ARTICLE

Finding and forming the bold and the fearless: the future of LIS education in Australia

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Abstract

The education of information professionals needs constant re-examination and renewal if it is to remain relevant to the needs of society. Rapid change in the environments in which information is managed calls for the re-evaluation of old skills and the development of new skills. From our perspectives as a new professional and an experienced academic we define some of what is needed to enable LIS education to evolve quickly so that it can produce the ‘fearless information professionals’ that are needed. We aim to stimulate robust debate, reassessment, and revision.

Keywords
LIS education; GLAMR sector; professional development; professional qualifications; research expertise; advocacy; information professionals

Introduction

Society and its challenges grow in complexity each day – and yet opportunities abound. The future is in the hands of the bold and the fearless – those willing to take risks; go ‘big’; break down disciplinary, social, and professional barriers; and go against convention. The fearless information professional is undaunted, unequivocal, and unabashed. (Bertot, Sarin, & Percell, 2015, p. 15)

The education of information professionals needs constant re-examination and renewal if it is to remain relevant to the needs of society. The ideal information professional, we contend, is one who, as well as possessing the traditional skills and a good knowledge of the history of the information professions, is willing to explore and understand diverse concepts beyond the traditional purview of those professions. Technological change and innovation requires visionaries who can develop new systems, new processes, and new ways of thinking. Themes such as these are reiterated daily on Twitter:

- LIS education does not reflect the variations in practice in different types of libraries - Chawner & Oliver (@RAILS2015)
- The prospects for library & info professionals are bright: many new and different jobs are emerging @ALIANls7 #nls7sat Jaye Weatherburn (@jayechats)
60% of students are chasing jobs that will be rendered obsolete by technology

With this article we seek to stimulate discussion about what is needed to ensure that the education of information professionals remains relevant. We do this from our respective perspectives as a new professional working in a data-intensive environment encompassing digital preservation and research data management, and an academic for over thirty years who trained as a librarian in the 1970s. Although our perspectives appear to be worlds apart, we share the belief that information professionals must be better equipped by their formal education to participate in a rapidly changing environment. We believe that every new graduate or professional, and every educator in the information professions, must ask themselves what their contribution will be. Our article is unashamedly an opinion piece, and our aim is to stimulate robust debate, reassessment, and revision.

Educating information professionals for the future

In an article published in 2001 titled ‘Losing the quality battle in Australian education for librarianship’, Ross Harvey maintained that ‘Something is wrong with university-based education for librarianship in Australia’, and suggested that ‘the situation may even be so grave as to be fatal’ (Harvey, 2001, p. 15). He asked, ‘how can we improve the quality of education for librarianship in Australia?’ (p. 20). This article drew a significant number of comments in the Australian Library Journal and other forums, ranging from unimpressed readers (‘What tosh!’) to more positive comments (‘you said many things that needed to be said’; ‘thanks … for raising an important and controversial issue.’). Joanna Sassoon suggested that ‘we do need to continue to have a long and vigorous debate about the issues raised by Harvey, a debate central to our professional survival and growth’ (Sassoon, 2001, p. 109). In a 2011 update of his article, Harvey found that the situation had not proved fatal, but that education for librarianship appeared to be in decline: the field was still ill-defined, fewer doctorates were being produced (affecting academic renewal), and even fewer library and information studies (LIS) schools had a critical mass of staff.

Rapid changes in the environments in which information is managed and matched with users are leading to difficulties in defining what it is that information professionals do. ‘We are losing a secure sense of what field we work in’ (Harvey, 2001, p. 15), and in 2016 the field is more diffuse and even harder to define. Because the information world is changing so rapidly, traditional skills are not being applied as widely as they could be. John Palfrey, the founding chairman of the Digital Public Library of America, comments that information professionals are not using their skills to their best advantage in the digital realm: ‘Librarians and archivists are not involved enough in selecting and preserving knowledge in born-digital formats, nor in developing the technologies that will be essential to ensuring interoperability over time’ (Palfrey, 2015).

