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Hallam, Gillian C. (2007) *Education for library and information service*, in Ferguson, Stuart, Eds. *Libraries in the twenty-first century: Charting new directions in information services*, chapter 18, pages pp. 311-336. Centre for Information Studies, Charles Sturt University.

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Education for library and information management

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Introduction

There is much discussion in the literature about the challenges facing education for workers in the library and information sector (LIS). Michael Gorman, President of the American Library Association in 2005-2006, has gone so far as to declare that there is a “crisis in LIS education” (Gorman, 2004; Berry, 2004; Seavey, 2005; Mulvaney & O’Connor, 2006; Dillon & Norris, 2005; Stoffle & Leeder, 2005), although Gorman later modified the statement to indicate that there were perhaps “critical issues”, rather than a crisis per se (Gorman, 2006). The critical issues he referred to were multidimensional, and indeed interlinked, encompassing the perceived lack of a core curriculum for the discipline, the apparent gulf between LIS education and LIS practice, and the pressing need for career-long learning and development. Here in Australia, Harvey asserted that “something’s amiss with university-based education for librarianship in Australia” (2001, p.15). Levett lamented in his editorial to the *Australian Library Journal* that Harvey’s article had met, disappointingly, with “resounding silence” (Levett, 2001, p.1). The topic of LIS education appears to attract plenty of criticism, but very few constructive ideas to respond positively to the challenges presented.

One of the fundamental issues that appears repeatedly in the literature is the vexing question about the positioning of the profession: Is LIS a graduate profession of highly skilled individuals valued for their expertise and professionalism or is it a profession of anyone who works in a library, regardless of their qualifications? (LIANZA, 2005) While the concept of a profession has a number of intrinsic characteristics which encompass the social relevance of the field, the autonomy of the practitioner and the existence of a code of ethics, it is important to consider some of the key attributes of a profession within the context of LIS education. These attributes may include:

- The existence of a body of theoretical knowledge serving as the foundation for professional practice
- The need for extensive education and training
- The existence of a formal professional association
- The development of specific standards of professional competency deemed appropriate for entry into the profession (Bramley, 1969, p.7)

Rochester argues that the cognitive base is central to the ethos of a profession: “The main path for advancement of any profession is the development of the unique and identifiable knowledge and skills that it professes. This gives social recognition and prestige to the profession; it leads to material rewards, relatively secure and well paid and interesting work, with the hope of a career path. It also means the relative freedom of the professional in their day-to-day work. This advancement has been the pursuit of librarians in Australia” (Rochester, 1997, p.1).

Across all disciplines, there is considerable debate about the current challenges facing those involved in professional education, whether at the institutional level of university, college or faculty, or at the personal level of educator. Within the LIS profession, these are indeed challenging times for educators who are directly responsible for the development of the new information professional – while concurrently contending with the multiple demands of students, employers, professional associations, university management and governments. While on the one hand, “seismic changes” (Feather, 2003) have made themselves felt in the field, through the application of information and communications technologies, new approaches to information provision and access, reforms across higher education and indeed changes across society as a whole, many of the issues and concerns have been consistently discussed for decades. Much of the argument has hinged on the disparate viewpoints that exist between LIS educators and LIS professionals, and the vociferous debate continues today, peppered with ideas such

as ‘mistrust’, ‘misunderstandings’, ‘tensions’ and ‘the need for consensus’. There are exhortations to engage in “genuine dialog” (Moran, 2001, p.52) or to “re-engineer the relationship between LIS departments and the profession” (Feather, 2003). This chapter does not seek to resolve the arguments, but rather to invite readers to engage with the range of issues that confront LIS education in Australia and to consider the role that they might play in the future to help change these long-standing problems and concerns.

The Australian context is introduced by a review of the historical perspectives of education for the LIS sector in this country, moving from the apprenticeship model to that formal education. The chapter also explores the need for standards of professional education, achieved in Australia through the course recognition process undertaken by the professional association. As each educational institution submits an annual course return, an analysis of the data on the student cohort and the staffing situation is presented, framed by the changing environment of education in Australia. The predominant, recurrent issues are discussed: the scope of the curriculum, the perceived gulf between research and practice, and the need for career-long learning. The chapter concludes by reinforcing the idea that the future of effective and relevant LIS education is a matter for all people involved in the profession to work together to ensure that the profession does have a real future.

Historical perspectives of LIS education

Bramley (1969) provides a valuable overview of the development of professional education, outlining the evolution of education for the library profession in both the United Kingdom and the United States of America. One key factor in the history of professional education was the introduction – and acceptance – of formal examinations by specific professional associations, with an associated syllabus that represented the core body of knowledge of the given profession. Following the establishment of the Library Association in the United Kingdom in 1877, the Council of the Association focused on the need for formal training of library assistants, with much discussion about the relative merits of the apprenticeship approach, as opposed to professional examinations. Examinations were indeed introduced, with the first one being held in 1885 with three candidates. Initial topics encompassed English literature, an understanding of another European language, principles of classification of the sciences, elements of bibliography including cataloguing, library administration and management, and general literary history.

Bramley argues, however, that at that time, not only was there no significant body of theoretical knowledge to be mastered, as “library administration, classification and cataloguing were virtually unexplored subjects” (1969, p.13), but also, inevitably, there were no courses of instruction on offer to potential students. It is also important to remember that most library assistants at that time would not have had any schooling beyond the age of fourteen, so that their formal education would have been limited to a basic level of reading, writing and arithmetic. The meagre level of the financial rewards of librarianship meant that the majority of those who did work in libraries “were badly educated and limited in their ambitions” (Bramley, 1969, p.14). Modifications and adjustments were made to the syllabus and the examination over the ensuing years, but the lack of candidates remained a significant problem. In the early twentieth century, the main focus of library training was technical proficiency and administrative competence. Practical skills strongly outweighed any interest in scholarly or intellectual achievement.

In 1909 the Library Association agreed to establish a register of members. Those people wishing to become a qualified librarian, therefore, were required to become a member of the Library Association and pass the examination to be awarded a diploma. University College London introduced its own diploma qualification in 1919. The library school council of University College comprised six members appointed by the university and six by the Library Association. There were 98 students in the initial intake. With qualifications offered by both the university and the association, the end result was a glut of professional librarians, chasing all too few jobs, with the inevitable consequence of people accepting positions with depressed salaries.

