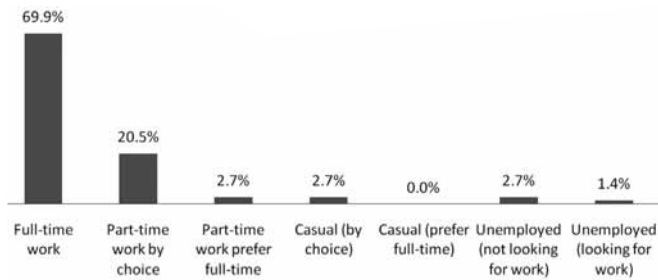
Figure 4. How long it took graduates to find work



Current employment status

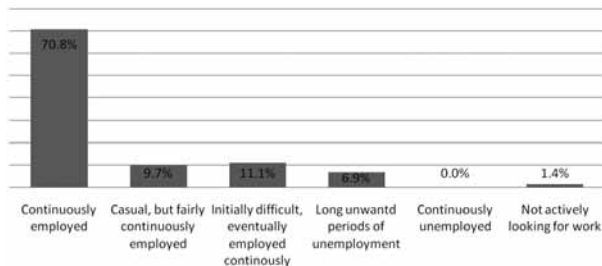
Questions were asked of respondents about their current employment, such as their work patterns, and their employment continuity. Figure 5 reveals that almost 70% of the graduates who participated in the survey were working in a full-time capacity. While only 35% of QUT LIS graduates took part in the study the results are consistent with the results found by Hallam (2008) where the full-time employment status of the LIS workforce was found to be 64.2% (Hallam, 2008). The study's results are also consistent with the research done by Genoni and Smith (2005), who found that 70.5% of Curtin University library science graduates were in full-time employment, and Heazlewood, Pymm and Sanders (2006) research which concluded that 66.7% of LIS graduates from Charles Sturt University had found full-time employment. The study's results paint a promising picture for QUT LIS graduates. Assuming that the number of graduates employed on a full-time or part-time by choose basis represents 'good employment indicators' (Genoni and Smith, 2005), the results from the QUT survey indicates that over 90.4% of graduates survey had found gainful 'good employment' in the LIS profession. This is a good outcome for both the university and the graduate.

Figure 5. Employment status



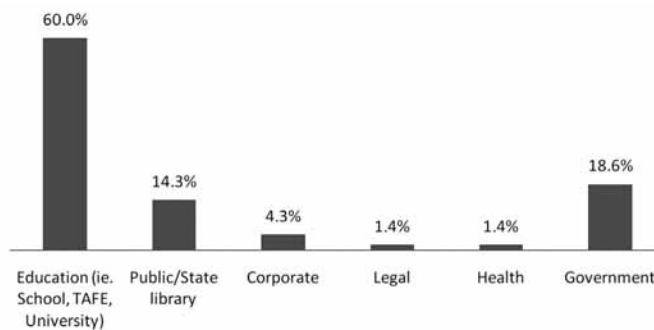
In regards to employment continuity, the research found (see Figure 6) that the majority of graduates were in steady employment, although it is not known how many are in permanent or contract positions. This is consistent with the findings by Hallam (2008) who found that 64.2% of participants in the LIS workforce study were employed on a full-time basis. It is also consistent with research from Charles Sturt University (Heazlewood, Pymm and Sanders, 2006) which found that 87.2% of their graduates are employed on a permanent/tenured basis.

Figure 6. Employment continuity



To determine the sectors that graduates were working in, they were asked to select from a list of six different types of organizations. The results revealed (see Figure 7) that 60% of graduates were working in an educational sector, 14.3% working in the public/state library sector, 18.6% working in the government sector, 4.3% working in the corporate sector, and 1.4% were working in the legal and health sectors respectively, and four respondents did not answer this question. It was assumed that the list of employment sectors that graduates were working in when they completed the survey would not account for the diverse industries open to them, there was an option for respondents to enter sector information that was not on the list. This resulted in three responses. One graduate commented that they were working in the government sector, but only until the end of June, while the other two respondents stated that they were unemployed. It is recommended that in future versions of the survey that the ‘education’ category is expanded out into 3 categories of ‘university’, ‘TAFE/VET’ and ‘school/teacher librarian’. It is noted however that QUT has a separate qualification offered specializing in teacher librarianship in the Faculty of Education.

Figure 7. Sector graduates are currently employed in

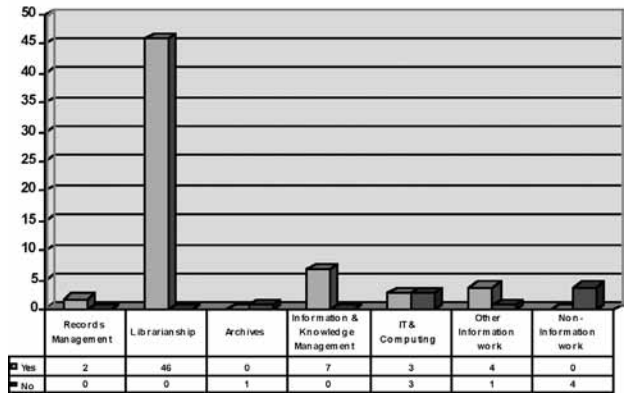


Employment Descriptions

Current research into the employment outcomes of LIS graduates in Australia revealed that they are working not only in libraries, but were also employed in non-traditional information fields (Hallam, 2008). However determining what may be considered traditional or non-traditional information work can be hard to define (Willard, Wilson and Cole, 2003). To help determine if this was consistent with QUT graduates, they were asked to comment on the type of work that they do and their current job titles. They were also asked about their professional status in their current employment, and whether they were employed in a supervisory capacity. Figure 8 displays the responses received when graduates were asked if they were currently working in the library and information profession, and to describe the field of work they were employed in. The data revealed that over 84% of the survey respondents said they were currently working in the library and information profession. These covered job descriptions such as Records Management (2.8%), Librarianship (64.8%), Information and Knowledge Management (9.9%), Information Technology and Computing (2.2%), and Other information work (5.6%). One graduate indicated

that they were working as an HR consultant, one graduate working as a teacher, two graduates stated that they were not currently working, and there were three people who did not respond to this question.

Figure 8. Field of employment



Job titles

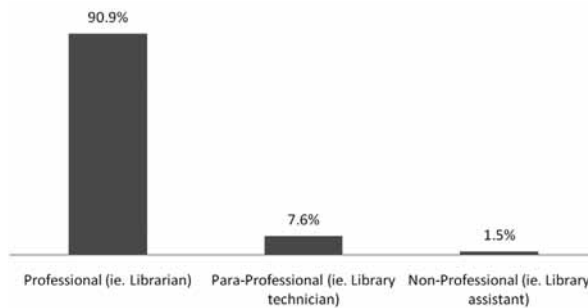
Graduates were asked about the job title that they currently had. This question achieved a 92% success rate, with 64 people answering this question, and 6 people failing to answer. The traditional “librarian” title appeared in 37 job titles. These included terms such as librarian, liaison librarian, systems librarian, branch librarian, teacher librarian, link librarian, client services librarian, reference librarian, special services librarian, research support librarian, senior librarian, digital repository librarian, serials librarian, regional resources librarian and library manager. The next most common job title used the term “information”. These included, information services team member, information consultant, information specialist (acquisitions), information specialist, web information specialist, online and information resource manager.

Other various job titles held by QUT LIS students included, learning resources manager, collections officer, manager road technical and commercial systems, senior HR consultant cataloguing assistant, senior administration officer, super teacher, software developer, academic support officer, access services co-coordinator, senior records officer, library assistant, business analyst, stay at home mum, digital repository assistant, HEW 6, training manager, ICT manager, project co-coordinator, and learning centre manager.

Level of Work

Job titles can not always give a good indication of the level of work a graduate is undertaking. As a result, the survey participants were asked to indicate what level they were employed at in their current position. This received 66 responses, with 8 people not answering the question. Figure 9 represents the data collected from graduates on their level of work they were employed in when they responded to the survey.

Figure 9. Level of work



Of the 66 graduates who responded to this question, 60 stated that they were employed at the professional level, 5 graduates commented that they were employed at the para-professional level, while 1 respondent stated that they were employed at the non-professional level. As this is the first QUT library studies graduate destination survey, it is hard to gauge how these results compare with previous library graduates. However, Hallam (2008) concluded that 72% of the Australian LIS workforce was employed at the professional level, 15.3% at the para-professional level, and 3.6% at the non-professional level. The results of the study are also consistent with Heazlewood et al (2006) study of graduates of Charles Sturt University, which found that 69.1% of its graduates were employed at the professional level, 20.3% at the para-professional level, and 3.3% at the non-professional level, while Genoni and Smith (2005) suggest that their studies of library graduates of Curtin University indicate that the level of professional employment that graduates have obtained has remained constant over their last three surveys. They found that in their 1998-2002 cohorts, 71.1% were employed at the professional level, 22.9% at the para-professional level, 4.8% were in semi-skilled employment, and 0.9% were in unskilled employment.

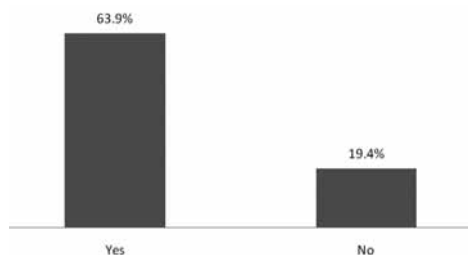
Employment promotions

Previous studies of the relevance of the LIS graduate's qualification to their career progression or advancement showed that without the qualification they would not have obtained the level of employment they were currently in (Genoni and Smith, 2005; Heazlewood et al, 2006). QUT graduates were asked to comment on whether the program that they had studied, lead them to obtaining a higher position than they would have had without it. Figure 10 reveals that 46 of the survey respondents agreed that the QUT qualification lead to them obtaining a higher position, while 14 graduates said that it did not. Two people did not answer this question, while 12 made comments about this question.

The comments seem to suggest that there was some confusion about what this question was asking. It should be noted that this was confusion was not noted in the pilot testing of the instrument. Some respondents wanted a measure to gauge this question, did it mean more money or was the criteria a measure of status. Other comments suggested that they would not have got their first position without the degree, but it was their experiences that lead them to gaining a higher position. This comment is consistent with the study conducted by Genoni and

Smith (2005) who found that 93.8% of graduates in their study commented that the degree was essential in helping them in gaining their positions, as most professional level LIS positions require some form of qualification. One participant commented that it lead them to move away from the technical side of things, to more business orientated roles, while another participant commented that from their experience of public libraries, they found that it was cheaper for the public library to employ technicians to do the job.