New skills are needed. Twenty-first century information professionals, if equipped with a broad range of appropriate skills, should be well positioned to assist members of the client groups they serve to adapt to the massive changes they will encounter. We need to identify new areas that can benefit from our skills and move into them. A case in
point is for librarians to recognise opportunities to redefine their roles, such as in implementing procedures to support the entire lifecycle of research data in their institutions and organisations. There are also new opportunities in the curation of digital information to be explored and embarked upon. Moving into these new areas brings challenges: how do educators rapidly develop and teach all of the core streams of information studies required by a capable professional in the new digital world? How do they ensure that their programs include instruction in information architecture, knowledge management, archives, recordkeeping, digital library management, data science, digital preservation, and the management of research and open data – examples of areas that will keep information professionals relevant and valuable?

A new concern raised by Harvey in 2011 was the need to widen the reach of LIS, especially regarding information technology. We need more robust discussion about the melding of information technology with libraries and archives, which we believe is the key to the future success and empowerment of information professionals. Technology will continue to constantly evolve and change at a rapid pace and, at present, ‘too few librarians and archivists have the technical ability to lead the way’ (Palfrey, 2015). Our increasingly data-intensive information world demands new educational programs that ensure higher levels of understanding and literacy in the generation, use, management and value of data. Carlson, Fosmire, Miller and Sapp Nelson (2011) detail twelve core data competencies that we believe should be seriously considered for integration into LIS education course structures. They include analysis, processing, description, interoperability, visualisation, and preservation of data – competencies that would help to prepare highly skilled information professionals who are able to work across galleries, libraries, archives, museums and records (GLAMR) institutions, as well as in business and government organisations.

Harvey was also concerned in 2001 and 2011 that there was no clear disciplinary locus for librarianship in universities. This has reduced the visibility and increased the vulnerability of LIS programs in the political manoeuvrings that are key to surviving and thriving in universities. As Kerry Smith, retired senior LIS academic and former President of ALIA, notes:

There are not many information studies schools in Australian universities and those that exist are all victims of the politics of the universities under which they serve. Sometimes these politics are most favourable and academic colleagues and students survive and thrive, and in other cases the situation can be quite the opposite and challenging. (ALIA, 2014, p. 4)

It is imperative that we define the field (or fields) for which we are educating. Unless this happens our LIS schools will continue to be marginalised in the universities where the attributes and skills we are seeking are taught. And when we do define the field/s we are educating for, an important question is raised: can one qualification hope to cover the whole field (or all of the fields)?

The problem of visibility of LIS education in universities is not limited to Australia. The top-ranked LIS school in the US (U.S. News & World Report, 2016), at the University of Illinois at Urbana-Champaign, recently changed the name of the Graduate School of Library and Information Science to the School of Information Sciences. This change acknowledges the school’s need to focus on the many technical skills required
by better-equipped information workers of the future and to ‘meet the need for well-prepared information professionals who can adapt to an ever-changing environment’ (University of Illinois, 2015).

A mindset shift

Tired stereotypes of the role and persona of the librarian, archivist and records manager remain in place – a meek and mild identity is perpetuated over and over (Keer & Carlos, 2015; Cox, 2006). A change in mindset is needed: we must now be clever custodians who find, provide access to, and preserve information. And we must nurture dynamic leaders who are prepared to put time and energy into being inspiring educators.

Steve Wheeler writes about instructional technology and social media as disrupting education: ‘Much of mainstream education fails to align to the culture of our young people and its traditional methods no longer fully addresses the needs of society. If we want education to be effective, then some things need to change. And because of technology, change is inevitable’ (Wheeler, 2015). What we must do is disrupt education for information professionals so that it addresses the needs of society and provides its graduates with a skillset that enables them to thrive in a fast-changing environment.