The next significant stage in the development of library education resulted from discussions held between the Library Association, the Carnegie United Kingdom Trust, the Ministry of Education and the principals of a number of colleges of further education. Soon after the end of World War II, seven new

schools of librarianship opened, offering a one-year program with a new syllabus covering cataloguing, classification, bibliography, assistance to readers, library organisation and the history of English literature. There were undoubtedly tensions between the teaching staff who sought to develop the students' understanding of concepts and principles, and the Library Association examiners who seemed preoccupied by the detail of technical skills. The schools actively sought to conduct their own internal examinations. By the early 1960s, a further group of library schools were established by technical colleges or colleges of commerce. In 1964 the Library Association introduced a new syllabus that was designed for a two year course that encompassed the theory, the skills and the techniques of librarianship. A radical move was made with the Library Association ceasing to play its role as the examining body, to allow the schools to examine their own students. The Library Association moved into the role of standards body, responding to the need to determine and maintain the standards of education for librarians.

In the United States, professional education and vocational training have long been part of the university scene. This made it far easier for a school of librarianship to be established at a university, so that in 1887 Melville Dewey founded the inaugural School of Library Economics at Columbia College, where he was Librarian. Bramley notes that "it was not Dewey's intention to devote overmuch time to the theoretical principles of librarianship... the course was essentially empirical in character. In addition to accession methods, and classification and cataloguing, other skills taught at the school included library handwriting and the use of the typewriter" (1969, pp.78-79). Historical discussion indicates that there was considerable resistance to the idea of the library school on the part of members of the American Library Association (founded in 1876) who believed that the apprenticeship approach to training within the library setting was more appropriate. It has been reported that the establishment of the first library school at a university was probably "more a happy accident than part of some grand design by Dewey" (Bramley, 1969, p.80). Nevertheless, this accident proved to be an inspiring precedent for other universities. By the early 20th century, library schools required college graduation as a prerequisite for entry into a library course¹. However, while education in the United States emphasised the actual course of instruction, rather than an examination, it was found that the quality of instruction varied widely across the different institutions. This led to the introduction of a system of accrediting courses to ensure specific standards of education could be met. The American Library Association (ALA), as the professional body, was keen to adopt the accreditation role. Then as now, the Masters programs tended to be the ones that were accredited, while the Bachelor courses were not.

While there was a close nexus between developments in library education and the professional association in countries like the United States and the United Kingdom, there were specific challenges in Australia. Bramley argues that "The establishment of a professional association is an essential step in the crystallisation of professional ideals and aims, and it was the inability of librarians in Australia to found a permanent professional organisation which for a long time retarded the development of a system of education for Australian librarians" (Bramley, 1969, p.109).

The challenges to the establishment of a professional association included the geographical and political realities of Australia with its federated system of states and territories covering an extensive land mass, as well as the difficulties in realising the true professional status of librarianship. Early attempts at tuition for library staff were introduced at the Public Library of New South Wales, by the Librarian, H.C.L. Anderson. Having attended the Second International Library Conference in London in 1897, Anderson aspired to see a process like the one introduced in the United Kingdom, with library training and an examination leading to the qualification of a diploma. He introduced classes at the Public Library, initially for staff of the Library, but later also for other interested students. Anderson also pioneered the use of the Dewey Decimal Classification scheme and published a guide to the cataloguing rules.

The Munn-Pitt report, published in 1934, presented the findings of a survey which aimed to examine the library situation in Australia. The report highlighted the pressing need for a single professional body that could encourage and support library education in Australia. The Carnegie Corporation, which had funded the study, provided further funding to John Metcalfe, then Deputy Principal Librarian with the New South

¹ The philanthropist Andrew Carnegie spent millions of dollars to establish libraries across the United States and beyond. This huge investment necessarily raised significant questions about the staffing of these institutions, resulting in considerable funding programs for library schools and scholarship opportunities for students.

Wales Public Library, for an international study tour to discuss issues with key members of the Library Association and the ALA. Metcalfe's subsequent report contained the proposal to establish a professional body that could play a significant role in improving the standards of library training.

The Australian Institute of Librarians (AIL) was founded in 1937, with the express goals of establishing professional unity to raise the standards and status of librarianship in Australia. Membership of the Institute was restricted to 'professional librarians'. The theme of the first conference held in 1938 was standards of librarianship and library training, culminating in the establishment of the Committee on Standards and Training to develop policies on education and training. The Board of Examination and Certification was convened in 1941, later becoming the Board of Education. Through a series of summer schools and semester programs, tuition was initially provided by three key employers, the Public Libraries of New South Wales and Victoria and the Commonwealth National Library "to prepare librarians to organize and provide access to the increasing volume and complexity of materials in government libraries" (Rochester, 1997, p.17). Reforms in the education sector led to the need for school libraries, with the Library School at the Public Library of New South Wales offering a teacher librarians' course. Rochester (1997) examines the debate between educators and practitioners about the need for a generalist or a specialist education for different library sectors, such as teacher librarians, children's librarians, special librarians and archivists, with the AIL strongly resisting challenges to its policy of a generalist curriculum.

Initial steps to formalising the education and training of librarians in Australia were delayed by the Second World War, but ultimately took place in 1944 when the AIL introduced a 'qualifying examination'. The Australian Institute of Librarians became the Library Association of Australia (LAA) in 1949, open to a broader spectrum of members, and with the acceptance of elective specialist papers in the examination. The examination was renamed the 'registration examination' and formed the main career pathway for librarians until 1980. The registration exam comprised nine papers, with three foundation topics, four core subjects and two elective subjects (Bramley, 1969). The library schools within the three major libraries continued to prepare students for the exam.

At the same time, the LAA actively encouraged the development of independent library courses. Rochester has argued that "formalized education in universities and colleges meant the increasing professionalization of librarianship" (1997, p.57). The first academic qualification was introduced by the University of New South Wales in 1960 as a Graduate Diploma of Librarianship, with the university both teaching and examining its students. The award was deemed equivalent to the association's registration exam. In 1963 the General Council of the LAA adopted the formal position that librarians should hold a postgraduate qualification. However, in 1965, the government introduced colleges of advanced education and institutes of technology as a new area of tertiary education. Library education fitted into this domain, with a number of courses emerging at the undergraduate level. Since 1968, the professional association has accepted both undergraduate and graduate qualifications as first award courses.

In 1970, in response to the changing dynamics of the workforce and a shortage of professional librarians, the first library technician course was introduced by Whitehorse Technical College in Box Hill, a suburb of Melbourne, with a curriculum that focused on vocational, practical skills as opposed to theoretical knowledge. The course covered "library procedures, display techniques, audiovisual techniques, business procedures, together with subjects such as sociology and staff supervision" (Rochester, 1997, p.52). The LAA moved to accept the course recognition criteria for library technician courses in 1977, subsequently introducing a new category of membership for library technicians in 1978.