Figure 10. Relevance of qualification to obtaining higher position



Supervisory roles

In an effort to explore the level of professional work graduates were employed in, the study asked the respondents to indicate if they were employed in a supervisory role. Over 43% of respondents indicated (see Figure 11) that they were employed in positions where they supervised others, while three people did not answer this question. For those graduates who were employed in a supervisory role, it was unclear on the number of people they supervised. Getting an indication of this number, could help determine the size of the organisations these graduates are employed in, and the level of responsibility they have.

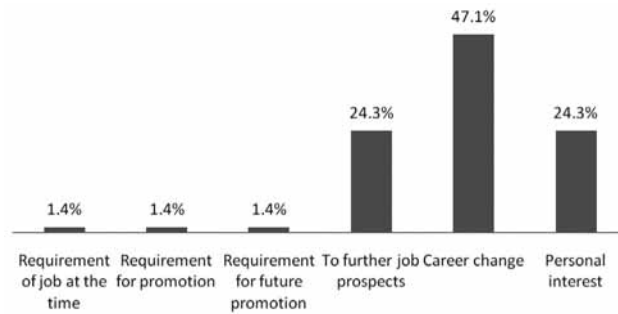
Figure 11. Supervisory roles



Reason for studying in this field

Deeming and Chelin (2001) suggest that taking up a career in the LIS field is usually undertaken as a second career. Over 44% of the graduates who responded to the survey stated that they chose to study in this field to change careers, while almost 23% of respondents stated it was to further job prospects, and for personal interest (see Figure 12). Respondents had the chance to make further comments to this question, and most respondents suggested that they were upgrading their current skills and qualifications, and that they thought that this qualification would make it easier for them to find full-time, permanent employment.

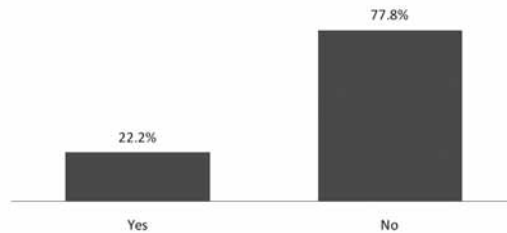
Figure 12. Reason for study choice



Further study

Graduates were asked if they were doing further study since they had graduated, and the results are shown in Figure 13. Those graduates who indicated they were currently doing further study (21.6%) were also asked to indicate what area this study was in. Five graduates stated that they were currently studying in education and leadership, and others commented they were currently studying in fields such as e-learning, doctoral research, law, applied science (library and information management), applied science (horticulture), training and assessment, children’s literature, archives and record keeping, astrology and English literature.

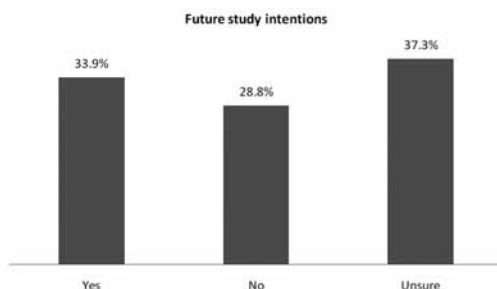
Figure 13. Undertaking further study



Further study intentions

If graduates indicated that they were not currently undertaking further study, they were asked if they had planned to study in the future and the results are shown in Figure 14. The respondents who stated that they may do further study in the future, were asked to briefly comment on what area this was likely to be in. Six graduates commented that they would like to do further study in education, three wanted to do further study in librarianship and information management, and two suggested library management and marketing. Other comments included, management, pharmaceutical, legal research, e-learning, nutrition, archival management, arts, acting, workplace training and assessment, and a doctorate in history or literature.

Figure 14. Further study intentions



Comments on why graduates did not want to pursue further studies

Graduates were asked to comment on their decision not to undertake further studies. This produced 21 responses, and these comments have been grouped together with similar justifications. The main reason given for graduates not to take up further study was they were happy with their current positions and their current qualifications were enough for what they wanted to do. The next main reason given was the expense of study. Several respondents stated that they thought further study would be too expensive for them, as they were still paying for the study they had already completed. Respondents commented that there was nothing appropriate for them to study, or that they simply had not interest to pursuing further education. Others commented that they did not enjoy studying, and that previous experiences had put them off.

LIMITATIONS OF THE STUDY

This study has several limitations that must be considered. First, the survey was distributed via these e-lists using the online survey tool SurveyMonkey, and as a result, there is no way to determine how many graduates were missed because they were not on the mailing lists. Linked to this is the issue of a low response rate. Whilst 35% is sound, generalisability is restricted. Second, the measures used to assess the main variables of interest in the research were all self reported. Whilst self reported data is useful it does rely upon the honesty of the respondent. Third, there was some indication that although the questionnaire was pilot tested some items were not working as hoped.

CONCLUSION

The first major conclusion drawn from the results is that while there was a low response rate, this did not mean that the data collected was not of use. The majority of the results collected from the QUT were consistent with studies previously done by other institutions. The results from the QUT survey showed that the majority of respondents worked and lived in Brisbane. This is more than likely due to the fact that up until 2008, the QUT LIS qualifications were delivered solely on a face to face basis. The geographic distribution of graduates is expected to change in the future as QUT's LIS course is now available in a blended mode of delivery offering both face to face and an external study options.

Another significant outcome of the survey revealed that over half (51.4%) of the respondents were already working in LIS while they were studying. This data would suggest that people had undertaken study to gain formal qualifications for work they were already doing, or were expecting to achieve a higher level of employment in the same industry. It took 26 per cent of those not already working in the industry less than six months to find work. When analyzing the data, this indicates that 77.6% of QUT graduates found work in LIS in less than six months, with nearly 70% of those currently working in LIS were working on a full time basis.

The survey report is a good first step in keeping track of where past graduates are now. While the results indicate that for the most part, the data collected from QUT graduates is consistent with research done on other LIS graduates at other universities, it would be good to make this survey an ongoing initiative so that the results of QUT graduates can be analyzed and compared over time. It was also felt that there were some gaps in the survey design. This mostly revolves around student attitudes to their area of study, and how things could be improved, the pay scale of graduates, and their attitudes and thoughts on the profession as a whole.

It is suggested that if this survey is to be an ongoing initiative, contacting graduates directly, using university enrolment contact details, and having the survey open for longer may be a step in ensuring that more graduates respond and take part. QUT strives to be the “university of the real world” and this study has helped to shed some light on what role the university’s LIS graduates have in that ‘real world’.

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LITERATURE REVIEWS AND THE HERMENEUTIC CIRCLE

*Sebastian K. Boell and
Dubravka Cecez-Kecmanovic*

Conducting a literature review is a vital part of any research. Library and information science (LIS) professionals often play a central role in supporting academics in their efforts to locate relevant publications and in teaching novice researchers skills associated with literature reviews. This paper examines literature review processes with the aim of contributing to a better understanding of their complexity and uncertainty and to propose a new approach to literature reviews: one capable of dealing with such complexity and uncertainty.

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INTRODUCTION

Literature reviews are a vital part of any research project. Librarians often play an important role in supporting academics in their search for literature and in training neophyte researchers in literature research techniques. The service librarians provide in this context extends beyond searching and includes, for example, advising on and providing access to appropriate literature. At times, it can be difficult to provide young researchers with a proper understanding of the whole literature review process.

Librarians and information professionals use and teach others to use a wide range of skills for identifying and locating literature. They draw on different techniques when searching, including search operators and field search. They rely on search strategies for making their attempts more focused and for identifying additional literature. They assist in obtaining relevant literature in print, electronically, and through other libraries. Furthermore, they rely on and train others in using supportive tools for managing references, for instance, using software like Endnote or Refworks. Moreover, they are proficient in using and educating others in the

use of professional literature research databases like Scopus, Web of Science, or ScienceDirect.

Literature reviews are of importance to academics in all fields (Bensman, 2007), with librarians often assisting academics in locating literature for their reviews and their research (McKibbin, 2006). In most cases literature reviews are an integral part of research publications, but they can also constitute a research publication on their own right (Garfield, 1987). Over the last decade, an increasing number of authors have started to use structured approaches for compiling literature reviews known as systematic reviews (Chalmers & Altman, 1995). Such an approach was first used in medicine (since the mid 1990s) but is now spreading to other disciplines. Authors of systematic reviews claim that selecting the literature for a review in a structured way leads to unbiased, complete, and reproducible reviews (Kitchenham & Charters, 2007).

This article questions the claims that any selection of the literature can be 'unbiased, complete and reproducible' and argues that in most cases, a review of relevant literature cannot be achieved following a structured approach. As an alternative, it introduces a hermeneutic approach towards literature reviews. Seeing a literature review as a hermeneutic process makes it evident that there is no final understanding of the relevant literature, but a constant re-interpretation leading (ideally) to deeper and more comprehensive understanding of relevant publications. It argues that especially in the social science and humanities literature, reviews are better understood as a continuing, open-ended process through which increased understanding of the research area and better understanding of the research problem inform each other. Although the hermeneutic approach is more obvious in the social sciences and humanities, it is not limited to these fields.

The main purpose of this paper is to identify deficiencies of the systematic review and propose a hermeneutic circle framework to overcome them. The hermeneutic framework is of interest to researchers as well as for those who teach and assist others in their quest for literature. In order to exemplify the practical relevance of the framework, it will briefly discuss some practical literature research methods. However, it does not provide an extensive introduction into such techniques, only aiming to provide an overview of different techniques that can be further extended by researchers and those training novice researchers.

This paper aims to a) contribute to better understanding of the literature review process by drawing from hermeneutics, and b) proposes a model of the literature review as a hermeneutic circle including potential strategies and techniques for searching, filtering and refining which advance the quality of literature reviews.

SHORTCOMINGS OF STRUCTURED APPROACHES USING DATA-BASES

One approach to undertaking a survey of existing literature is known as systematic review. The phrase was first used in medicine in the mid-1990s (Chalmers & Altman, 1995) from where it spread into other fields. For example, passing through the fields of medical informatics (Shiffman et al., 1999) and health technology

(Ramsay et al., 2000), the phrase made its way into the software engineering literature (Kitchenham, 2004).

In contrast to other types of literature reviews, systematic reviews follow a structured approach. First a body of potentially relevant publications is identified. Each publication is then evaluated according to clearly defined criteria for inclusion or exclusion set beforehand. Such a process is therefore potentially reproducible by other researchers (Greenhalgh, 1997; Kitchenham & Charters, 2007). In medicine, the rationale behind systematic reviews was that spotty coverage of publications can lead either to unnecessary studies on treatments otherwise shown to be non-promising, or even more severe, to prolonging studies on treatments which could be life-saving (Mulrow, 1995). The aim of systematic reviews is therefore to apply more rigorous methods when looking for literature, in order to avoid such problems (Oxman, 1995). However, in order to follow this structured approach, the research question being investigated has to be fixed before the literature review starts. Therefore, systematic reviews may inhibit academics from pursuing further literature if a review's progress does not match the initially set question. As MacLure (2005) puts it: "diversions into unanticipated areas are not encouraged ... learning from adjacent areas is not recommended either." This is especially problematic in social sciences research and the humanities, where research questions typically are less rigid and may evolve over the course of the research.