Siloed qualifications are also in need of disruption. The qualifications that are currently accredited by professional bodies such as ALIA (ALIA, 2016), ASA (Australian Society of Archivists, 2016) and RIMPA (Records and Information Management Professionals Australasia, 2016) largely remain in their separate silos. They attempt to produce all-round librarians, archivists, or records managers who are competent within their respective silo, but, although they may have an inkling of other fields, are not competent to work in them. They may also be uncomfortable outside their silo.

Information architect Peter Morville suggests that while ‘seeing the big picture is more important than ever’ it is not likely to happen easily.

It’s not simply that we’re forced into little boxes by organizational silos and professional specialization. We like it in there. We feel safe. But we’re not. This is no time to stick to your knitting. … Tomorrow belongs to those who connect. (Morville, 2016)

There is much to suggest that this demarcation of territory by professional bodies will not remain relevant for much longer. For example, structural changes in universities are now bringing together the formerly disparate professions. A new mindset is needed at all levels – by professional associations, information professionals, and educators – that will enable the development and acceptance of new qualifications that meet the needs of change.

Educators should no longer be preparing their students for work in segregated GLAMR institutions, where turf battles have been fought in the past over the ‘purpose of libraries, archives, museums in the information age’ (Marty, 2014, p. 615). Instead they need to prepare people with a broader knowledge of and more open-minded approach to wide-ranging changes that are occurring in the knowledge infrastructure. The challenge
for LIS educators is to begin investigating and teaching about the expanding arena within which information professionals can locate themselves in positions of power.

The report quoted at the beginning of this article claims that ‘The future belongs to those who are able to apply critical thinking skills and creativity to better understanding the communities they serve today and will serve 5-10 years down the road and a range of trends – in information, technology, workforce needs’ (Bertot, Sarin, & Percell, 2015, p. 15). Walters and Skinner (2011) write of the change that is needed in order to move away from the front-facing public service mindset and back-of-house technical services towards a ‘trio of strong infrastructures, content, and services’, in which infrastructure includes ‘facilities, technologies, and the human expertise applied to the organization’ (p. 6). They propose new roles to help respond to the changing needs of researchers, scholars, teachers and students, for which our educational institutions should be preparing current LIS graduates. Among these new roles are those of systems builders, organisational designers, collaborative network creators, and content producers and disseminators.

Thus it is obvious to us that new models of LIS education are required. In a crystal-ball-gazing exercise, Harvey (2010) predicted the development of two streams in the librarianship, archives and records professions. One is principally concerned with adopting, implementing and using new technologies to serve the user. The other is a curatorial stream, primarily concerned with maintaining the sources of information, rather than the means to access and exploit it. This model, although too simplistic, illustrates that new conceptual thinking is needed to reshape professional qualifications.

Although individual LIS schools may lack the range of expertise in their academic staff required to produce fully effective graduates with new skillsets, the expertise is available collectively, particularly if input from working information professionals is sought. Several models could address this situation, among them that of a consortium that buys in or leases, develops, maintains and delivers specialist sequences of subjects. But the development of such a model has been inhibited by competition, which is a consequence of there being too many information studies schools competing for a small market share. Schools do not willingly pass a student and the income they generate on to another school. Chawner (2015, p. S25) suggests that the WISE (Web-Based Information Science Education) consortium (http://wiseeducation.org) may be a helpful model to facilitate this.