Course recognition issues

In 2000 the International Federation of Library Associations and Institutions (IFLA) developed its *Guidelines for professional library/information educational programs - 2000* (IFLA, 2000). These international guidelines were developed to primarily address the quality of graduate and professional level LIS programs and are therefore very general in their scope, given their potential application across such a broad spectrum of jurisdictions. The *Guidelines* encompass the broader framework (context, mission, goals and objectives etc), curriculum, faculty and staff, students, administration and financial support, and

instructional resources and facilities. In their study of standards of LIS education across the world, Dalton and Levinson (2000) identified three models that aim to establish and maintain the standards for LIS education: governmental monitoring; formalized LIS accreditation/approval processes; individual course/departamental standards. The processes in place in the United Kingdom, through the Chartered Institute of Library and Information Professionals (CILIP), in the United States through the American Library Association (ALA), and in Australia, through ALIA, all represent the second model, that of formalized LIS accreditation/ approval purposes, although each is distinctive (Hallam, Partridge and McAllister, 2004).

At the local Australian level, ALIA acts as the standards body for the library and information profession. ALIA holds responsibility for the recognition of the university and TAFE courses which provide a library and information studies qualification. As noted, the course recognition process is directly linked to the categories of membership of the Association, specifically in terms of the Associate membership, which requires members to hold an ALIA-recognised LIS qualification at undergraduate or graduate levels, and the Library Technician membership, with members holding an ALIA-recognised library technician qualification. Other categories of ALIA membership include general Member, Student, Associate Fellow and Fellow, as well as Institutional Member.

Under the education standards process, ALIA currently recognises eighteen courses leading to library technician qualifications (ALIA, 2006a), the majority at the level of the Diploma in Library and Information Services. One university offers the qualification as an Associate Degree in Science (Library Technology) and another as a Bachelor of Science (Library Technology). At the professional level, ten universities offering ALIA-recognised LIS courses at undergraduate and graduate levels (ALIA, 2006b). This compares with 16 library schools in 1990. Five of the ten institutions offer courses at both undergraduate and postgraduate levels; one university limits its offering to an undergraduate program. Four universities offer only postgraduate programs (Graduate Diploma or Masters). One university offers only a Masters course, either as a general professional program (Master of Information Management or teacher librarianship (Master of Learning Innovation). Harvey has noted that “librarianship has perhaps always had an identity crisis in that it can be argued that it encompasses every field of endeavour” (2001). The multidisciplinary nature of librarianship today requires knowledge and skills that cut across information technology, management, psychology, education, communications, law and human services. A response to this situation can be found in the diverse intellectual emphases in different institutions in terms of faculty or discipline affiliation for the LIS school: courses can be found in schools or faculties of information technology, business, management, humanities and social sciences, media and information, or law, business and the arts.

It has been noted that, when international comparisons are made, there is an apparent imbalance between the total population and the number of institutions offering LIS courses in this country. Current figures are presented in Table 1.

Country	LIS schools	Population	Ratio LIS schools: population
Australia	10	20 million	1:2 million
Canada	7	33 million	1:4.7 million
United Kingdom	14	60 million	1:4.3 million
United States	50	295 million	1:5.9 million

Table 1: Comparative data for LIS schools (2005)

This imbalance means that not only are the Australian LIS schools competing for graduate enrolments within their own institutions, to encourage students to study towards the Graduate Diploma in Library and Information Studies rather than, say, a Graduate Diploma in Justice Studies, but also there are arguably too many institutions competing for the small number of students nationally who do in fact wish to pursue an LIS career. In contrast to the United States (usnews.com, 2006), no formal data is published in Australia to assist students assess the quality of LIS schools and their staff.

The relatively small numbers of LIS students at individual universities increases the vulnerability of the courses themselves. It is immensely challenging for an academic unit with perhaps four academic staff and less than 100 students to be influential and respected, when there are programs with thousands of students and hundreds of faculty staff, in the overall pool of tens of thousands of students enrolled at a university. In 2001 Schauder estimated that it took 31.43 full fee paying Australian students to cover the employment costs of one academic staff member. If the course requirements are eight academic subjects for a Graduate Diploma, with the worst case scenario of two academics running four units each, the minimum enrolment just to cover salaries is 62.86 full time students. Harvey (2001) and Bundy (2001) have proposed that Australian LIS courses should have a minimum of 6 academic staff dedicated to the LIS discipline. They have calculated that this model would require an annual full-time graduate student enrolment of 188.57 students, which given the multiplicity of library schools in Australia is unsustainable. What are the implications of students having, for example, only two teaching staff for the whole course? Surely it is critical to have a balance of staff with diverse professional experience to provide the opportunity for a range of views to be presented?

The ongoing process of reform in higher education in Australia has specific implications for LIS education. As universities strive to achieve greater efficiencies, the principles of economic rationalism inevitably apply. The bulk of the available funding will go towards the bigger and stronger (and more influential) disciplines where high numbers of students are guaranteed, such as medicine, law and business. Smaller niche disciplines like library and information science have found their autonomy and their identity threatened. Independent 'library schools' have progressively been subsumed into LIS departments, to ultimately become nothing more a discipline stream, or even just a single course, within a school within a faculty. In many cases this means that the LIS schools "have been forced into alliances with other disciplines, and it is unlikely that any school now teaches courses over which they have full control" (Genoni, 2005a). This in turn has implications within the framework of course recognition by ALIA, as local conditions in individual universities may make it increasingly difficult to compare 'apples with apples' in terms of the content of the curriculum.

In recognising courses at the professional level and the library technician level, ALIA draws on its core education policies: *ALIA's role in education of library and information professionals* (ALIA, 2005a), *Courses in library and information management* (ALIA, 2005b) and *Library and information sector: core knowledge, skills and attributes* (ALIA, 2005c). Seven key criteria are taken into consideration: course design, curriculum content, student assessment, staffing, resourcing, quality assurance mechanisms and infrastructure. As courses may be offered, of course, in diverse ways – eg face to face, online, or as a hybrid of both – ALIA seeks to ensure that learning outcomes will be consistent across the various delivery modes (ALIA, 2006c). Institutions planning to offer an LIS course are required to submit documentation to respond to the seven criteria and to be open to scrutiny through a site visit by a panel of LIS educators and industry practitioners. The courses are monitored through the submission of an Annual Course Return (ACR).