Anyone who has undertaken research in these areas knows that a deeper understanding of the research problem is gained as the literature review progresses, with the researcher becoming more aware of what questions are most relevant or pressing. Systematic review strategies are therefore ill equipped to address research that cannot be precisely formulated in a form of closed questions before starting the review process. Claims by proponents of systematic reviews that this method is suitable for research students undertaking a Ph.D. (Kitchenham, 2004) are therefore open to question.

Apart from narrowing the questions which can be pursued by academics in literature reviews, guidelines for undertaking systematic reviews in the social sciences disciplines often understand systematic reviews as reproducible database searches (Kitchenham, 2004; Kitchenham & Charters, 2007). It is therefore important to highlight further issues with systematic reviews arising from technical shortcomings related to database searches. Concentrating on database searches for literature reviews is insufficient for two reasons. Firstly, databases are limited in their coverage. Secondly, search terms are generally indeterminate.

Limited coverage stems mainly from the fact that single databases only cover a subset of all academic journals. Each database will therefore exclude some journals with potentially relevant publications. Furthermore, not all journals covered by a database are indexed from cover to cover, omitting many publications considered as not fitting the scope of a particular database. For this reason, even if two databases index the same journal the coverage of articles might differ. On top of limited coverage of journal articles by databases, coverage of books and book chapters in databases looks even worse. One example of a study investigating the

scatter of relevant literature over databases was undertaken by Hood and Wilson (2001). Their findings show that for most topics, searching even more than 30 databases could still help to identify additional relevant records.

The second factor, indeterminacy of search, refers to the fact that a specific topic can be described using different words. The same topic can therefore be represented using an almost indefinite number of expressions. Inevitably, even an elaborate search strategy using various synonyms for the same word cannot capture all relevant expressions. Systematic approaches using a pre-defined set of keywords (cf. Kitchenham & Charters, 2007) may miss relevant publications that could be found by using different wording.

Combining possible synonyms can lead to searches retrieving an impressive numbers of results. However, the results are usually of low precision, with only a fraction of all retrieved 'results' being relevant. They are therefore by no means necessarily superior to searches retrieving a low number of results. Moreover, retrieving huge result sets leads to the laborious task of having to evaluate a large number of results. Even when following strict guidelines during selection, the bigger the results set the greater the chance for error (Blair, 2006). For example, Beecham et al. (2006) report that 92% of the 1,445 records retrieved by their search on "motivation in software engineering" could be rejected without even looking at the paper.

Systematic reviews as advocated outside medicine fall short of their own claim of overcoming bias as they often limit their search to particular journals or databases. In fact, this approach will inevitably introduce bias into literature reviews, and was precisely the reason why systematic reviews were proposed in medicine in the first place. Furthermore, systematic reviews that closely associate literature reviews with repeatable database searches will inevitably miss any publication that does not use any of the keywords used for searching. Even worse, systematic reviews can only be correctly undertaken for closed research questions which cannot be altered in the light of the deeper understanding gained through the literature review.

THE HERMENEUTIC CIRCLE AS FRAMEWORK FOR LITERATURE RESEARCH

As the systematic approach to reviewing literature in the social sciences and humanities appears to have drawbacks, exploration of alternative approaches is warranted. One possible alternative framework is provided by hermeneutics.

Hermeneutics is concerned with the process of the creation of interpretive understanding (*Verstehen*). Understanding of a paper is never isolated. It is interpreted in the context of other papers from the literature. Understanding of the relevant literature in turn is influenced by each new paper read and interpreted. This process in a more generic form is examined by hermeneutics: how the understanding of parts relates to the understanding of a larger whole and vice versa. This movement back and forth between the parts and the whole in the process of understanding is described by the hermeneutic circle.

The whole body of relevant literature for a specific phenomenon consists of multiple texts and, in turn, individual texts can be seen as parts of the whole body of relevant literature. In accordance with the hermeneutic circle, understanding of the meaning and importance of individual texts depends on the understanding of the whole body of relevant literature which in turn is built up through the understanding of individual texts. Undertaking a survey of relevant literature can therefore be described by the hermeneutic circle.

The origin of hermeneutics can be traced back to the interpretation of religious texts (Ramberg & Gjesdal, 2009). Traditionally, the interpretation of religious text was only the domain of the Catholic Church, however, with Martin Luther individual interpretations of religious texts became possible. This shift in interpretation opened up the room for the existence of multiple interpretations which in turn led to the question of how the 'right' or 'correct' meaning of a text can be derived. Early contributions towards modern hermeneutics started to see different factors involved when interpreting religious texts. For example, Benedict de Spinoza (1670|1895) acknowledged the importance of the historical horizon in which a text was written, and Giambattista Vico (1744|1979) stated the importance of the relationship between thinking and cultural context.

The 19th century saw the move of hermeneutics from religious texts to understanding in general and from approximating correct understanding to the approximation of better understanding. This move is mainly associated with Friedrich Schleiermacher and Wilhelm Dilthey. First Schleiermacher (1838|1998) extended hermeneutics from religious and ancient texts to all forms of linguistic material and later Dilthey (1957) to understanding in general. Dilthey was therefore the first to see a general relationship between hermeneutics and the question of human understanding, the problem further pursued by Heidegger.

Modern hermeneutics deal with the question of human understanding in general as developed by Heidegger and Gadamer. Heidegger (2002) argued that self understanding and world understanding are inseparably interwoven. The question of leaving the hermeneutic circle when a clear meaning is reached is therefore effected by the way the hermeneutic circle is entered. A fact also important when undertaking literature reviews, as we will see below. For Gadamer (1960|1979) human existence in general is closely related to language. Our understanding of prior works shape the understanding of ourselves.

Seeing the process of understanding as generally open ended and circular in nature, hermeneutics provides a framework for describing literature reviews. According to this understanding, literature reviews facilitate a deeper understanding not only of the body of relevant literature but also a deeper understanding of individual texts. Literature reviews therefore do not have to start by identifying all potentially relevant texts, but should proceed from a thorough reading of relevant texts. Reading of texts will facilitate the quest for further relevant literature. Using this approach enables researchers to successively encircle relevant works. Depending on the nature of an investigation, this encirclement can be wider, for broad overviews investigating general relationships, or narrower when a comprehensive survey of particular aspects is desired.

Reviewing literature is an iterative process that can be described by moving from the whole of all (identified) relevant literature to particular texts and from there back to the whole body of relevant literature. One important means for moving from the whole to its parts is searching. The primary means for moving from a part to the whole is through reading. It is important to note that as this process emerges and we circle between the part and the whole, the whole is changing together with the meanings of its parts.

For better understanding this process can be further broken down into more specific steps, depicted in Figure 1. Each of these different steps can then be associated with different techniques which can be used to facilitate further progress. Furthermore, shortcuts or feedback loops between different steps are possible. For example, reading might directly lead to the identification of additional literature, which is then acquired for reading.

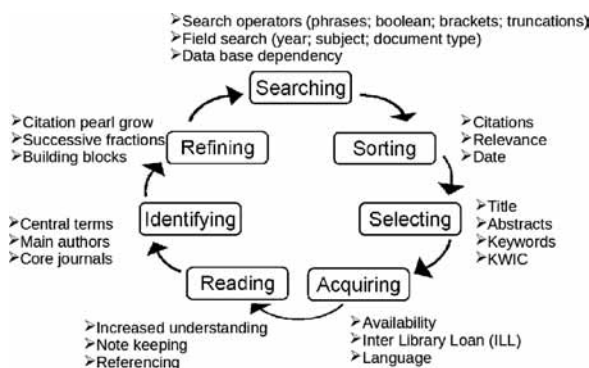


Figure 1: The hermeneutic circle of reviewing literature and techniques associated with different stages of the hermeneutic circle.

GOING THROUGH THE HERMENEUTIC CIRCLE

It is important to note that not every survey of existing literature has to start with a search. It is also possible that the first step is reading a document known to be relevant, for example, provided to a Ph.D. candidate by their supervisor. Having a relevant document at the start has some advantages as it, for example, introduces the use of vocabulary in a field.

Starting to look for literature

Heidegger has directed attention towards the entry point of the hermeneutic circle. In the context of reviewing literature this is reflected by the initial texts selected for reading. Academic literature consists of different document types fulfilling different purposes. When starting a survey of the existing literature, some documents types hold more promise of being helpful than others. For example, reading a whole monograph on a theory before establishing if the theory is useful in the context of a research might be intellectually rewarding, but not very efficient if it turns out that the theory is of limited use.

A good entry point into searching is provided by literature giving an overview of the area of interest and adjunct areas. Apart from book chapters aiming to provide an overview, entries in encyclopedias and review articles are of particular interest. Relevant book chapters are harder to identify but they might be identified using the other two types of literature.

Starting the review by looking up relevant entries in subject specific encyclopedias usually leads quickly to the identification of further literature. Subject specific encyclopedias have some advantages over general encyclopedias which might also be helpful during the initial stage. They are written by known experts in the field and the authorship of articles is usually indicated, giving them authority when cited. Moreover, they usually provide references to further literature and are therefore a good way for identifying introductory literature. Disadvantages of subject specific encyclopedias are that they are not always available in electronic form. Furthermore, as they are labor intensive to prepare with a limited readership they are usually costly and therefore not every library can afford all encyclopedias their patrons might find useful. For the same reason they are usually not updated frequently, missing references to current literature and recent developments. Electronic access over the Web may help to overcome these limitations. The Stanford encyclopedia of philosophy (Zalta, 2009) is a noteworthy and positive example of this approach.

Arguably the most important document type when starting to look for literature are review articles. In addition to the merits of review articles already mentioned in the introduction, Blair notes that overview articles provide access to the intellectual concepts of an area and the structure of those concepts (Blair, 2006). Moreover, they introduce the specific vocabulary used to discuss those concepts. Reviews usually draw on a wide range of material introducing important research publications and their relationship to each other. Reviews are therefore ideal for immersing into a field. Reading review articles at the beginning of research is helpful, even if only some sections of a review are relevant for a particular research project. Initial literature searches should therefore aim to identify recent relevant review articles if possible. For example, Scopus and Web of Science both allow searching specifically for review articles (Figure 2 and 3).