The challenges faced by educators for the information profession in Australia fall into four categories: Pedagogical – teaching well and encouraging learning; Curriculum – identifying relevant and appropriate content, skills, practices, theories and ways of thinking; Economic and political – responding to the pressures within Australian educational institutions; and Relationship with the profession – building and maintaining connections with employers, professional associations and vendors. If educators are able to balance these often competing challenges, their programs will produce graduates who possess appropriate professional ways of thinking and relevant technical skills, are excited about their career, and are prepared to put time, energy and money into improving their professional and technical skills on an ongoing basis throughout their career. If educators cannot find the right balance, then they have failed.
In both 2001 and 2011 Harvey was concerned that very few Australian schools had anything near a critical mass of staff to provide adequate advising of students, professional service, teaching and research. This situation has worsened since 2011. The profile of LIS in universities is not helped by the fact that LIS educators in Australian universities are aging, with ‘over half of Australia’s information educators looking to retire in the next 10 years’ (Partridge, Hider, Burford & Ellis, 2014, p. 275) and with very few now under the age of forty. Increasing use of practitioners as sessional staff in LIS programs can supply some of the needed current industry experience, but few practitioners have the qualifications needed to be accepted as university-level academics. However, effective LIS programs must do more than impart professional knowledge and skills; they must also nurture academic talent to replace retiring academics. The presence of enthusiastic new talent among educators in LIS schools could help encourage new professionals to structure their thinking about their future careers early; as McGlynn (2015) writes, ‘taking the time to hash out what it is that makes you tick as a librarian-to-be can be the most important thing you do as a library student, in order to inform your practice in school and in your career with unmistakable purpose’.

**What’s needed?**

We have already identified areas in LIS education which require attention, including desilooing qualifications, changing mindsets, nurturing younger people to become academics, and sharing expertise across programs. We have identified three additional areas that we believe are either lacking completely or require more attention if LIS education is to be improved. This is by no means a complete list of areas requiring an overhaul.

**Research expertise**

Research skills were once considered an essential part of the education of information professionals, but seem to have almost disappeared from the LIS curriculum. By ‘research’ we are, of course, referring to something rather more than a Google search. It includes much more – deep reading, critical thinking, analysis, and the synthesis of ideas. Research skills equip people to evaluate published research and apply the findings of that evaluation, and to carry out research projects of the kind that can inform, improve and refocus practice so it meets client needs. While some of these skills are often included in other parts of the curriculum – information literacy for instance – they do not emphasise the imperative that practice be based on research. Although this evidence-based practice approach has its own conference (http://eblip8.info/about/) and journal, *Evidence Based Library and Information Practice* (http://ejournals.library.ualberta.ca/index.php/EBLIP), its lessons are not yet being picked up and applied widely by information professionals.

The lack of the teaching of research skills in LIS Australian programs has further implications. Combes, Hanisch, Carroll and Hughes (2011) have noted limited interest in undertaking higher degree research (research masters or PhD) among the nearly 400 enrolled students and graduates they surveyed. This lack of interest ‘is a potential constraint for the LIS profession which should aim to lead thinking, practice, learning and teaching in a rapidly evolving information environment where organising and using
information and creating knowledge is core business’ (pp. 141-142). Closely linked to this is concern about producing enough credentialed LIS teaching staff in universities. Macauley, Evans and Pearson asked in 2010, ‘will the lack of PhD production bring about the demise of LIS as a specialized field of study in Australia?’ (2010, p. 263). The research mission of Australian universities requires LIS schools to generate some of their income by attracting research grants and publishing. Therefore, new academic staff are recruited for their capacity for research and, more specifically, for generating income from their research activities. Their recent professional experience and expertise may well come second to this.

The rapidly changing technological landscape is creating ‘a growing sense of disarray and disjunction between established forms and new and exciting, but unproven, possibilities’ (Edwards et al, 2013, p. 23). There are many potentially rewarding paths for LIS educators to take within this landscape as they build the body of their research and position themselves more strategically at the forefront of the changes. While the in-depth thinking and research of academic study are invaluable for building the profile of the information professions, it is also important that support is available for practitioner–researchers who engage in equally valuable and useful research that is of immediate benefit.

Advocacy and radical thought

Librarians and archivists have an almost obsessive concern about their low status. We are often poor at effective advocacy and unable to convince crucial stakeholders, especially those who control the purse strings, of the value of our skillsets. It is sometimes true that ‘librarians and archivists do not have the support or, in many cases, the skills they need to play the central role in preserving our culture in digital format’ (Palfrey, 2015), but this is no excuse for remaining unskilled in and unaware of the art of effective advocacy. Libraries, for example, ‘are still trying to understand how they can most effectively embrace the radical changes needed to remain relevant, and are realizing that an attitude shift is required for solutions to take root’ (Johnson et al., 2014). There are multiple routes to addressing this gap, including curriculum reform, courses on radicalism, and collective action.