It is acknowledged that course recognition is a valid alternative to the onerous task of assessing individual qualifications in determining eligibility for membership of the Association. The process of course recognition further serves to reassure potential employers about the range and level of skills and knowledge of graduates entering the workforce (Nicholson and Tattersall, 2001). Concerns have been expressed about the "mediocrity of the course recognition process", with ALIA "preferring to recognise almost every course for the maximum period rather than use its teeth to effect real change and improvement" (Harvey, 2001), although at a later juncture Harvey has acknowledged that ALIA does indeed regularly scrutinize the courses for currency and relevance (2004). This is achieved through the ACR submitted by each university. In 2005, the ALIA Education Reference Group reviewed and revised the ACR process with the goal of gathering data that would be comparable across the different education institutions and would help develop a more cohesive picture of LIS education in Australia.

It could be argued that the two principal stakeholders in the immediate education process are the students, the academic staff. For ALIA-recognised courses, the ACR is a mechanism to capture information at the micro-level about the individual courses and at the macro-level about general trends in LIS education, from the dual perspectives of the student cohorts and staffing levels.

LIS student issues

It has been noted that to become a librarian, students may enrol in either undergraduate or graduate studies. While the postgraduate courses, such as a Graduate Diploma in Library Studies or a Master of Information Management, will have a clearly defined, discrete cohort of students, the undergraduate programs may have a common qualification such as a Bachelor of Arts or Bachelor of Information Technology, with students distributed across a number of different streams, only one of which may be the LIS stream. In some faculties, the enrolment in one specific subject, such as LIS Professional Practice, may be the only way to discretely identify the LIS student cohort. Unfortunately, this situation makes it very difficult to rely on any definitive statistics for student enrolments.

The data collected in the 2005 ALIA Annual Course Returns indicate that there are currently about 1550 students enrolled in the graduate programs and about 950 students enrolled in undergraduate courses. Figure 1 presents the enrolment trends over the ten-year period 1996-2005. Numbers of students enrolled in graduate courses peaked in 1997 (1917 students), then dropped noticeably over the period 1997-1999, with a low of 1373, which reflects the timeframe when full-fee paying courses were introduced for graduate courses in Australia. The 1997 spike highlights the students 'getting in fast' before the graduate fees were introduced. As many students study part-time, the corresponding drop in graduating full-time students occurs in 2000 and in part-time students in 2002. However, the past few years indicate greater stability in numbers of students and graduates.

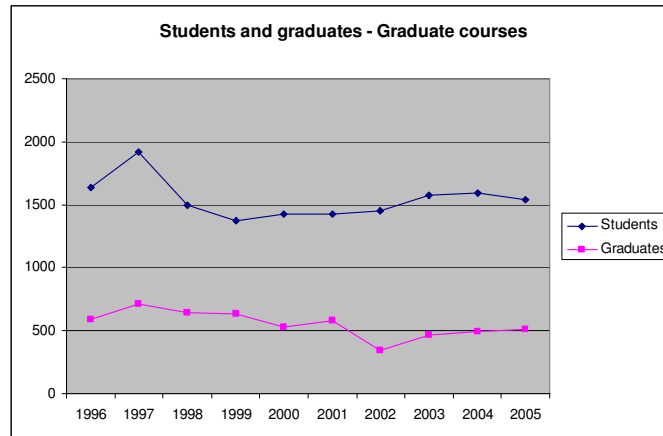


Figure 1: Number of students and graduates – LIS graduate courses, 1996-2005

The figures for undergraduate students (see Figure 2) show a drop of almost 54% from the 1997 high of 1745 students to the 2005 figure of 811. A number of undergraduate courses have closed over the past few years, which can be directly attributed to the impact of the higher education reforms, which are discussed later in this chapter. In contrast, the number of graduates completing the undergraduate courses has remained stable, highlighting the trend for a significant number of undergraduate students to drop out of courses before graduation, an issue which was raised in the Australian Government's Higher Education Review (DEST, 2005).

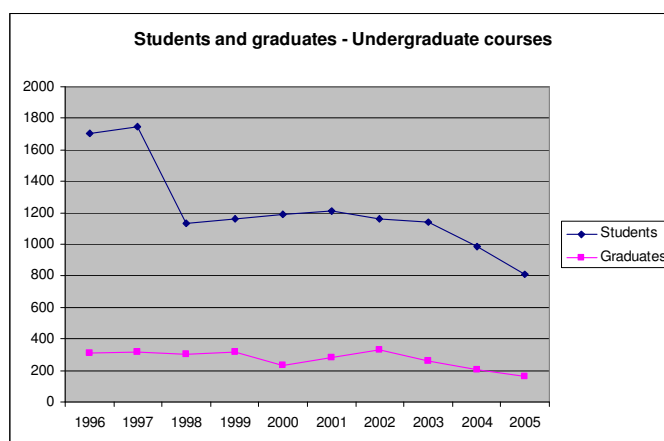


Figure 2: Number of students and graduates – LIS undergraduate courses, 1996-2005

The data collected in the ACRs indicate that, on average, about 30% of graduate students complete their course in any year, compared with about 20% of undergraduate students. While these figures naturally reflect the respective duration of the courses, there is also a higher drop out rate for undergraduate courses, resulting in a lower number of graduates overall in this category. On average, around 700 new graduates theoretically enter the workforce each year, although a significant proportion may already be employed in the LIS sector.

Ironically, the market for LIS qualifications may be moving towards postgraduate entry model, as was first proposed by the Library Association of Australia in the early 1960s. IFLA has stressed the importance of an undergraduate degree as the foundation to the graduate qualification: “Students should acquire a broad general education (topics from other disciplines) as a significant preparatory component of the total education program for the library/information professional” (2000). The overall trends in student numbers in Australia indicate that proportionally fewer students are interested in the undergraduate qualification, dropping from 47% in 1997 to 34% in 2005. In addition, some universities now offer a coursework Masters as the standard professional qualification, moving away from the Graduate Diploma as the entry-level qualification, referred to as ‘credential creep’ (Macauley, 2004). Genoni indicates that this may be the beginning of a trend towards both students and employers expecting a Masters degree as the standard entry level: “There are sound pedagogic reasons for this being the case. There have long been questions as to how well a 12 month course prepares graduates for the workplace. This issue is becoming more critical as the expansion of required skills and knowledge demands constant additions to the curriculum” (2005a).

Myburgh (2003) has commented on the problems of offering LIS programs at the undergraduate level, with falling enrolments and the perceived poor quality of students, resulting in a number of institutions closing down their bachelor courses. In the United States, masters courses are the only accredited programs. The Graduate Diploma as we know it survives only in Australia and South Africa, with an ever increasing number of universities, internationally, offering masters courses. Myburgh highlights the underlying pedagogic reasons: “A post-bachelor Master’s degree should become the basic pre-professional training. The Graduate Diploma is not enough. It is not possible to meet the needs of the profession within this framework. We don’t need more superficialists, who train within a one-year time frame, and have a smattering of bits and pieces of knowledge across a discipline area that is too wide to capture within one year” (2003).