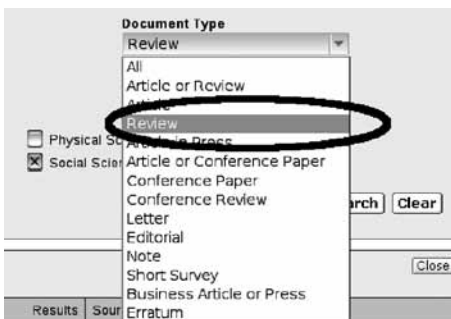


Figure 2: Searching for review articles in Scopus.

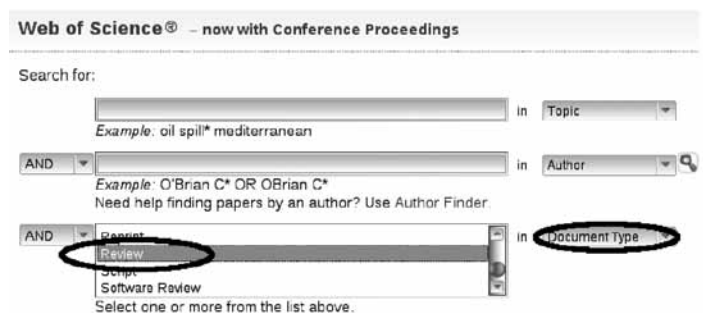


Figure 3: Searching for review articles in Web of Science.

Searching for literature

The processes of searching and selection are interwoven. Choosing particular search terms or search fields will affect the literature retrieved. Wider searches will retrieve more documents making a more laborious selection necessary while narrow searches may omit relevant documents. Retrieving a small set of highly relevant documents during the first iteration of the hermeneutic cycle is preferable over huge sets of document whose relevance cannot be sufficiently judged. Returning to the search after the first set of documents is read will then allow searching for additional documents based on extended understanding of the topic. This not only helps to search for relevant literature more effectively, but also helps to better avoid irrelevant literature as well.

Different methods and strategies can be used to achieve this goal. One strategy that can help to limit the number of retrieved documents is field searching. Most likely to be useful in this regard are fields for 'publication year', 'subject category' and 'document type'. The advantage of focusing on certain document types was already discussed above in regards to review articles. Using search operators is another well known way for achieving better precision when searching, providing retrieval systems additional instructions on what to do with search terms. They can be used to make search terms more or less restrictive and to combine search terms in different ways. Operators include the use of phrases, truncations, the Boolean operators AND, OR and NOT, as well as proximity operators like NEAR.

Sorting search results

One example of sorting documents in order to identify central literature is to employ citations. Using citations as ranking criteria allows identifying central publications that have been used extensively by other academics. Two databases mainly associated with this search feature are Web of Science and Scopus. It is important to keep in mind that citations favour older publications as they simply have more time for being cited. Citations are therefore useful for identifying central older publications. When searching for latest research publications, citations are of limited use.

Selecting search results

After a search has been undertaken retrieved results are analysed for their relevance. Analysis usually involves looking at the title and abstracts of documents in order to establish if they are relevant in the context of the search. Documents judged to be of potential relevance are then acquired for reading. However, titles and even abstracts of articles may not convey the content of an article sufficiently (Hartley & Betts, 2009). Full copies should therefore be obtained for all potentially relevant articles.

In some cases the analysis of search results may lead directly to refined searches, for example when the retrieved results are not matching the desired documents. This also happens when using a search strategy when the process of analysis is interwoven with the search process. Retrieved documents are analysed for their

relevance in order to adjust the search strategy. In this case analysis, refining, and searching are repeated until the selection of retrieved documents reaches an acceptable level of precision and completeness.

Acquiring relevant documents

Documents judged as being of potential relevance have to be acquired for reading. In some cases this can be difficult. If authors concentrate only on publications that are easy to obtain, important findings may be missed. Recent journal articles are usually available in electronic form and can be accessed directly from the desk or from home if a library has paid for access rights. Older literature may require a trip to the library in order to obtain a copy. Furthermore, some literature might not be available at an institution's library. If a copy cannot be requested through inter library loan (ILL), a physical trip to another research library might be necessary. These might seem like extreme cases, but some types of literature of relevance to academics are difficult to obtain. For example, conference contributions are usually more difficult to obtain than journal articles. Libraries simply cannot hold the proceedings of all major international conferences. Moreover, proceedings from important national societies might only be available in libraries overseas. Another example of literature that might be difficult to access is foreign language publications. If one cannot read the language in which they are written one might miss relevant publications.

In the case of a hermeneutic approach, focusing on accessible literature first is acceptable. After reading the first set of relevant papers, the importance of publications not yet obtained can be better judged. For example, if several other papers cite a particular publication that subsequently appears highly relevant it should be included in the literature review. Limited access is not an acceptable excuse for excluding a publication believed to be of importance.

One strategy for obtaining copies of publications not readily available is to contact authors directly. Generally authors are happy to send a copy of their publication via email if they have an electronic version of it available. Also, as more and more journals allow authors to self-archive their publications on their homepage or in open access repositories, authors are thus able to make copies of their publications available via the Web.

Reading of identified publications

Arguably the most important part of a survey of existing literature is reading. Through reading, important concepts are identified while at the same time the vocabulary used to describe those concepts is mastered. Furthermore, through reading one can learn how similar results are interpreted differently by different authors. Increased understanding of a topic acquired through reading can be used to identify additional search terms and phrases as well as related theories.

Other important aspects of the reading process are note keeping and referencing. In order to provide an overview of an extensive body of literature it is important to establish means for keeping track of the read literature. This includes keeping notes on who said what and who was referring or criticising particular research by

others. There are various means for achieving efficient note taking: for example, one can create comparison tables, use mind mapping techniques, or use software supporting qualitative analysis like Nvivo.

Regarding referencing, software tools can be used to ensure that read literature is later cited correctly. Especially for novice researchers citing material correctly can be a difficult process. There are several different types of academic literature including, for example, journal articles, conference publications, book chapters, reports, and books, all of which have to be cited differently. In addition, there are hundreds of different citation styles following different standards when citing literature. For instance, referencing tools like Endnote or Refworks can assist in citing different types of literature in different styles correctly, while also keeping track of which works have been used in a particular text. Therefore, they not only help to ensure that all used literature is cited, but also that it is cited according to the required citation style.

Identification of further literature and search terms

Reference tracking can be used to identify further relevant literature while reading. This is also sometimes called snowballing. As authors base their research on earlier research they are always referring to other literature relevant to their own research. Therefore, texts provide a synopsis of other texts they are referring to. Subsequently, reading one publication can help to identify further literature in the same area that is not yet known. Paying attention to the literature referenced by others can be a powerful way for identifying additional literature. For example, Greenhalgh and Peacock (2005) report that for their review, reference tracking was the most effective as well as the most efficient way for identifying literature.

While reference tracking is a good technique for finding additional literature, it has one major disadvantage. It can only go back in time. The literature found through reference tracking is usually published before the paper the references are taken from. One way for avoiding this disadvantage is to use citation analysis in Web of Science, Scopus, or Google Scholar. If an important paper is identified, these databases can be used to find other papers citing that paper. This way, citing literature can be tracked forward in time.

One can also try to identify important outlets for particular research. Bradford (1934) noted as early as 1934 that the literature on a specific topic is not spread uniformly over academic journals. Some journals publish more articles of relevance to a specific topic than others. A substantial part of the literature will appear in only a handful of 'core journals'. This effect is also known as Bradford's law of scattering. An understanding of this scatter of relevant publications can be employed when searching for literature. Through reading and citation tracking, the 'core journals' for specific topics can be identified and a future search can focus on those journals. For example, field search can be used to search in those journals only while using less restrictive search terms. It is however, important to keep in mind that the flip-side of Bradford's law of scattering is that the entire body of relevant literature will always extend over a vast amount of journals. A thorough literature review should, therefore, never focus solely on a specific set of journals.

Apart from identifying core journals, one can also try to identify important conferences. Literature research can then focus on the proceedings of those conferences. Attendance at an upcoming conference may also be a good way to become familiar with current research in the field.

A similar relationship that exists between relevant publications and journals also exists for researchers. Scholars are not equally productive (Lotka, 1926). Therefore, it is possible to identify some highly productive authors. Browsing the publications from specific authors believed to be central to a field is thus another way to find additional relevant publications. In addition to going through the publication lists of an individual author, one can also look for publications citing central authors. Web of Science or Scopus both allow this.

Refining searches

Some methods for refining searches have already been mentioned: looking for publications in 'core journals'; looking for publications by 'central authors'; and looking for publications citing other relevant publications. It was also mentioned that when reading relevant literature, additional search terms and expressions will be identified that can be used in subsequent searches.

As discussed above, using field searches and search operators allows the construction of complex queries that can be very powerful when looking for literature. However, the down-side of complex queries is that they can sometime lead to unpredictable results. Documents one believed would be retrieved are missed, while documents one wanted to exclude are among the results. Search strategies can help to avoid the pitfalls of complex searches by refining searches. Search strategies make use of the search history function available in document retrieval systems. Two main approaches can be distinguished: building blocks and successive fractions. Using successive fractions, one tries to start with a query designed to retrieve as many relevant documents as possible and then successively 'slice off' groups of irrelevant documents from the results. The goal is to come to a point where the result list reaches a satisfactory level of precision. This approach is sometimes called 'funnel search'.

The building blocks strategy starts with a set of simple searches that are then combined to build up a complex search. The advantage of this method is that it allows identification of search terms that retrieve unwanted documents during the search process. It is especially helpful when good search terms are not known. Looking at the results for each term one can evaluate if an additional search term helped to identify additional documents. Unpromising search terms can be dropped in order to achieve better precision.

In addition to those methods, one can apply a citation pearl growing strategy. A citation pearl growing strategy uses relevant articles as a starting point for further searching. These central articles are used for identifying characteristics of relevant publications. When using these characteristics for searching, one tries to successively extend the number of relevant articles. One way of doing a citation pearl growing strategy is by using citations. This method was already introduced above. In addition to citations, one can try to make use of keywords assigned to

documents. By looking at the keywords assigned to relevant documents, one can try to find other documents indexed with the same keywords.

In addition, one should try to get familiar with the way different databases operate. Most databases try to support users in their search. For example, Scopus provides various categories derived from retrieved documents. These categories are displayed at the top of each results list. Figure 4 provides one example of how this list can be used for excluding groups of documents that are not desired. In this example, the 'refine results' function can help users in applying a successive fractions strategy.

