

Library Education 2.0: Shaping the librarian of the future

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Abstract

This paper addresses the changing nature of Library and Information Management education as it responds to an evolving context revolving around intensive information use within a globalised network environment. It is based on a thematic analysis of data relating to trends in information use, developments in LIM curricula, the requirements of the information industry in Australia and workforce planning for the future of the information profession.

The paper highlights a changing social environment in which economic value and competitive advantage are derived from knowledge creation, which is underlined by the policy direction of the Australian government. This changing environment necessitates new skill sets for information professionals, with a direct impact on the nature of LIM curricula.

The authors identify five potential models to meet the challenges facing LIM education in equipping their graduates for this evolving professional context.

Introduction

Library Education 2.0 refers to the need for the implementation of new paradigms within the teaching of Library and Information Management at degree level. Comparative research of international LIM curricula by Bawden et al (2007) has identified responses to the impacts of changing information behaviours at a number of LIM Schools through the use of Web 2.0 technologies to support student learning. Bawden and his co-authors have described the shift towards a LIM curriculum which matches a web 2.0 world as “curriculum 2.0”.

Information skills are needed more than ever and at a higher level if people are to really avail themselves of the benefits of an information society. (Centre for Information Behaviour and the Evaluation of Research (CIBER), 2008, p32).

Library and information management education is undergoing a period of reflection in response to a rapidly changing information world. The networked digital environment combined with evolutions in both software and mobile technologies present new behaviours in information access and use. The extent to which networked computing has created the capacity for global connection and communication has

had significant impact on, and has implications for, all nations, societies, regions and individuals. Anecdotally this is apparent if you think about how you work, learn and communicate with others, then reflect on how your parents might have done those things. Today's world has a less 'local' feel and more of a sense of connection at a distance. Apart from how this 'feels', what is significant about this global context?

Globalisation and the knowledge economy

The prosperity of a nation, geographical region, business, or individual depends on their ability to navigate the knowledge space. (Lévy, 1997)

A process of globalisation is facilitated by the processes described above – multinational companies can operate across national borders. One significant result of this is that production (the tangible process of making 'things') can be shifted wherever in the world the workforce is sufficiently skilled and sufficiently cheap. Labour is not cheap in nations like Australia (which in global terms is comparatively wealthy), so how can it remain competitive in this global environment? To remain competitive, Australia has to build its skill base, the quality of its workers, by maximising the value of its investments in education; and by creating skilled workers who are comfortable with technology, adaptable to change, and creative. This has been acknowledged at the highest level of government, with a recent initiative to promote higher levels of apprenticeships in Australia noting

Australian businesses will need higher level skills and the ability to continuously upgrade workforce skills to remain competitive. (Australian Apprenticeships, 2008).

This changed approach can be seen in terms of a shift from an industrial society to an information society, where economic success is derived not from the machines of industrialisation and raw materials (like coal), but from computing and communications technologies combined with ideas, effective use of information, and knowledge creation. Thus the evolution of the concept of a "knowledge society" or a "knowledge economy" – a term first coined by Machlup in 1962 (Godin, 2008) – posits an economy which is significantly supported by the way we use knowledge for competitive advantage. Increasingly, advantage will be gained not from making "things", but from developing and offering services and products within a global digital economy.

There is considerable anecdotal evidence of the evolution of this new economic context in Australia over the last generation or so. This period has seen:

- shifting off-shore of a wide range of activities from customer support and sales, engineering and maintenance and a broad range of manufacturing activities, which has seen a considerable loss of employment in these traditionally local activities;
- specific actions such as the closure of the Mitsubishi car plant in Adelaide; and
- the Rudd government's prioritisation of Australia's digital infrastructure in relation to the global digital economy through the creation of a specific Department for Broadband, Communications and the Digital Economy. (Department for Broadband, Communications and the Digital Economy, 2008)

This re-orientation spelled out by the new government emphasises the need to create workers who have the skills that the Rudd government wants for Australia to continue to compete in the digital economy. It will be necessary to take heed of Lévy's call as

The more we are able to form intelligent communities, as open-minded, cognitive subjects capable of initiative, imagination, and rapid response, the more we will be able to ensure our success in a highly competitive environment. (Lévy, 1997).