Harvey and Higgins, on the other hand, highlight the problems of industry recognition the higher degree: “Professionally-recognised bachelor’s qualifications... are accorded the same professional status as graduate diplomas or masters degrees. Holding a masters qualification in Australia is not usually linked to higher levels of pay; pay scales are theoretically the same for all first professional qualifications. There is, therefore, no financial incentive to pay the extra costs incurred in studying at the masters level” (2003, p.151). Student fees are a critical issue in the context of Australian university education, where funding,

rather than pedagogic principles, tend to drive many of the educational decisions. In 2005, Dr Brendan Nelson, Minister of Education, Science and Training and responsible for recent higher education reforms, stated that 75% of undergraduate study costs are funded by government, with the student responsible for 25% of the costs, either payable upfront, or deferred as a student loan (Nelson, 2005). Graduate programs, however, are full-fee paying, so with no government subsidy, with fees ranging for Graduate Diploma programs from about \$7 500 to \$12 000, depending on the institution. Masters programs range from \$12 000 to \$24 000. Student loan schemes are available for graduate students.

This financial situation notwithstanding, many LIS students enter the graduate course as part of their strategies for career change. The student cohort in LIS programs is an interesting one, with a wide diversity in academic background, employment history, personal interests and life experiences, all of which adds richness to the profession they join. Myburgh stresses that, in her experience, “Undergraduates (if they have come directly from school) typically do not have the life experience which is necessary to understand this complex and sophisticated blend of art and science that forms the backbone of the profession. It is only after more experience of human nature, individually and within organisations, that some appreciation of the role of information and knowledge (not reading or documents) can be fully understood”. IFLA recommends that “students should acquire a broad general education (topics from other disciplines) as a significant preparatory component of the total education program for the library/information professional” (2000), thereby encouraging the postgraduate avenue for LIS education. This is particularly important for academic libraries: Dalton and Levinson make reference to anecdotal evidence to indicate that “for work in the academic [library] sector, employers prefer to recruit LIS professionals with a Master’s level qualification in a separate subject, in addition to the professional LIS qualification”. It can also be argued, however, that the undergraduate degrees provide a career pathway for aspiring library technicians who wish to upgrade from a vocational diploma to a professional qualification (Harvey & Higgins, 2003).

While the universities are required to ask students to complete a Graduate Destination Survey, the number of returns is disappointing, resulting in unreliable data. Anecdotally, it appears that graduates often obtain part-time work in the first instance – either while still studying, or after completing the course – and secure full-time work within 6-12 months. In recent months, however, students in South East Queensland have reported that most jobs on offer are in fact for full-time work, and they would actually prefer part-time employment. Graduates who are working in an LIS environment while studying are generally offered promotion upon completion of their course, or they are successful in applying for a higher level position with another employer.

Within the vocational education and training (VET) sector, the data collected in the ALIA ACRs indicate that number of students enrolling in Library Technician courses has also dropped significantly over the past decade, from 3171 in 1996 to 2028 in 2005, down around 36%. There has been a 26% reduction in the number of qualified diplomates, from 536 to 397 (see Figure 3).

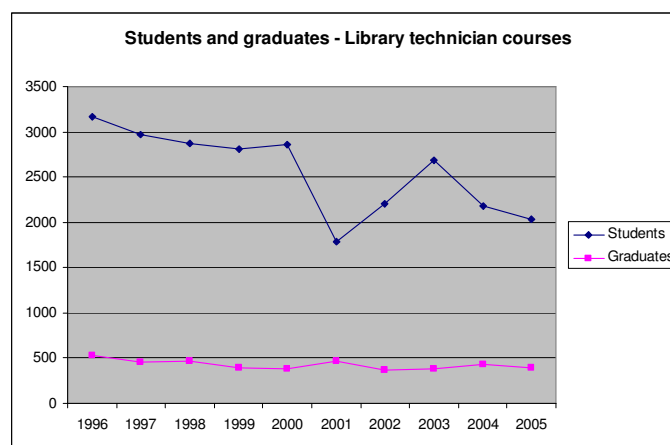


Figure 3: Number of students and graduates – Library Technician courses, 1996-2005

Significant changes were made in the area of education for library technicians and library assistants in 1999, with the development of the new national training package, the Museums and Library/Information Services Training Package². The agency responsible for the formulation of the Museums and Library/Information Services package was CREATE (Cultural Research Education and Training Enterprises Australia), with considerable industry consultation. In 2004, advice on training for the cultural sector was transferred to Innovation and Business Skills Australia (IBSA) as the relevant industry skills council. The training package currently comprises three specific components: the Competency Standards, ie units of competency which reflect discrete workplace outcomes; the Assessment Guidelines, which describe the industry requirements for assessment; and the Qualifications Framework, which details how the units of competency are packaged into nationally recognised qualifications (IBSA, 2005). The Australian Qualifications Framework (AQF) qualifications for the cultural sector include Certificates II-IV, Diploma and Advanced Diploma. There is currently some discussion in the VET sector about the feasibility of some TAFE institutions introducing a Vocational Graduate Diploma in Library and Information Services. These days, some library technicians choose to progress their careers by undertaking a university course in LIS studies, while, on the other hand, it has also been noted that Library Technician courses also attract a number of students who already have tertiary qualifications (Carroll, 2005), reflecting the complexity of the qualifications within the LIS sector.

The original goals of education for library technicians was to offer a complementary, but distinct, career path to that of librarians. It was not envisaged to be a pre-professional program. Carroll (2002) has noted, however, that the structure of the national qualifications framework and the competency standards now sees the educational outcomes at the higher levels of vocational education dovetailing with university learning outcomes. This situation presents employer with specific challenges when recruiting. It appears that not all employers acknowledge the professional status of new graduates, meaning that too many new librarians find themselves “functioning in that grey area inhabited by both the professional and para-professional” (Carroll, 2002). Employers do need to consider how to best accommodate this convergence of qualifications, so that the profession continues to attract people with strong analytical, evaluative and critical thinking skills and the potential to become future leaders.

It will be important to watch future student enrolment patterns. The Australian employment market is predicted to decline significantly in the next decade, with large numbers of Baby Boomer workers exiting from the workforce, and fewer young people entering paid employment. It is anticipated that there will be immense competition for capable and talented workers: will the LIS sector be in a position to attract the brightest and best candidates to join its professional ranks, and what strategies can be used to ensure a positive future for the profession?