Quick Search

Scopus: 10,525 **More...** (922) **Web** (1,244,359) **Patents** (76,184)

Your query: TITLE ABS KEY-AUTH(technology acceptance) [Search History](#)

Refine Results <input type="button" value="Limit to"/> <input checked="" type="button" value="Exclude"/>				
Source Title	Author Name	Year	Document Type	Subject Area
<input type="checkbox"/> Proceedings of SPIE the International Society for Optical Engineering (209)	<input type="checkbox"/> Anon, (44)	<input type="checkbox"/> 2010 (2)	<input type="checkbox"/> Article (5,618)	<input checked="" type="checkbox"/> Engineering (3,715)
<input type="checkbox"/> Press Release (106)	<input type="checkbox"/> Venkatesh, V. (18)	<input type="checkbox"/> 2009 (604)	<input type="checkbox"/> Conference Paper (2,780)	<input checked="" type="checkbox"/> Medicine (1,914)
<input type="checkbox"/> Lecture Notes in Computer Science Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics (106)	<input type="checkbox"/> Demiris, G. (11)	<input type="checkbox"/> 2008 (965)	<input type="checkbox"/> Review (1,194)	<input type="checkbox"/> Computer Science (1,711)
<input type="checkbox"/> Information and Management (83)	<input type="checkbox"/> Mazzenga, F. (10)	<input type="checkbox"/> 2007 (926)	<input type="checkbox"/> Press Release (106)	<input type="checkbox"/> Social Sciences (1,258)
<input type="checkbox"/> Studies in Health Technology and Informatics (40)	<input type="checkbox"/> Giuliano, R. (10)	<input type="checkbox"/> 2006 (825)	<input type="checkbox"/> Short Survey (69)	<input type="checkbox"/> Business, Management and Accounting (871)
<input type="checkbox"/> MIS Quarterly Management Information Systems (39)	<input type="checkbox"/> Chau, P.Y.K. (10)	<input type="checkbox"/> 2005 (755)	<input type="checkbox"/> Book (65)	<input type="checkbox"/> Energy (665)
<input type="checkbox"/> VDI Berichte (37)	<input type="checkbox"/> Davis, F.D. (10)	<input type="checkbox"/> 2004 (657)	<input type="checkbox"/> Article in Press (62)	<input type="checkbox"/> Materials Science (549)
<input type="checkbox"/> Computers in Human Behavior (36)	<input type="checkbox"/> Tam, K.Y. (9)	<input type="checkbox"/> 2003 (505)	<input type="checkbox"/> Note (60)	<input type="checkbox"/> Physics and Astronomy (523)
<input type="checkbox"/> Proceedings of the Hawaii International Conference on System Sciences (34)	<input type="checkbox"/> Bhattacharjee, A. (9)	<input type="checkbox"/> 2002 (447)	<input type="checkbox"/> Conference Review (36)	<input type="checkbox"/> Agricultural and Biological Sciences (517)
<input type="checkbox"/> Journal of Computer Information Systems (33)	<input type="checkbox"/> Frauer, I.J. (9)	<input type="checkbox"/> 2001 (384)	<input type="checkbox"/> Dissertation (25)	<input type="checkbox"/> Environmental Science (511)
<input type="checkbox"/> Transportation Research Record (33)	<input type="checkbox"/> Wang, Y.S. (9)	<input type="checkbox"/> 2000 (490)	<input type="checkbox"/> Business Article (15)	<input type="checkbox"/> Biochemistry, Genetics and Molecular Biology (474)
<input type="checkbox"/> Computers and Education (28)	<input type="checkbox"/> Hu, P.J.H. (9)	<input type="checkbox"/> 1999 (326)	<input type="checkbox"/> Editorial (14)	<input type="checkbox"/> Chemical Engineering (468)
<input type="checkbox"/> Proceedings SPE Annual Technical Conference and Exhibition (26)	<input type="checkbox"/> Chiu, C.M. (8)	<input type="checkbox"/> 1998 (332)	<input type="checkbox"/> Report (14)	<input type="checkbox"/> Earth and Planetary Sciences (341)
<input type="checkbox"/> Proceedings of the Annual Hawaii International Conference on System Sciences (26)	<input type="checkbox"/> Zhang, P. (8)	<input type="checkbox"/> 1997 (305)	<input type="checkbox"/> Letter (3)	<input type="checkbox"/> Psychology (304)
<input type="checkbox"/> International Journal of Food Science and Technology (25)	<input type="checkbox"/> Agarwal, R. (8)	<input type="checkbox"/> 1996 (313)	<input type="checkbox"/> Erratum (2)	<input type="checkbox"/> Decision Sciences (293)
<input type="checkbox"/> International Journal of Medical Informatics (25)	<input type="checkbox"/> Karsh, B.T. (8)	<input type="checkbox"/> 1995 (261)	<input type="checkbox"/> Undefined (460)	<input checked="" type="checkbox"/> Health Professions (287)
<input type="checkbox"/> Dissertation Abstracts International A the Humanities and Social Sciences (24)	<input type="checkbox"/> Morris, M.G. (7)	<input type="checkbox"/> 1994 (221)	<input type="button" value="Less..."/>	<input checked="" type="checkbox"/> Nursing (261)
<input type="checkbox"/> Journal of Telemedicine and Telecare (23)	<input type="checkbox"/> Whetten, P. (7)	<input type="checkbox"/> 1993 (191)		<input checked="" type="checkbox"/> Mathematics (237)
<input type="checkbox"/> Energy Policy (23)	<input type="checkbox"/> Lou, H. (7)	<input type="checkbox"/> 1992 (158)		<input checked="" type="checkbox"/> Chemistry (213)
<input type="checkbox"/> Proceedings Annual Meeting of the Decision Sciences Institute (22)	<input type="checkbox"/> Siegrist, M. (7)	<input type="checkbox"/> 1991 (145)		<input checked="" type="checkbox"/> Pharmacology, Toxicology and Pharmaceutics (169)
More... Less...	More... Less...			More... Less...

Sort on: **# of results**

Figure 4: Refining search results in Scopus.

Leaving the hermeneutic circle

This leaves us with the final question of when to end a search and leave the hermeneutic circle? Using a hermeneutic approach to literature reviews, relevant literature is not detected in bulk but is approximated through encirclement. This ensures a continuous identification of relevant literature. Moreover, it allows the adoption of new areas and related research fields as one comes across them. A hermeneutic approach also allows adjustment to the magnitude and time constraints of particular research projects. Additional time allows

additional iterations and therefore a better approximation towards more relevant literature. Additional iterations will retrieve more relevant literature, and identify new adjacent areas and related theories. In fact, many researchers will continue to pursue literature of relevance to their area of interest without ever reaching a final point. Such dedication may eventually lead to publications of major importance, but in the context of a specific research project, more pragmatic criteria might be desired. In this case, a point of saturation may be reached if additional publications make only a marginal contribution to further understanding of a phenomenon. This is the case, for instance, when key ideas and results have already been read or when a substantial part of the references cited by a publication are known. This indicates that the main publications have been identified and read and a point of saturation has been reached.

CONCLUSION

As systematic reviews can only be correctly undertaken when research questions can be set before the literature review is underway, it has been argued that they are not suitable for most literature reviews in the humanities and social sciences, where most prevailing research questions generally only start to emerge when the literature review is well under way. Furthermore, in these disciplines research questions are generally fairly open, not allowing clear boundaries of the relevant literature to be established. But systematic reviews are also often not feasible for literature reviews in the natural sciences when time and resources are limited. If systematic reviews are undertaken in the way they were initially advocated, they should aim to identify all relevant literature regarding a particular research question without regard for origin, language or by relying solely on database searches (Chalmers & Altman, 1995). Clearly for most researchers this is an impossible task. Guidelines for systematic literature reviews outside medicine put systematic reviews on a level with repeatable database searches. For this reason, limited coverage and indeterminacy of search terms have been discussed as two main shortcomings of database searches.

To address some shortcomings of systematic reviews, this paper proposes the hermeneutic approach as an alternative framework to conducting literature reviews. By using the hermeneutic circle for describing the process of literature research, the paper provides a framework that can be used by information professionals who assist and teach others in searching literature. It brings together different aspects of the literature review process under one umbrella, thus facilitating integrative understanding of different sets of skills used for identifying and obtaining literature of relevance in a particular context. In this framework, the stages of searching, sorting, selecting, and acquiring as well as reading, identifying, and refining are connected. While each stage is associated with different skills, all stages inform each other in order to facilitate the literature review process. While searching helps to pin-point literature for reading, reading should, in turn, inform the search process as well.

The practical use of the framework has been shown by providing examples of different techniques, methods, and strategies frequently taught and used by LIS

professionals. Such techniques include search operators as well as employing citations for identifying central publications. They also include services provided by librarians including inter-library loan, or search strategies like building blocks, successive fractions, and citation pearl growth. It includes tools used by LIS professionals in their work environment and by their clients. For example, literature reference databases like Web of Science and Scopus, or referencing tools such as Endnote or Refworks.

According to a hermeneutic framework, using more targeted searches can help to identify documents considered to be highly relevant in the light of the current understanding. Reading these publications will then provide the foundation for finding additional literature and better approximating literature considered to be relevant. The aim of an initial literature search following the hermeneutic approach is therefore not to retrieve a huge number of potentially relevant publications, but to identify a small number of highly relevant publications instead. Repeating these steps in subsequent iterations of the hermeneutic circle will help academics in approximating a better understanding of the literature of relevance to a particular phenomenon. Using the hermeneutic circle as a model for literature reviews can therefore help academics in advancing the quality of their literature reviews. It might also be useful for facilitating a general understanding of the literature review process by undergraduates (Wilkes & Gurney, 2009).

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REVEALING LIBRARY COLLECTIONS: NSLA RE-IMAGINING LIBRARIES PROJECT 8 – DESCRIPTION AND CATALOGUING

Pam Gatenby

**Report based on conference paper presented at
Empowering Users, Hobart 5 November 2009.**

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INTRODUCTION

One of the most exciting developments to occur within the library profession in recent years has been the re-evaluation of our role in resource discovery in the web environment. This has involved recognition of short-comings of online library catalogues, a re-affirmation of the importance of metadata and a new focus on the wealth of information held in library collections. It is very gratifying for many of us that cataloguing has come into its own!

Digital technology now offers incredible opportunities to reveal our collections and to make new discoveries about them. However, a fundamental problem remains. Many of our important and unique collections cannot be discovered using search services in common use because they have not been processed and described. They languish, unappreciated and unused, hidden behind institution walls.

It is now generally accepted that if libraries are to remain relevant in the digital age and accountable to key stakeholders, we have to make our collections known and able to be used. The benefits of doing this are numerous - we enhance our visibility and reputation, reveal the unique strengths of our collections, place them in a wider context and assist users make decisions about the relevance and usefulness of the collections. From the perspective of managing the collections, if they are adequately described in publicly accessible catalogues, we reduce the risk of items being lost or stolen, reduce the dependency on individual staff members who hold the knowledge about particular collections, and eliminate the need for the inefficient workflows that are required to manage uncontrolled collections.