The Salzburg Curriculum (https://salzburg.hyperlib.sjsu.edu/), developed from a workshop held in 2011, states that the mission of libraries and museums is ‘to foster conversations that improve society through knowledge exchange and social action’. It has not gained as high a profile as it deserves. Its most innovative feature is a major section on transformative social engagement, which describes the skills needed to take ‘the core concept of service from a passive stance—being ready and prepared to serve—to an active one.’ Topics in this section include Activism and advocacy, Social responsibility, Critical social analysis, Conflict management, and Understanding community needs. Ideas from the Salzburg Curriculum need to be incorporated into LIS curriculum.

In early 2016, an experimental Radical Librarianship ‘special topics’ course was introduced at Simmons College in Boston, Massachusetts, aiming to use critical theory to examine modern library systems and services. Integrating courses like this into our educational institutions could develop and promote an empowered forum for students and educators to discuss the notion that libraries cannot be neutral, to ‘examine libraries
as socio-political institutions’, and to ‘analyze their role as civic spaces with the potential to foster civic engagement and debate’ (Saunders, 2015). Imagine the impact of these courses in Australian LIS educational institutions. Imagine the graduates entering the workforce fueled by these ideas, ready to inject new political agendas into our GLAMR sectors and to lead much-needed change.

Radical thought spearheaded by librarians is becoming more prevalent across the world. It is being implemented by groups as the Radical Librarians Collective (http://rlc.radicallibrarianship.org/) in the United Kingdom, which is associated with the Journal of Radical Librarianship and runs ‘cryptoparties’ (workshops and information sessions that teach information security skills and promote privacy awareness). Its members also gather for discussion of radical thought, both physically at informal non-conferences in the UK, and online for a global audience to participate using Twitter. In the US, Alison Macrina runs the Library Freedom Project (https://libraryfreedomproject.org/author/nerdison/), teaching ordinary citizens how to protect themselves from both state and corporate surveillance. In Australia libraries such as the Melbourne Library Service are building on the work of the Radical Librarians Collective and Macrina by running free community cryptoparties. In New Zealand, RadLibs Aotearoa are ‘a collective and critical space for library and info workers. Similar to movements elsewhere but with a Pacific twist’ (@Radlibsaotearoa).

In addition to increasing radical thought and action, information professionals must also find ways to advocate for the importance of their knowledge and skills for GLAMR institutions and for business and government, both locally and globally. The GLAMR sector in Australia could follow the lead of libraries whose online parodies are capturing attention – by using a range of platforms and media it is possible to spread to a global audience an awareness of the value of their collections and better promote their use and value. Among libraries that have embraced this idea is the Topeka and Shawnee County Public Library in Kansas, USA, which took advantage of the Taylor Swift juggernaut in the parody video ‘Check it out’ (2015) it produced for National Library Week. Similarly in New South Wales, Australia, Shoalhaven librarians performed ‘Librarian Rhapsody’ (2015), a new rendition of the Queen classic, as an innovative response to the Shoalhaven City Council’s request for its librarians to detail their achievements over the preceding twelve months (Wood, 2015).

Continuing professional development

Combes, Hanisch, Carroll and Hughes write, ‘the profession as a whole needs to recognise the importance of lifelong learning and ongoing skill development’ (2011, p. 142). In the library and information professions this need has been recognised and debated for many years. Many opportunities already exist for continuing professional development (CPD). MOOCs, such as the one on advocacy offered by the University of Toronto (2015), provide one opportunity. Online tutorials, such as the W3C Schools tutorials (http://www.w3schools.com/) and webinars provide further opportunities. Professional associations such as ALIA and ASA operate professional development schemes, and there are many other options to pursue for those who seek to extend their knowledge and abilities.