LIS educator issues

It has been frequently stated that practitioners and educators inhabit two different worlds, with insufficient interplay and interaction between them. “Many librarians have little firsthand experience with library education after they graduate. They don’t go back to the schools for alumni functions, and often their knowledge of what is happening in the schools comes to them second- or thirdhand” (Moran, 2001, p.54). Library educators may equally well be totally out of touch with current industry practice. The gulf between LIS education and LIS practice is specifically highlighted in courses in the United States which fall into the discipline area of information science, known as i-schools where the focus is often “information-oriented to the exclusion of libraries” (Seavey, 2005, p.54), as well as in situations where significant tensions exist between the demands on academic staff, on the one hand to secure funded research projects, and on the other hand to provide education for the profession. There are concerns that the influx of lecturers from disciplines other than library science, who may have never worked in a library, is having a negative impact on the quality of teaching within the LIS discipline and, by extension, on the quality of the graduates. Anxious comments suggest that with the current cohort of doctoral students coming through the i-schools, there will be no new generation of LIS educators who have the

² Because of this overarching cultural focus, specific VET sector statistical information covers student numbers enrolled in the complete training package, indicating around 3000 library and information services students each year (NCVER, 2004, p.22).

required knowledge and skills to develop library professionals. Seavey notes that “considering a fairly simple demand model, the situation turns pretty grim: potential faculty members who actually understand the institution of the library are fairly few and far between” (2005, p.55). Dillon and Norris counter these views by presenting data that “cast serious doubts on the claim that there is a lack of research being conducted in LIS library schools” (2005, p.285) with the next generation of LIS faculty clearly recognising that library-related research topics are central to their professional expertise.

Nevertheless, here in Australia, there is clear evidence that there has been a progressive decline in numbers of academic staff members in the LIS discipline (see Figure 4). Over the period 1996-2005, the number of staff decreased literally by 50%, from 130 to 64.

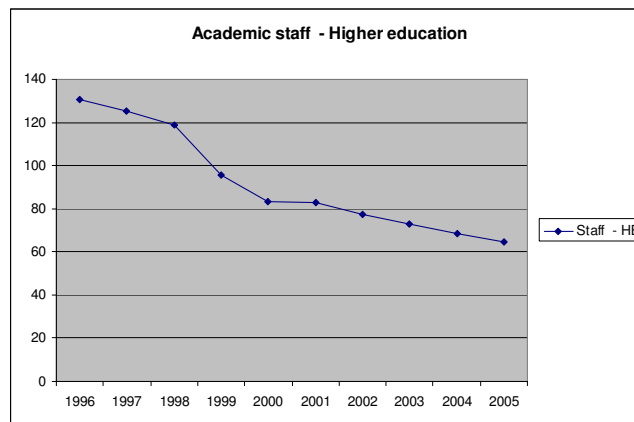


Figure 4: Number of academic staff – LIS higher education, 1996-2005

Over the same period, the VET sector has experienced a similar decline in staff, dropping 43% from 79.2 FTE to 45 (see Figure 5).

Not only are the numbers dropping, but the educators themselves are ‘greying’. “Library education in Australia expanded rapidly in the late 1970s and 1980s, and a number of those who joined the teaching departments in their early period of growth still remain” (Genoni, 2005b). This situation raises serious issues in terms of the currency and relevance of the curriculum in such a dynamic field as LIS. It is essential that the curriculum itself is dynamic, providing graduates with the knowledge and skills they will need as soon as they join the workforce. Libraries and information centres are very different places in 2006, compared with twenty, or even ten years ago. Staff development for existing academic staff is therefore crucial.

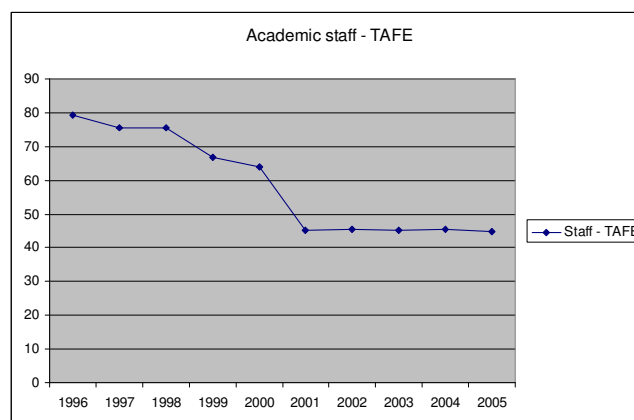


Figure 5: Number of academic staff – TAFE, 1995-2005

At the same time, there is anecdotal evidence that the LIS departments in Australia are finding it very difficult to attract new staff. In the light of higher education reforms, there are growing expectations that a PhD is one of the essential selection criteria for a career as an academic. Durrance has reported that in the United States in the 1990s, more than 90% of LIS faculty held a PhD (2003). This situation contrasts starkly with the LIS sector in Australia, where the PhD remains a scarce commodity. Macauley provides some interesting insights into the role of the doctorate amongst LIS professionals, reporting that in 2002-2003, only 1.3% of the personal membership of ALIA held the title 'Dr' (Macauley, 2004). He argues, however, that 'credential creep' should result in a growing number of doctoral graduates. Nevertheless, it is pertinent to ask questions of the practitioners: "How many practicing librarians recognize there is a problem [in recruiting librarians into the faculty ranks]? How many have thought about getting a doctorate? How many administrators have encouraged some bright young librarian to venture into a doctoral program? How many administrators provide time off for working librarians to do homework, attend class, and do all the other things necessary to pursue and advanced degree?" (Seavey, 2005, p.56).

At this point in time it would appear that there are few incentives to become an educator. It is rare for library and information professionals to be willing to invest several years of their life to obtain a higher degree, when the remuneration they will be finally be offered as a lecturer, with little or no teaching experience, is going to be substantially less than the remuneration they would receive by remaining in the workforce and potentially winning promotion to the senior ranks as an industry practitioner (Genoni, 2005b). Within the academic institutions, the funding to employ casual academic staff, to help individuals gain experience in the classroom, is also becoming harder to acquire. Inevitably, without effective succession planning, LIS departments become increasingly vulnerable.

The push for educators to 'publish or perish' further adds to the inherent tensions, especially when the high impact academic journals are not the regular reading material for practitioners. Equally well, however, there has been some degree of criticism about the lack of professional reading undertaken by practitioners – or at least that "researchers and practitioners do not read each others' literature" (Haddow and Klobas, 2004). This means that "as academics relentlessly push the profession towards theory and abstraction, practitioners pull with equal might toward day-to-day relevance" (Mulvaney & O'Connor, 2006, p.38). The tensions between research and practice are discussed in more detail later in the chapter, following an exploration of the curriculum issues, where, nonetheless, specific tensions between educators and practitioners are apparent.