However, many research libraries face significant obstacles in revealing their hidden collections. While technology offers new and exciting opportunities for meeting user expectations for easy access, the resources available to process and describe collections are declining even though acquisitions and backlogs are growing and the nature of collection management is increasing in complexity. The situation described by OCLC in its 2003 report on five-year information format trends, continues to frustrate libraries. The report states that “the universe of materials that a library must assess, manage and disseminate is not simply shifting to a new set or type of materials, but rather building into a much more complex universe of old and new, commodity and unique, published and unpublished, physical and virtual.” (www.oclc.org/info/trends/) In addition, cataloguing departments face stiff competition for resources as their libraries address the expectation that they offer new online services. An irony is that these services, also essential to the survival of libraries, can impose an additional burden on areas responsible for collections description. To realise the full potential of functionality, the services are often dependent on the availability of metadata and rich metadata at that. For instance, before the National Library of Australia commenced digitising our pictures collections in 1996, we catalogued individual collections with one record. Now, each image in the collection requires its own individual record to provide the link to the digitised item. This requirement which is a feature of our delivery system, has undoubtedly improved access for users to images in our collection but it has also increased the workload of the pictures’ cataloguers.

Against this background, a reassessment is underway of the approaches libraries take to processing and describing collections, with the view to reducing costs and escalating the rate at which we make collections accessible. However, a significant issue is that technology can only go so far in reducing costs and facilitating access. Metadata is the basis for access and for some time to come expensive human beings will be required to create the metadata for the large number of collections in print form. The focus of the reassessment is therefore on doing things differently or in a more streamlined, pragmatic way.

Discussion of what needs to be done to reveal hidden library collections has been prominent in library literature since the late 1990s and has given rise to a new professional vernacular – for instance, “More product, less process”; “Better, faster, cheaper”; “the demise of the completeness syndrome”; “a brief record is better than no record.”

A few of the more influential reports in recent years that have concentrated on improving online access to collections are the following:

- The Changing Nature of the Catalog and its Integration with Other Discovery Tools, by Karen Colhoun, February 2006. (<http://www.loc.gov/catdir/calhoun-report-final.pdf>)
- On the Record: report of the Library of Congress Working Group on the Future of Bibliographic Control by Library of Congress Working Group on the Future of Bibliographic control, January 2008. (<http://www.loc.gov/bibliographic-future/news/lcwg-ontherecord-jan08-final.pdf>)

- More Product, Less Process: Revamping Traditional Archival Processing by Mark A. Green and Dennis Meissner. (<http://ahc.uwyo.edu/documents/faculty/greene/papers/Greene-Meissner.pdf>)
- The Metadata is the Interface: Better Description for Better Discovery of Archives and Special Collections by Jennifer Schaffner, OCLC Research, May 2009. (<http://www.oclc.org/research/publications/library/2009/2009-06.pdf>)

We need to take account of some recurring themes or messages arising from these reports and from other discussions on the topic of describing collections for access. These include, for instance:

- (i) most users are seeking and discovering information resources at the network level rather than in the local catalogue, and they expect systems to be easy to use;
- (ii) users want to be able to discover things for themselves, so less mediation by curators of collections is a good thing and a mark of our success!
- (iii) metadata is still essential to effective discovery but the data elements valued by users can be quite different from what libraries think users need, and different from what libraries themselves need for collection management purposes;
- (iv) libraries no longer have to create the definitive or complete record - we need to maximise use of data produced through the entire “supply chain” and accept that user enhancement is a valid aspect of collection description; and
- (v) to realise efficiencies we need to question whether traditional practices and processes are really necessary; for instance, a brief record is better than no record and good enough will do - if not, then someone will enhance it!

WHAT'S HAPPENING IN AUSTRALIA?

For many years Australian libraries have been cataloguing their collections onto the online national bibliographic database which is now accessible through Trove (www.trove.nla.gov.au). Trove is a wonderful service for discovering a wide range of information resources about Australia - but it has the potential to be a truly extraordinary service if we can re-imagine how we process and describe the more difficult materials in our library collections so that more of them are discoverable online.

A fascinating story about a recent discovery in the National Library's pictures collection illustrates this potential. [The following account draws heavily on an article by Linda Groom, Curator of Pictures at the National Library, prepared for the Gateways publication. The full account with images is available at <http://www.nla.gov.au/pub/gateways/issues/102/story11.html>]

Earlier this year, the Curator of Photographs at the National Library of

Norway, Harald Óstgaard Lund, was searching the Internet for images of Roald Amundsen's 1911 expedition to the South Pole. The Norwegian explorer and his team were the first to arrive at the South Pole. The photograph showing Amundsen's team with the Norwegian flag at the Pole has become the most requested photograph in the National Library of Norway's collection. Though it is a Norwegian icon, the National Library of Norway does not own a negative or vintage print of it. But, guess what! While searching the Internet, Mr Lund came across hundreds of images of Amundsen at the South Pole but one 'small brown one' stood out. The landscape format of the photograph was the first exciting clue – in all the versions that Mr Lund had previously seen, some of the snow on the left and right had been cropped away.

Mr Lund followed the link back to the National Library's Web site. There he found the full catalogue record which helped him identify the photograph as a vintage print. The dimensions – 7.6 x 12.6 cm – were a critical part of the information; they confirmed that the photograph was a contact print from the size of negative used by the Kodak folding camera that Amundsen's party took to the Pole.

The photograph was part of an album *Tasmanian Views*, compiled by Edward Searle. Hidden among the hundreds of photographs in the album are eight related to the Amundsen expedition - four taken at the South Pole and four of Amundsen and his crew in 1912 in Hobart, the first port of call for the explorers on their return to civilisation. When they reached Hobart, they took their negatives to the photographic studios of J.W. Beattie. The young Edward Searle was working for Beattie at the time.

The album was purchased from Searle's descendants for the National Library in 1965. The album received only occasional use until it was catalogued and digitised in October 2002. The digitised images were indexed by Google in late 2003, and the first photographic order for the Amundsen images arrived a month later, from a publishing house in Poland. Mr Lund plans to request a loan of the album to include in an exhibition in Oslo in 2011, the hundredth anniversary of Amundsen's arrival at the Pole.

While many wonderful images like the Amundsen photograph are already discoverable through Trove, there are thousands upon thousands of historically and culturally important collection items not there and not findable online anywhere or by anyone.

These take many forms including pictures, maps, posters, personal papers, sketchbooks, pamphlets, objects, ephemeral materials such as advertising brochures, and menus. They are often unpublished materials, collected in large quantities, have relationships with other collections, and provide sources of information not readily available elsewhere. They can be messy to manage, taking all shapes and forms, often difficult to quantify and even locate within institutions. It's not a simple story! Until processed and described these materials remain largely unused, and if someone does want to use them, access is often dependent on the expertise or knowledge of individual staff members.

Nevertheless, our collections represent a national asset, a veritable treasure trove, and we, as custodians of the collections, are accountable to our funding and governing bodies and to the public for making them available for use. As Napoleon Bonaparte observed, “Riches do not consist in the possession of treasures, but in the use made of them”.

What better way to empower our users than to let them discover for themselves that these collections exist and to do so through the usual ways they go about seeking information?

LIBRARIES AUSTRALIA SURVEY OF CONTROL OF LIBRARY COLLECTIONS ([HTTP://LIBRARIESAUSTRALIA.NLA.GOV.AU/APPS/KSS](http://librariesaustralia.nla.gov.au/apps/kss))

A problem with developing a strategy for dealing with hidden collections is gauging the extent of the problem and establishing priorities. In August last year, Libraries Australia carried out a survey of member libraries to get a better idea of the currency of their holdings on the national database and to discover important gaps and the reasons for these gaps.

Just over 200 valid responses were received to the survey. In response to a question about the percentage of total library collections not recorded on the national database, the seven state and territory libraries that participated in the survey indicated that 37% of their combined collections, or about 4 million items, were not catalogued at the national level. To determine the significance of a finding such as this, many considerations come into play such as the categories of materials not being contributed and the reasons for this.

In response to the question “What type of materials in your collection are not recorded in the national database”, at least 40 libraries out of the 200 who responded to the survey, indicated that they hold material in all of the 22 formats used in the survey that is not recorded on the national database. Further analysis by format of material provides details on the extent to which they are inaccessible. For instance, 60 respondents have picture collections and 58 institutions have maps that are not recorded at the national level.

The survey also collected some revealing information about why material has not been contributed to the national bibliographic database. Reasons given include that collections have not been catalogued or that manual records exist but need upgrading before they could be uploaded to the national database, and that records for non-book materials are not added because they can't be loaned. System constraints are also mentioned as reasons for not contributing records to the national database.

RE-IMAGINING LIBRARIES PROGRAM ([HTTP://WWW.NSLA.ORG.AU/PROJECTS/RLS](http://www.nsla.org.au/projects/rls))

In July 2009, the National and State Libraries Australasia (NSLA) group (<http://www.nsla.org.au/constitution>) released the Re-imagining Library Services Strategic Plan which outlines ways in which the member libraries will collaborate

to adopt new opportunities in service delivery. The Strategic Plan is developed around three strategies:

- One Library, which involves redefining services to provide a consistent and easy experience across libraries for our users;
- Transforming our culture to support new services, innovation and emerging technologies; and
- Accessible content which involves liberating our content and enabling people to find, share and create content.

There are nine projects in the Re-imagining Libraries strategic plan. The Description and Cataloguing Project – known as Project 8 – was established in October 2008. Pam Gatenby is the project leader and the Director General of the National Library, Jan Fullerton, is the project sponsor. Representatives from each NSLA library are members of the group.

At an early meeting of the Description and Cataloguing Group a set of principles were agreed that would guide the work of the group. These are:

- Records for new acquisitions should be created in a timely manner to facilitate resource discovery.
- All resources should have an online record that is contributed to Libraries Australia (or to Te Puna in the case of the National Library of New Zealand) for access via Trove.
- Each NSLA library will accept primary responsibility for their state related heritage collections (or national collections in the case of the two national libraries), including responsibility for maintaining authority control.
- Different levels of cataloguing are appropriate but should conform to agreed standards for that level.
- A brief record is better than no record.
- Catalogue once and repurpose catalogue data wherever possible.

Taking into account these principles, the following objectives for the Group were endorsed:

- To improve access via Trove to Australian documentary heritage materials, especially unique materials.
- To use more productive and streamlined ways of processing and cataloguing in order to reduce costs and the time taken to provide access to the materials.

The focus is on unique materials because these are generally poorly represented in online catalogues, their uniqueness gives them special significance and they are core to the important heritage role of the NSLA libraries.