Education and the information professions

For the information professions generally, this evolution (or possibly, revolution), raises huge possibilities and exciting opportunities. Acknowledging these a number of recent research initiatives have been undertaken, both in Australia and overseas, to focus on the health and future development of the library and information professions and consider specifically, education for those professions, in order to assess how they might not only remain relevant, but take a leading role in responding to the new order.

In reflecting on the impact of this broad economic and technological context on LIS education Bawden *et al* note that:

LIS students, as future information professionals, need to be aware of these complex issues and innovations – technical and otherwise – and need to know more about them than an average user, so as to be able to cope in tomorrow's information world. This, of course, raises the question of how to incorporate these themes into the curriculum. (Bawden *et al*, 2007).

Given the pace of change, this creates significant challenges for library educators in balancing core professional principles with evolving technological skills and changing information environments. Current research from the United Kingdom suggests that libraries as

institutions, and by implication both the profession and those involved in their education and development, are not keeping pace with this change:

Libraries are not keeping up with the demands of students and researchers for services that are integrated and consistent with their wider internet experience...It would seem that the only effective strategy is for tighter integration of library content with commercial search engines. This is urgent given that the business case for libraries is beginning to look weak to many outside the profession (CIBER, 2008, p 30).

CIBER went on to note that in the mainstream corporate sector “no private sector corporation would survive on the basis of failing to invest in consumer profiling, market research and loyalty programs”. (CIBER, 2008, p 34).

Earlier, in considering LIS education from an Australian perspective, Myburgh (2004) noted the need to change from a focus on the containers (books, files etc) to the content – information and knowledge. She went on to discuss the impact this might have on the profession with a move away from a commanding focus on ‘libraries’ per se, to one looking at the structuring and delivery of information, on knowledge creation and the social context within which this work takes place. Complementing this ‘big picture’ viewpoint, there has been a growth in interest in the need for information ethics education as an integral part of any LIS program in order to better prepare graduates for the complex working environment in which they will operate. In support of such a proposal, the Association for Library and Information Science Education (ALISE), has developed a position statement outlining the desired outcomes for an information ethics program offered as a stand-alone unit of study or as integrated into existing subjects (2007).

Looking more specifically at how to attract and develop high-calibre information professionals, the Australian Library and Information Association (ALIA), working with the profession, firmed up the concept of a set of core skills and attributes applicable to the role of the information professional. Taking a ‘big picture’ view of the broad-based information profession, ALIA proposed a core set of skills and attributes which were seen as key ingredients for the successful future of professionals involved in the information industry. These included:

- refocussing on the organisation and dissemination of information to meet user requirements;
- self belief and energy;
- willingness to take risks;
- critical thinking skills;
- an awareness of professional image/ market/ awareness of own value;

- communication skills;
- valuing relationships/curious enquiring and have a very strong customer service ethic; and
- clarity of purpose and realising and communication of own value. (ALIA, 2005).

More recently, ALIA provided a forum for a process of reflection on the future education of the profession through its March 2008 Education and Workforce Summit. (ALIA, 2008). Over 50 delegates considered what was seen as a crisis in education and recruitment to the profession. Six major issues were noted, some that had emerged previously (as from the neXus project noted below), some that were new:

- Where is the skills shortage now and where likely in the future?
- The professional/paraprofessional divide and ALIA recognition;
- The binary qualification route – undergraduate/postgraduate
- Recruitment
- The role of employers in workforce development and
- Broadening the profession.

These questions, coupled with the set of broad skills and attributes noted previously have been complemented through the work of the neXus project, exploring the demographics and future skills of the library profession. As part of this project, Hallam identified the following key questions confronting industry leadership:

- How can we attract the right people, the brightest and the best to the profession?
- How can we make the career paths attractive and sustainable?
- How can we encourage employers to enhance recruitment efforts?
- How can we increase diversity and equity in the LIS sectors?
- How can we manage the geographic issues of recruitment?
- How can we get a handle on the reality of ageing and retirement?
- How can we develop a flexible workforce that enables employers to foster and support the aspirations of a multi-generational workforce?
- How can we foster management and leadership capabilities?
- How can we increase the career-long learning opportunities for LIS staff?
- How do we determine the right model for LIS education – for both entry-level courses and for career-long learning? (Hallam, 2007)

In addition to these specific points, Hallam (2006) has also raised the issue of the number of schools in Australia teaching in the LIS area (compared to similar countries elsewhere) as a possible negative

factor with too many institutions in Australia competing for the relatively small number of potential LIS students.