A significant area where there is a need for more CPD opportunities is in increasing the awareness of common issues and challenges faced by GLAMR institutions in a rapidly
changing environment. Cross-sector job swapping, workshops about, and tours of different knowledge institutions are some ways to improve this awareness, and these experiences could help equip participants with a better grasp of common problems. Armed with new understandings they could more readily work together to find and implement solutions to these problems. Collaboration along these lines could even serve to extend the range of places in which new graduates find work beyond GLAMR institutions, such as in business or government departments. Combes, Hanisch, Carroll and Hughes predict that ‘LIS graduates entering this new landscape may never bear the title librarian or work in a traditional library. Instead, they are the information managers of the future who may work in a variety of roles in global corporations, for government, or as consultants to small business’ (Combes et al, 2011, p. 142).

A 2015 report from the University of Maryland is clear about the importance of recruiting students who can thrive in rapidly changing environments and are willing to reinvent themselves through lifelong learning:

> future information professionals need to thrive on change, embrace public service, seek challenges that require creative solutions, and be change agents. Not all of these are learnable traits, and thus it is imperative that a future MLS program seek and recruit potential students who want each day of their careers to be a new and different opportunity to facilitate and enable the change and transformation that individuals and leaders in their communities seek (Bertot et al, 2015, p. 14).

Formal opportunities for CPD exist already and can be further developed. Graduate certificates offered by educational institutions in relevant fields could provide links between traditional LIS study and areas such as marketing, IT, and management, and contribute to the shaping of adaptable new graduates who can proactively engage in ongoing ‘professional development across related subject areas relevant to the modern workplace’ (Combes et al, 2011, p. 142).

**Conclusion**

As the writings and examples we have referred to confirm, most of what we have written in this article has been expressed before. Our intention is to offer a different emphasis on some components, especially on the need for continuing professional development and radical thought and action. There is much more that LIS education programs could incorporate to prepare new information professionals so that they emerge from the programs and begin their careers as aspiring technology evangelists, information evangelists, user design experts, and information architects.

The survival of library and information science education depends on capable, connected educators who are involved with or aware of the latest global developments in information management, digital preservation, and information governance – educators who can inspire the thinkers, the entrepreneurs, and the activists that are desperately needed in the GLAMR sector. LIS educators need to think about how best to encourage practitioner-researchers, nurture younger academics, and increase the focus on radical thought and social responsibility within the constraints of the university.
system. But if they can’t achieve this, they must begin conceiving and constructing new models that can provide this education.

Openness to new mindsets, adaptability, and new conceptual thinking are some of the elements required to prevent information professionals from becoming obsolete in a constantly shifting information landscape. Passionate educators are needed who are able to inspire and create an environment from which an innovative new breed of information professional can spring. Unless this new breed is produced, information professionals will become irrelevant in areas where they should be predominant, failing in their mission of preserving cultural heritage and providing universal access to information.

Our proposed agenda for advocacy and action by energised LIS educators and information professionals includes the following:

• Get clear direction from the information professions about what they require of graduates of LIS programs
• Encourage professionals to invest in their own future on an ongoing basis
• Establish a workable mechanism for sharing courses among schools of information studies
• Encourage professionals and employers to collaborate with academics to investigate and research professional problems, preferably in a regular ongoing forum
• Encourage new information professionals to undertake PhDs and seek employment as academics to replace a retiring workforce of LIS educators
• Investigate the role of professional associations in the quality assurance of education for the information professions, and determine if they are doing enough
• Set up diverse streams that incorporate traditional grounding in the history and theory of libraries, archives, and recordkeeping, as well as IT, data science, business and knowledge management, research data management, and digital preservation
• Increase the involvement and participation of LIS revolutionaries in setting the agenda for the information professions in Australia
• Integrate mandatory IT skills testing before admission to courses to ensure that students are technically capable of beginning to tackle the bigger issues immediately

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**References**


Harvey, R. (2010). Curation in the curriculum: Equipping the profession to ensure the preservation of information. iConference 2010, University of Illinois at Urbana-Champaign, 3-6 February.