In shaping its action plan, the Description and Cataloguing Group took into account what was already happening in member libraries as well as internationally

in the area of resource description. A first task was to identify any innovative or different practices that could be considered. A major source of information and inspiration for the Project 8 is the RLG Partnership work program which is diverse, covering many projects that fall within thematic groupings. The aim of that program is to transform current operating practices and processes and to help research institutions define their future services – so quite relevant to the aims of the NSLA Re-Imagining strategic plan. They operate through working groups and have active events and research and publications programs which provide an invaluable source of information that we can benefit from. This is all accessible through their web site at <http://www.oclc.org/research/partnership/default.htm>. Two work areas of the RLG Partnership program that are particularly relevant to Project 8 are Mobilizing Unique Materials and Metadata Support and Management.

Description and Cataloguing Project Action Plan

The Project 8 team has developed a work plan that builds on activities already underway in member institutions and includes other actions that will enable us to move more quickly to improve access to heritage materials. The action plan came out of a workshop held in July 2009 that discussed current practices in member institutions and barriers to progress.

The six action areas are outlined below.

Action 1

Catalogue online all Australian and New Zealand newspapers in print and microfilm formats by June 2011.

Good progress has been made in this area over the years and Project 8 members are now close to achieving 100% coverage of their print Australian and New Zealand newspapers on Libraries Australia. Coverage of microfilmed titles is not as advanced but this will be given a priority by member libraries.

Action 2

Investigate the conversion of finding aids and lists of collections in print and electronic form into searchable data for access via Trove.

All libraries have lists that often include rich information about the contents of particular collections they hold. The lists can be paper based or in electronic form and compiled in a wide range of styles. They often include formatted data and quite specific keyword terms. The lists are used mainly to facilitate local access, either through reading rooms or the local catalogue. The Project 8 action, which has been funded by NSLA and is being led by the National Library, is to work out how these lists can be made available for searching via Trove. Many examples of types of lists have been collected and will be analysed with the aim of developing preferred models and guidelines for converting them for online searching. By exposing lists at the national level, this strategy has the potential to greatly improve access to thousands of unique items in local collections.

Action 3

Compile a Web guide to streamlined ways of describing picture collections that includes a description of the approach, information about any software or tools involved, and an assessment of the advantages and disadvantages of the approach for facilitating national online access and record sharing.

At the Project 8 workshop in July 2009, it was revealed that some member libraries are already taking some interesting approaches to managing access to their pictures collections but that the records created are not always contributed to the national bibliographic database. An example of a streamlined approach used by the National Library involves use of freely available MARC Edit software to create basic MARC records in a semi-automated way. The records are created from descriptive data in spreadsheet or tabulated form, a large amount of which is compiled by volunteers. The Library has used this approach to create thousands of individual records for pictures, ephemera, and some maps items in our collections. The records are all searchable through Trove. Action 3 aims to document such approaches and to identify their advantages and disadvantages from the point of view of access.

Action 4

Document and promulgate the data elements required in records to maximise the benefits of Trove search and delivery functionality.

The Trove team that worked on content and data issues during development of the Trove service, encountered many problems with using libraries' records to identify the material type an item described might belong to and the characteristics of the item. They have developed programming rules to extract the information they need but the rules are only effective if the data they work on is present in the record. If it isn't, then, for instance, records could be missing from the correct facets, or fail to be grouped with other records for the same work, or appear in the wrong category.

To help libraries understand how their records work within Trove and to make decisions about the level of detail to include in records, Project 8 will work with the Trove team to develop explanatory guidelines. These will also be useful for planning conversion of data for discovery through Trove and will serve as an invaluable teaching aid for newcomers to metadata creation. It is intended that the guidelines will be compatible with and become part of the Libraries Australia suite of standards and guidelines. They will also be available through the Trove contributors' forum which will be established in mid-2010.

The data requirement guidelines will also be considered in the context of each of the other Project 8 actions to help with determining recommended standards for the category of material each of these actions deals with.

Action 5

Develop a NSLA endorsed, or "one library" approach to managing manuscript collections effectively within resources.

This action area is potentially the most forward looking and contentious. It is concerned primarily with collections of personal papers and organisation

records. Marie-Louise Ayres, Curator of Manuscripts at the National Library of Australia, is leading this project. She has introduced major changes to the way the National Library processes and describes its manuscript collection. One change involves working closely with donors in order to achieve good collection control and description of collections early on as part of the acquisition process. The collection creators are required to box and list their collections before they are despatched to the Library and most collections are now semi-processed when they arrive. Another policy change that has had a significant impact on access to unprocessed collections is to assign priorities to collections which determine the level of processing a collection receives. Also, the Archivist's Toolkit, an open source product for managing accessioning and resource description functions has been implemented, introducing significant workflow improvements.

There is considerable interest among NSLA libraries in working together to identify current barriers to more efficient operations associated with processing and describing manuscript collections. It is recognised that these unique collections are generally poorly controlled and not well represented online in the national bibliographic database. Also, the libraries are facing mounting backlogs of inaccessible collections as staff numbers decline and the number of potential new acquisitions grows. However, to achieve more efficient work processes, to make collections accessible more quickly and to integrate discovery with other materials, some quite radical rethinking is required. To facilitate this, a detailed survey of current practices was conducted between March and April this year with an excellent response rate. The purpose of the first part of the survey was to collect comparative data on the characteristics of archival collections – for instance, size; annual growth rate; number of staff resources allocated and what they do; descriptive practices; systems used; state of control. The second part of the survey explored the archival processing tasks that are undertaken – for instance, appraisal; pre-acquisition work; relations with donors; physical processing and description. Policies on collections use and performance measures were also explored.

The data collected will be analysed with the aim of identifying best practices and to recommend a common NSLA framework or approach institutions can consider in order to achieve more cost-effective operations. This task will be completed by late September. The surveys used to gather the data draw heavily on one developed by OCLC research which was completed recently by many North American RLG member libraries. A benefit of following the approach taken by the OCLC survey is that we will be able to benchmark our performance against the RLG libraries.

Action 6

Geographic identification information in records

The last action in the Project 8 action plan is a recent addition that emerged from a meeting in March this year of NSLA CEOs and Re-imagining Libraries project leaders. The aim of the action is to develop approaches and standards for including geographical identification information in bibliographic records to support geospatial mapping of data. The NSLA meeting considered this was a

priority if we are to make our data more useful by exposing it through mobile or location aware services. A major problem is that most libraries' metadata does not include adequate geographic information and the issues surrounding standards and data interoperability are complex. The project will be lead by the State Library of Queensland with support from the National Library but it has not yet been scoped.

CONCLUSION

There are many complex issues facing libraries in providing easy access to their collections and meeting the expectations of users. By working collaboratively on some of these issues, the Re-imagining Libraries Description and Cataloguing Project aims to reveal through Trove the existence of important documentary heritage collections that are currently accessible only at the local level. It will do this by finding more cost-effective and streamlined ways of processing and describing collections that support national level, online access.

(Note: as a project report, this is not a refereed paper).

Reviews

Digital Information: Order or Anarchy?

Hazel Woodward and Lorraine Estelle (eds) London
Facet 2010 208pp ISBN 9781856046800 £44.95

Digital Information is a timely volume, published as the Apple i-pad sits poised at the peak of the revolutionary wave of technology that is washing over the information management industry. Editors Hazel Woodward and Lorraine Estelle have gathered essays from a range of key players from within the industry, including authorities in higher education, publishing, law and libraries to provide challenging perspectives on the digitisation of scholarly communication, and its impacts upon all stakeholders.

As the channels of access and distribution of information change at a rapid pace, discussion and debate rages as to the structures required to enable the democratization of information and the maintenance of standards that have governed the order of information. While Rick Anderson in Chapter 2 writes of crisis and confusion when considering the future of scholarly communications from the perspective of the library, in Chapter 3, Ian Russell's view, as a publisher, is a little more optimistic, as he focuses upon the challenges and changes that will undeniably occur. In the following chapters, as Colin Steele explores the potentials and perils of e-books, and Alastair Dunning outlines the increased access and interaction that digitisation of publications allows for users, the theme of cautious progression becomes apparent.

As well as the changing methods of information distribution, issues of access are of course of vital importance, and Graham Stone writes a concise overview of the need for flexible, intuitive resource-discovery systems that will successfully search across this trove of sources.

The editors of the volume hope that the discussions and issues raised in the book, while not providing a definitive solution, may go some way in creating a future where appropriate structures have been developed and put in place. They have achieved this in an easy to read and interesting publication. The spirit of collaboration and openness to new ways of thinking which will be necessary to avoid anarchy is emphasised by Mossink and Estelle in the final chapter about digital content ownership:

In the larger area of scholarly communication, stakeholders working together need to guarantee the broadest availability of scholarly output. Publishers, libraries and authors should value the contributions of each stakeholder and regard scholarly communication as part of the infrastructure of a global edifice of scholarship. All stakeholders need to aim towards forward thinking.

Kay Cantwell

Education Officer: ResourceLink, Brisbane Catholic Education

The Politics of Professionalism: A Retro-Progressive Proposal for Librarianship

Juris Dilevko Duluth Minnesota Library Juice Press
2009 231pp. ISBN 9781936117048 pbk US\$32

This is a controversial book, which requires slow re-reading if it is to be taken seriously. Dilevko, a LIS academic at the University of Toronto, advocates moving education for library professionals out of the academy:

once librarianship dispenses with the idea of professional status, as granted through graduate-level degrees from corporatized universities, then and only then can it begin to live up to its civic responsibility to be a positive social force working towards the meaningful educational development of all individuals (6).

Those words give a good clue to Dilevko's attitudes and objectives in writing this book. There is in fact much more in it than this quote indicates. A brief review cannot encompass this richness.

Dilevko's structure rests on his sweeping indictment of American higher education and the library schools it sponsors. Just how valid are his views about American higher education? He sees its pernicious effect on librarians transforming libraries into 'entertainment-oriented venues of information excess ... ultimately detrimental to "sustained reflection and contemplation"' (200). In addition to his rejection of 'academic capitalism' is his claim that the radically ill library profession requires surgery of a novel type of professional education to arrest its decline. He advocates:

intensive and extensive independent study (outside the parameters of the university) of a wide range of valuable books and journal articles in numerous subject-specific fields ... and a program of apprenticeship in libraries that leads to a renewable Library Specialist Certificate (134).

The term 'reintellectualization' is used to describe this educational process which is, he believes, 'one way to foster an ethical, healthy and sustainable environment' (201). What alternatives to this rigorous regime are available is not stated. Dilevko is quite open in stating that his 'controversial proposal' for a different type of professional certification, training and standardisation 'will not gain much, if any, support from current members of the library community' (58).