Curriculum issues

In the United States, Michael Gorman has made education for librarianship one of the central themes of his presidency of the ALA for 2005-2006, with considerable professional discussion about the lack of a core curriculum for the discipline as offered by the various library schools, and a lack of consensus and consistency about the breadth and depth of LIS syllabi (Mulvaney & O'Connor, 2006). As LIS educators, Brine and Feather have noted that "so far as the academic curriculum is concerned, there is probably general agreement about the broad scope of knowledge and understanding which the new entrant to the profession needs to acquire. There is rather less clarity and consensus about the skills which are needed if s/he is to function effectively" (2002, p.253).

This view is supported by the literature reporting on the situation in all corners of the world (Middleton, 2003; Myburgh, 2003; Rehman, 2002; Koehler, 2003; Raju, 2003; Maceviciute, 2002; Irwin, 2002; Tedd, 2003). LIS educators propose a wide range of competencies, skills, knowledge areas, topics or modules for their courses. Terms include social informatics, knowledge management, information management, information economics, information resources development, IT applications, information systems, networking, Internet, virtual library, management of information organisations, human resource development, information organisation, information retrieval, collection and access management, professional ethics and so on. The role of skills in information technology comes to the fore in the analysis.

The taxonomy of discipline knowledge was articulated by Dressel and Marcus (1982). In this taxonomy, discipline knowledge can be characterised as having the following components:

- Substantive knowledge: the concepts, facts, and types of problems dealt with by a discipline
- Language and symbols: the terms and representation systems (linguistic, mathematical or symbolic) used to communicate in the discipline.
- Structure: the organisation of knowledge within a discipline, including methods of thinking and problem solving; methods of collecting, analysing and interpreting information; and conventional methods of communicating
- Values: the beliefs that guide our decisions about which problems to solve, the methods to choose and how evidence is evaluated
- Relationships to other disciplines: the principles that determine how a discipline is related to other disciplines, largely determined by the other five components.

In discussing the curriculum developments in Dutch LIS schools, Roggema-van Heusden (2004) refers to 'specific expertise' which is defined as the "necessary knowledge and experience and insight relevant to the invariable aspects of the problem" (p. 99). Many synonyms can be used to refer to this core set of skills. Such synonyms include 'subject-specific knowledge', 'content knowledge' or 'subject matter expertise'.

Beyond this discipline-specific knowledge, however, there has been a growing interest within the higher education sector in strategies that will help students develop life skills that can allow them to "function across different cognitive domains or subject areas and across a variety of social, and in particular employment situations" (Bridges, 1993, p. 45). Skills such as problem solving, critical thinking, effective communication, teamwork and ethical thinking are all examples of the life skills in question. Together these life skills form the core set of workplace skills and abilities desirable in graduating students and new employees. They complement the discipline specific skills and professional knowledge acquired by students through their university study. Within the literature many synonyms have been used to refer to this core set of skills. Such synonyms include 'transferable skills' (Atlay & Harris, 2000), 'key competences' (Mayer, 1992) 'generic skills' (Oliver & McLoughlin, 2001) and 'graduate attributes' (Down, Martin, Hager & Bricknell, 1999).

Extrapolating from the work by Watson and Crick, Partridge and Hallam (2004) draw on the metaphor of DNA to describe the two aspects of generic capabilities and discipline knowledge. Like the strands within the genetic concept of the double helix, the two ribbons of professional knowledge and personal attributes are intertwined and complementary. Together the two ribbons symbolise the "unique patterns of DNA" (Watson, 1981) that determine the specific characteristics and qualities of the library and information professional.

The diverse approaches to LIS education standards has been mentioned. In terms of curriculum in the United States, the ALA accredits LIS courses using the *Standards for Accreditation of Master's Programs in Library and Information Studies 1992*. In these standards, the criteria for the curriculum are highly generalised, but encompass the "evolving body of knowledge that reflects the findings of basic and applied research from relevant fields" (ALA, 1992), which is a specific concern to Gorman (2004). Critics of Gorman's views argue that to define a core curriculum for the purposes of the accreditation of courses would be both prescriptive and stifling, especially in such a dynamic field as library and information science.

In the United Kingdom, the merger of the Library Association (LA) with the Institute of Information Scientists (IIS) to form the Chartered Institute of Library and Information Professionals (CILIP) in 2002, prompted the development of a common view of the Body of Professional Knowledge (BPK) for the new association. The BPK "establishes the unique knowledge, which distinguishes library and information professionals from professionals within other domains... and sets out sets out the broad framework of areas of knowledge and practice that characterise information and library work. It is designed to be flexible and adaptable, as the areas will evolve and develop over time to accommodate changing needs" (CILIP, 2005, p.1). CILIP emphasises that the BPK is not presented as a core curriculum, nor does it seek indicate the

level of knowledge or skill that should be achieved by individual practitioners seeking recognition and/or qualifications.

ALIA has also adopted a more conceptual approach in terms of articulating the core knowledge, skills and attributes (2005c). The key characteristics of the LIS workforce are presented as:

- Promoting and defending the core values of the profession
- Understanding and responding to people's information and learning needs
- Managing the storage, organisation, access, retrieval, dissemination, preservation and use of information
- Developing, delivering and evaluating information facilities, services, sources and products
- Envisioning and planning future directions for the library and information sector
- Advancing library and information science and its application to information services. (ALIA, 2005c).

The core knowledge and skills encompass the knowledge of the broad context of the information environment, an understanding of information seeking, information infrastructure, information organisation, information access, information services, sources and products, information literacy education and the generation of knowledge, to foster a culture of research and evidence based practice (ALIA, 2005c). In addition, value is placed on the generic skills and attributes that are an essential dimension of an effective profession: communication skills, ethical standards and social responsibility, critical, reflective and creative thinking, problem-solving, skills in the areas of ICT application, project management and business acumen, team relationship skills and self-management. The ALIA statement notes the spread of conceptual and evaluative thinking required by librarians and the practical skills demonstrated by library technicians, as well as acknowledging that the level to which individuals have requisite knowledge, skills and attributes will depend on their formal qualifications, work experience, professional development, and the role/s they perform. ALIA concludes that "as all areas of library and information practice will continue to evolve and develop over time, the overall framework of knowledge, skills and attributes needs to be able to encompass the changing nature of the discipline to ensure a flexible, adaptable and innovative profession" (ALIA, 2005c). This provides a descriptive, rather than prescriptive framework for the curriculum.