While these are serious concerns, the experience at Charles Sturt University's (CSU) School of Information Studies has shown that offering a fairly traditional course has proven to be successful with students and employers over many years. CSU provides over 50% of LIS graduates, both undergraduate and postgraduate, in Australia (Heazlewood, Pymm & Sanders, 2006, p. 331). This study, which looked at students who completed their qualifications in 2003/4 found that, from the 123 responses received, 82% reported that their CSU studies had been useful or very useful in providing skills for their current position and 75% described their field of work as librarianship (p. 336). This indicates that for the majority, the fairly traditional course being offered by CSU did meet their needs and also fitted them comfortably for the employment market (only a handful of respondents, 3.3%, described themselves as unemployed and looking for work).

In addition, a recent study by Sanders (2008) found that over 70% of the main employers of library staff stated no real preference for undergraduate or postgraduate qualifications. Supporting the findings of other research noted above, Sanders reported concerns that employers prefer staff to possess well developed generic skills in areas such as management, dealing with people and IT (Sanders, 2008, p.126).

The relative success (and popularity) with students of the more traditional course of study is echoed to a degree in many of the blogs run by new or recent LIS graduates (usually US based and working in traditional library environments). While the content of such blogs is of course wide ranging, much of the discussion around education and the curriculum of their MLS courses focuses on the more practical issues that they were not prepared for when entering the workforce (such as public presentations, how to get published etc). Examples can be found at <http://acrlog.org/2008/02/10/what-i-did-learn-in-library-school/> and <http://annoyedlibrarian.blogspot.com/2008/01/courses-i-wish-i-d-had-in-library-school.html>.

From this a complex picture emerges that indicates a profession that most think needs to change yet still appears to offer considerable opportunities for staff with more traditional skills in established roles. In order to help gain a clearer understanding of how the LIS courses at one tertiary institution, Charles Sturt University, were going to respond to this complex situation and face the challenges they pose, it was decided to research the state of the existing courses, endeavour to ascertain the requirements of the profession in its broadest sense, evaluate what has been done in other institutions around the world and from there, consider the practical options open to a university that, if it wishes to remain THE key player in education for the LIS field, is going to have to adopt. Standing still will not be an option.

Methodology

Over a six months long process, the School of Information Studies at Charles Sturt University (CSU) undertook a detailed investigation into the potential futures for the School in order for it to retain its leadership in education for the profession.

This process involved the following steps:

- Undertaking a literature review to ascertain what is being done within the LIS education sector elsewhere; the concerns being felt by the profession and responses to those concerns as well as more broadly, to governmental agendas relating to the information society or knowledge economy
- Bringing together a 'think tank' of around 20 key practitioners and employers within the profession for two days in order to draw out prominent themes, concerns and visions for the future to which the School would need to respond;
- Conducting half day focus groups in four capital cities with practitioners, clients and commentators on the profession, again in order to draw out their concerns and view of what the future may hold. Participants were invited based on their experience in a wide cross-section of the industry, including practitioners, educators and major employers.
- Establishing two staff research groups. The first looking through the existing curricula, highlighting strengths and weaknesses as perceived by staff and students; while the second looked at research production, focus and possibilities for future as perceived by those involved.

The findings from these four separate processes are currently being evaluated. Themes are being identified, directions tentatively being drawn, contradictions identified, resource demands articulated and options for the future being canvassed. The process is very much a consultative one and has had one positive effect already, in bringing together all staff in close cooperation on specific tasks aimed squarely at setting out the future for the School.

Results

At this stage, only broad brush findings can be reported. Firstly, both the literature reviews and the face-to-face focus groups and think tank discussions identified key trends in the information environment and its concomitant impact on the delivery of information services.

These included:

- What was seen as a sometimes paradoxical focus on both people and technology ;
- an awareness of the need for wider collaboration across different LIM/LIS/IM/KM/RM sectors;
- the variability of users/ segmentation within the market for information services;
- the central role of IT and our relationship with technology more broadly;
- core skills need to be sufficiently generic to be applicable across a broad and diverse range of organisational contexts;
- the customisation of services, environment and physical spaces;
- the impact of Googlisation – who needs an information professional when you have Google?
- user generated content;
- the perception of the need for instant gratification – need for information now;
- an expanded market place for information services leading to a competitive information environment;
- the need to focus research activity and build alliances within and without the academy;
- closer involvement with practitioners and the profession more generally;
- the need for flexibility, speed and innovation if educational institutions are to work more closely with practitioners;
- flexibility in responding to professional development opportunities;
- a need to position our industry more clearly as basic to the emergent knowledge economy and
- the myth that information must be free.