Dilevko's proposals are both adventurous and utopian. Some of his suggestions read like Swiftian satire. However, he is addressing real problems and challenging our notions of what librarianship is about amid the onslaughts of technological and ideological change. He is concerned with questions that need a more thorough analysis than he can achieve in 200-odd pages. The political implications of his proposals are left undeveloped, but his rhetoric points to some authoritarian

attitudes that few practising librarians would endorse.

This is nevertheless an important book, which requires a range of responses to do its contents justice. It would be a pity if Dilevko's provocations were not answered in more depth than can be attempted here. A comparison of his work with that of John E. Buschman (strangely absent from the bibliography) would be welcome. A new edition might also tone down some of Dilevko's more strident rhetoric. Citations should be pruned so that the book's intellectual quality and message emerge more directly with less baggage.

This work challenges, irritates and yet stimulates in unusual degree. It deserves a critical readership.

R L Cope

Acquisitions in the New Information Universe: Core Competencies and Ethical Practices

Jesse Holden London Facet 2010 134pp ISBN
9781856047395 £44.95

This book is a well written, strategic overview of all the components and relationships involved with library acquisitions.

Holden's main focus is the need for those involved in the acquisition process to be open to a new mindset regarding the current technology driven paradigm shift within the information industry and how this affects acquisitions. Instead of looking at the array of new e-based resources as just another different format to add to the list, Holden suggests that acquisition librarians need to completely re-think their approach in the light of the technological revolution currently underway within the industry.

Holden discusses the current situation in clear terms as well as devoting a whole chapter to requirements for the future. He also claims to provide answers to 'day-to-day problems', however I did not find this to be the case. While he presents a well written and clear explanation of the current role of the acquisition librarian and associated processes, he does not look at processes in enough detail to be used as a comprehensive 'how to' guide providing readers with 'approaches for dealing with an abundance of common, day to day problems'. He does provide, however, a well explained and logical strategic view of acquisitions, outlining the roles and relationships within this area of librarianship.

Holden uses industry jargon appropriately and defines terms where necessary. The text is enhanced with diagrams and figures, and the lists of further reading include relevant current references in various formats, not just print. I would

recommend this book for those currently working with acquisitions as well as those in the library industry, especially students, requiring a more strategic and complete understanding of the current and future implications of our changing information environment specific to acquisitions within academia.

Wendy Frerichs

RMIT University

The History of the Book in the West, volume 4: 1800-1914

**Stephen Colclough and Alexis Weedon (eds) Farnham
Surrey Ashgate 2010 526pp ISBN 9780754627760 £130**

The new Ashgate series *The History of the Book in the West: A Library of Critical Essays* aims to present ‘a comprehensive resource of the most significant published essays on book history in the West starting with the codex and finishing in the 20th century’. Interestingly, the selected articles are reproduced in facsimile, preserving not just the original pagination but the look and feel of the journals they originally appeared in. Book historians are of course unusually sensitive to such issues, but it is difficult not to read this design decision as a veiled comment on the increasing reluctance of libraries to maintain long runs of hard copy journals.

Alexis Weedon, the series editor and co-editor of the volume under review, is best known for her work in British publishers’ archives, in particular her book *Victorian Publishing: The Economics of Book Production for a Mass Market 1836-1916* (2003). In *The History of the Book in the West*, she has done a fine job of gathering readings that represent the diversity of methodologies in the discipline that has come to call itself ‘book history’, although her interests do show through in the final selection. Volume 4, covering the ‘long nineteenth century’, concentrates mainly on publishing, distribution and reading; there are some essays that deal with technological aspects of book production, but readers wanting a systematic account of printing or bookbinding in this period will need to turn to the reference list for further reading. A more serious weakness, perhaps, is the Anglocentricity of the selection: one essay, by Frédéric Barbier, deals with France, another by Jeffrey Brooks discusses Russia, and some others take a genuinely global view, but the emphasis is heavily on Britain and North America.

The introduction offers a richly textured summary of the period, and of scholarly approaches to it, noting the leading journals in the field (including the Bibliographical Society of Australia and New Zealand’s *Script & Print*), and signposting major books such as Richard Altick’s *The English Common Reader* (1957), Jonathan Rose’s *The Intellectual Life of the British Working Classes* (2001), and William St Clair’s *The Reading Nation in the Romantic Period* (2004) that are not excerpted in the volume.

On the evidence of Volume 4, *The History of the Book in the West* is a rich resource that will support teaching in any field that concerns itself with the production and consumption of printed words.

Ian Morrison

Tasmanian Archive and Heritage Office

Jean Primrose Whyte: A Professional Biography

Coralie Elsenore Janis Jenkin Clayton Vic Monash
University Information Technology 2010 164pp ISBN
9780980510843 (pb) 9780980510850 (web) AUD \$34.95

This is a wonderful and a curious book.

Wonderful because it is about the life of an exceptional person, a giant of Australian librarianship and education in the second half of the twentieth century. And wonderful because Jenkin's telling is contextual, psychologically insightful, thoroughly researched, and balanced in its use of documents and oral testimony. It leaves us in no doubt why Jean Whyte deserved her profession's highest honour (the H C L Anderson Award), and the esteem of her students, colleagues, superiors and peers. She was utterly committed to her work (in public, university and teaching institutions), and sadly unusually, just as serious contributing to the Library Association of Australia and leading on issues such as censorship and professional education.

There is a lovely informal style to Jenkin's writing, referring occasionally to herself ('as I read her letters...'; 'I will look, briefly, at a few...'), and comfortable with stating an opinion ('This consultation ... was a characteristic lacked by Brideson, Osborn and Chandler'; 'she appears to have encouraged more males than females, although career-oriented women, preferably without children were acceptable'). Her study is almost entirely sympathetic, in which subject and author's shared profession, gender, and rural South Australian and Monash connections must have played their part. It may not be what, in an earlier era, a Peter Biskup might have written, nor what a future Sylvia Martin will conclude.

And the curiosities? They start on the cover. All four of the author's names are provided, as if to go one better than the title name if not to tempt an identity thief. Then there is the subtitle, leading the reader to believe the book is a professional biography, a feature also stressed in Neil Radford's foreword. Yet the opening chapter covers the subject's childhood and schooling while half the long final chapter relates 'Themes from Jean's life'. This alone was so interesting one wished for more on her non-professional life. There is in fact a little extra, in Appendix Two, where the author tells the story of 'an interesting old codger', Whyte's father-in-law Alexander Macully. The other four appendices vary in their relevance, the so-called 'Brief history of the Graduate School of Librarianship, Monash University' being the least justified considering Whyte's overall career.

Considered along with Whyte's reflections as ALJ editor reproduced from its July 1972 issue presented as an 'interlude' between chapters three and five, the appendices feel a little too much like padding. As for the three-sentence Epilogue, though poignant it is simply redundant.

My one regret is that the biography was not published by Ancora Press, which Whyte founded and named. Perhaps a limited numbered run, with the proceeds going to the Jean Whyte Fund (as, generously, are those from this and the online editions)? Even as produced, however, it is a major contribution to Australian library history.

Michael Piggott

Supporting Research Students

**Barbara Allan London Facet 2010 192pp ISBN
97816046855 £44.95**

When faced with supporting research students for the first time, an academic librarian can turn with confidence to *Supporting Research Students* to help them to develop the information research skills of their students.

This new text is tailored for contact librarians who have minimal practical research experience. It aims to provide both an insight into the overall research process, an overview of the student experience, and offers practical suggestions for research support programs.

Barbara Allan is a UK based library manager and educator who has drawn on her own research experiences as the basis of this text, and provides guidance which is equally applicable in the Australian environment. Unlike the many 'how to' research texts directed at postgraduate students, the research process is contextualised in the librarian's realm. It is dealt with holistically in the early chapters, leading readers to an understanding of the student experience and aspects of research such as supervisor roles, proposals, methodology and writing up. This will allow librarians a greater ability to place their own roles into perspective, and an understanding of differing support requirements at different stages of the degree.

Information provided on research skills training is eminently valuable to the contact librarian in identifying researcher skill deficiencies and possible methods to address these. The section on supporting research students provides the crux of the text, including discussion of induction, individual and online support to students. The case studies provide useful ideas for adaptation to individual environments, and whilst the suggested communication strategies with students are topical, they may be of varying effectiveness depending on the size of the librarian's own researcher cohort. Self-assessment invites readers to actively engage in assessing their own capabilities in supporting students.

The section on research communities moves beyond the traditional realm of library support, however it is an important aspect of information collection and sharing in the Web 2.0 age. More detailed information on research data sharing and management support would have added to this book.

Easily readable, the book is well structured, and has clear objectives and summaries of each chapter. The signposting throughout each chapter is almost overdone, but stops short of disrupting the flow of the text.

Supporting Research Students provides a much needed lifeline for new academic contact librarians, and will help to refresh the skills and perspective of more experienced librarians.

Fiona Russell

Monash University

Collaborative Information Literacy Assessments: Strategies for Evaluating Teaching and Learning

Thomas P Mackey and Trudi E Jacobson (eds) London

Facet 2010 242pp ISBN 9781856047067 £52.95

So you thought delivering Information Literacy(IL) skills within a course was the ultimate in the library's responsibility for students. Well think again. After you have got through the hurdles of embedding IL into a course and collaborating with faculty staff to create meaningful activities, how do you discover if your strategies are successful? Read the book *Collaborative Information Literacy Assessments* to find out.

This is the third volume edited by Mackey and Jacobson, who have been looking at collaboration in information literacy *Information Literacy Collaborations That Work* (2007), and using technology to teach it *Using Technology to Teach Information Literacy* (2008). Thomas Mackey is Associate Dean, Centre for Distance Learning, at the State University of New York and Trudi Jacobson is Head of User Education Programs at the same university.

The current title concentrates on the assessment of information literacy programs, and has contributors from universities and colleges across America and the world (if you consider England and New Zealand to be the world). It encompasses various faculties and different approaches, from citation analysis to self-assessment.

The book has been divided into three sections: Business; Social Science and Education; and Humanities. The eight individual chapters have been co-written by faculty-librarian teams, who have collaborated to produce assessment strategies for courses developed within a discipline. A literature review, a model for implementation, reflection on the process and discussion of assessment data are featured in each contribution. Some examples of assessment tools are

included. The editors have thoughtfully provided introductions and summaries for each section.

The aim of the editors is to promote innovative methods for collaborative information literacy assessment, and to that end they have achieved their goal. Each of the contributors has adopted different approaches and methodologies to deliver effective information literacy skills for their students. You would be hard-pressed not to pick up some valuable strategies to apply to your own context.

If you are involved in information literacy at university or college level, then this book is a must read, if only to see what colleagues are achieving elsewhere.

Brenda Strachan

University of Southern Queensland