Discussion

The views on core skills and attributes emphasised principles rather than specifics. An example may be a deeper understanding of the principles associated with cataloguing rather than the technical intricacies of specific classification schemes, allowing these principles to be applied to metadata whether that be AACR2 to a catalogue record, Dublin core, html, or folksonomic tags to user generated digital content. Overall, it was suggested, LIS Schools need to develop a rounded LIS graduate who has strong critical thinking skills along with solid communication skills to assist in building effective relationships with key stakeholders. Graduates must also have a strong IT knowledge matched with their core skill of managing information.

One finding noted in the CIBER report into information behaviour of the researcher of the future, but not specifically mentioned in the face-to-face discussions, was that libraries need to become “more e-

consumer-friendly and less stodgy and intellectual". (CIBER, 2008, p 33).

As these trends were emerging, models of delivery for possible new curricula, taking into account these evolving factors, were also being reviewed. Thus a number of potential options are being considered:

iSchools

The recent emergence and success of the iSchool model, adopted by 20 US and Canadian LIS schools – see <http://www.ischools.org/oc/schools.html> for the complete list of schools comprising the iSchool Consortia, makes it an obvious path to explore further given the outcomes of the CSU research and the parallels that link these with the iSchool movement. It was noted that the top ten rated graduate LIS programs in the US for 2009 are all members of the iSchool consortium (US News and World Report, 2008).

The iSchools Caucus describes i-Schools as:

...being interested in the relationship between information, technology, and people. This is characterized by a commitment to learning and understanding the role of information in human endeavors. The iSchools take it as given that expertise in all forms of information is required for progress in science, business, education, and culture. (iSchool consortium, 2008)

They emphasise this relationship between information, technology, and people – one of the key themes that emerged from our own discussions. iSchools take a broad view of what constitutes information and the information industry, emphasising the symbiotic relationship of information and the technology that stores, delivers and preserves it. While this does not conflict with existing LIS education programs, it does suggest a change in emphasis – closer to Myburgh's view of information itself, rather than a concern for its containers. From this, a clear focus on the role of information technology and related systems emerges – essential in the 21st century to all aspects of the information life cycle.

While iSchools focus on information technologies and their applications. they do so in order to help better understand users and their relationship with information and its supporting technology. Thus, they are interested in educating information professionals to work across a broad range of organisational contexts (whilst still including the traditional library and school setting). This means that the courses of study an iSchool may offer may include a wide range of material including informatics, information management, knowledge management, or combinations within different organisational settings such as health informatics, business information management, information and communications, information management and

marketing. See for instance, the University of Washington course descriptions (2008).

This model is appealing for a number of reasons. It has proven to be successful in the US where it has seen traditional LIS schools grow considerably in both student numbers and prestige (see for instance, two graduates from the University of Washington iSchool being honoured at the Annual American Society for Information Science and Technology (ASIS&T) Awards - <http://www.ischool.washington.edu/events/headlines.aspx?id=945>). It has also enabled schools to articulate more clearly the concept of the “information professional” as being more than a librarian. For many of us (perhaps the most famous being Michael Gorman in his book *Our enduring values*), this is seen as a negative. However, the changing nature of the LIS profession cannot be ignored and for LIS educators in particular, it is critical that the changing environment be acknowledged and researched and strategies developed to ensure that the profession does continue to be relevant into the future.

The model also has an obvious synergy with current government initiatives around the digital economy and the recognition of the power of the ‘knowledge economy’ in developing Australia in the 21st century. Adopting the i-School model would be a fairly radical development in library and information education for the LIS School at CSU but it does appear to offer real (and tested) potential to address some of the key factors articulated above.

The evolutionary model – keeping a traditional library focus but also including a broader range of professional development activities and possible industry partnerships

This approach sees the School continue with existing programmes which gradually develop in line and in consultation with, major institutional partners such as the National Library, State libraries and various industry bodies (ALIA, Public Libraries Association). However, such consultation may also spread further to include less traditional partnerships with organisations such as publishers, IT developers. As the CIBER paper notes, building strategic partnerships will help expand the ‘walled garden’ view of information products (CIBER, 2008 p 33) This would see course offerings based upon a controlled industry focus, albeit that the view of ‘industry’ is a broad one. It would also provide more opportunities to become involved in a wide range of professional development activities that could be tailored to industry requirements.

Essentially, this evolutionary model is the approach that CSU has operated with successfully for many years. The major change would be to develop further the range of partnerships and thus input into course design and content and the development of targeted professional activities. It would not see the fundamental shift that taking the iSchool approach would require.

LIMIT/IS/IM/KM

This model, similar to the i-School approach, focuses on preparing graduates for a much wider range of roles than has traditionally been the case at CSU. With options to choose between separate streams, course offerings would be linked at the broad level, but less integrated as per the i-School model. However, this would still see a coming together of the key information disciplines – focusing on technology, content and organisations, and a move away from the traditional focus and strengths associated with librarianship specifically. Graduates from programmes of this nature have a broader skill set which prepares them for a range of organisational settings, but there would be issues regarding professional recognition and ensuring that core requirements for recognition in a range of areas are being met. This leads to increased complexity in course structure (and consequent costs to the University) and the accreditation process.

IM + discipline specific collaborative partnerships with other areas, eg. Health, Law, Business

While not as all encompassing as the iSchool model, this approach would build specific alliances with relevant discipline/professional areas. The specific configuration of this model would depend on institutional strengths, but could also be seen in a broader context where study across institutions would enable a wide range of options to be tailored to meet a specific need or interest. This approach would require considerable negotiation within CSU itself and also across the university sector more broadly in order to establish processes and procedures to enable this model.

A national iSchool

A cross-institutional collaborative model which would combine the strengths of individual institutions involved in information education nationally. This is the logical development of the previous model and would see existing LIS schools cooperating at a high level, developing specific areas of expertise and collaborating across all facets of the educational experience. While potentially attractive, this approach would be revolutionary and require considerable commitment across a wide range of institutions and educators.

Each of these models provides a level of complexity and challenges in redesigning current course offerings. Some are simpler to implement but address fewer of the emergent factors; some are evolutionary and thus would take time to become fully effective while others require radical change which, while requiring considerable resources and 'nerve' to implement, would probably address more of the factors enunciated previously.

Conclusions

As information and knowledge are increasingly recognised by business and government to be key drivers for social, technical and economic development, it is imperative that library and information professionals secure their place in this changing world (Hallam, 2007).

Hallam's comment underscores the concerns expressed at the beginning of this paper regarding the crucial role the knowledge revolution has in the development of Australian society. The profession has recognised the need to acknowledge this fundamental shift and 'get on board' if it is to survive and thrive in this new environment where, although successful information management is seen as essential for growth and progress, the skills traditionally associated with LIS professionals are seen as insufficient.

Building physical and online information spaces, managing, preserving and exploiting that information, adding value to create knowledge, harnessing the power of search engines and IT more generally and taking the lead in helping others become empowered through information practice are key areas for the new professional. But at the same time, there is still a need for strong client skills, and an understanding that, despite the demands of the new knowledge economy, there is a place for the more traditional activities and attitudes that have been associated with the profession. But they are no longer sufficient on their own.

For CSU, perhaps more than for other LIS schools, the challenge is to maintain their position in the profession while at the same time, acknowledging the need to change and adapt, evolving to meet the needs of a society looking to the creative use of information and its related technologies to maximise the value of Australia's human capital. With CSU as the major supplier of library graduates in Australia these issues are particularly relevant to the School of Information Studies which has both a vested interest in the continuing health of the profession and a responsibility for its ongoing well-being. This is not simply an altruistic approach, for its own future the School is obliged to provide an educational product and experience which meets the needs of an evolving professional environment. To maintain its position of leadership within the market the School needs to continually analyse these trends, not least as students complete their programme of study over a time period that can be six or more years and must exit with a qualification that is industry relevant at that time. An evolving industry environment requires an education programme that is evolving in step with its requirements.

Finally, research, vision and aspiration can provide direction; but funding, resourcing, organisational consensus and institutional support

will be needed to meet that vision. That may well be the next major challenge to be faced by LIS educators.

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