Wagner has indicated that the future direction of LIS education will be determined by examining "what skills will be required by library information professionals to enable them to adapt to new and changing demands in society" (2000, p.128). While this appears a simple statement, one major issue associated with the curriculum of LIS courses undoubtedly hinges on the vexing question of what the 'information profession' is all about. One new graduate has commented that it is difficult to get an understanding of the profession until you are actually working in the field (O'Connor, 2001, p.1). There is plenty of inconclusive debate about job titles and work descriptions and about what distinguishes workers in the LIS sector from other areas of practices in the information environment (Nicholson and Tattersall, 2001, p.2). This challenges us to ask how can we actually develop a relevant curriculum if we don't know what needs to be included in the course? Specifically, how can we develop a relevant curriculum for both traditional and emerging employment paths?

Part of the problem results from the enormous diversity of employment opportunities across a wide range of information environments, from the broad levels of academic libraries, public libraries, State and National libraries, to the narrower levels of special libraries and information centres, such as law libraries, health and medical information centres, music libraries etc. Opportunities also exist beyond this more traditional library context, with career avenues within knowledge management, internet and intranet development etc. Each area of specialisation would ideally like their own tailored education program for potential employees. Tenopir (2002) discusses the inherent challenges:

Schools of library and information science are working on keeping up with technology, planning recruitment, and revising curricula, but I wonder how LIS programs can continue to be all things for all people. How can programs provide sufficient courses and educational opportunities for those who want to become competitive intelligence specialists, children's librarians, electronic publishers, and academic reference librarians? In particular, how can they do all this while

maintaining or growing doctoral and undergraduate programs and bringing in new recruits for master's degrees programs?

Stoffle and Leeder present a valid argument when they state that:

While the needs of the profession should play a role in determining the curriculum, allowing dissatisfied practitioners to dictate the requirements of LIS programs will undoubtedly lead to disaster. The goal of today's LIS programs is not to provide specialized training to prepare students for specific positions, but to give students a broad education in the field that will serve as a foundation for any related career path they may choose. (2005, p.316-7).

In discussing the issue of a broad-based course of study for students who wish to become law librarians, Middleton and Hallam indicate that "LIS educators, needing to maintain meaningful and relevant curricula for an uncertain future, have avoided provision of training for precise vocational skills. Instead they aim for flexibility and adaptability so that students develop a thorough understanding of the principles that may apply in a variety of situations, many of which are unanticipated" (2001, p.183).

Beyond this, it is important to understand how the curriculum can be utilised as a vehicle for students to acquire "the conceptual structures and thinking processes of a particular discipline" (Toohey, 1999, p.55). Core qualities of effective information professionals include the ability to naturally focus on the user as an integral element of information transfer and use, and the ability to critically evaluate information products and services. A further facet to consider is the underlying premise that the LIS profession is a caring and sharing field of endeavour, with a high level of personal and professional interaction based on networking and collaborative activities. Ideally, the curriculum needs to also include these philosophical, and possibly affective, concepts to achieve the desired professional mindset. In addition, it should be noted that some elements in the course reflect the socially critical approach to curriculum. Librarianship, particularly the area of public librarianship, strongly espouses the values of social justice, equity of access to information and intellectual freedom. LIS courses need to address these issues to consider what knowledge and skills are particularly valuable the role of library and information professionals within society as a whole.

LIS research and LIS practice issues

Building on the discussion on curriculum issues for the professional domain, there are inevitable tensions between the dimensions of theory and practice in the academic arena, and indeed Grogan (1983) raised this as a persistent issue in the education of librarians. While, in principle, research and practice should enjoy a mutually beneficial relationship to create "a strong theoretical framework within which a practitioner community can develop" (Haddow & Klobas, 2004), it has been argued that practitioners have long felt that educators were out of touch with practice. This concern has resounded in the field ever since the first qualifications were discussed (Steig, 1992, cited in Dillon & Norris, 2005, p.291). Rothstein's "Anthology of Abuse" (1985) documents "the criticism LIS programs endured over the course of ninety-four years between 1887 and 1981 (Stoffle & Leeder, 2005, p.313). Today, with LIS studies increasingly offered as a postgraduate qualification, there are clear expectations that students should acquire a high level of theoretical knowledge, yet there is also an overt demand for practical skills which can be applied on day one in the workplace. For practitioners, cataloguing and online searching are two areas where these tensions consistently emerge: "I cannot understand how so many (information profession graduates) have so little practical knowledge of how to search for information in an online world. They may have some theoretical knowledge but, in my experience, they frequently don't know how to implement it" (Swan, 2000, p.4).

The dichotomy between mental and manual, theoretical and practical, mind and body has long been a central concept in western thinking, reflecting the philosophies of Aristotle and Plato through to Descartes. Gibbons et al (1994) describe two modes of knowledge: Mode 1 and Mode 2. Traditional discipline knowledge "as taught in ivory towers" is referred to as Mode 1 knowledge, while Mode 2 encapsulates socially distributed knowledge, "as produced and applied in the workplace". The problem facing educators teaching professional courses is how to achieve the desired balance between the two

modes of knowledge, particularly to develop the potential to explore and create Mode 2 knowledge, without the educational levels dropping to the level of competency-based training, which offers the practical dimension of training for library technicians and library assistants.

Theoretical knowledge encompasses beliefs, facts and ideas, which can then be applied by the practitioner to solve professional problems. The value of conceptual education was recognised by White: “The emphasis must be on education, the understanding of issues and concepts and the development of skills and tools with which to deal with specific problems that arise in libraries and that nobody can fully predict and anticipate” (1989, p.4). At the same time, it is acknowledged that in the workplace, graduates will indeed need to gain practical skills to perform the operational tasks that are part and parcel of the positions they hold. The issue of professional learning and how a professional evolves has been considered by Boshuizen, Bromme and Gruber (2004). Their work provides an interesting insight into the broader areas of professional development and preparation. They propose that a professional, regardless of their discipline, progresses from the status of novice to that of expert by “a process of continually transforming the repertoire of knowledge and skills that make up expertise”. In short, they suggest that lifelong learning is the key to a professional become an expert in their own field. According to Boshuizen et al, a professional must develop both academic knowledge and professional knowledge, with academic knowledge imparted via formal education in a university and subsequently transformed into professional knowledge by learning in the workplace.

Garrod and Sidgreaves note that LIS schools “remain challenged in initial professional training by the need to prepare graduates for a wide variety of information service outlets” (1998). It must be stressed that entry-level qualifications are the starting point, not the end point: “A first professional course should be acknowledged to be simply an important first step in the career, supplemented by continuing education as an essential ongoing process to gain the knowledge and skills needed to support a successful career” (Middleton and Hallam, 2001, p.193). While the universities can adopt a proactive stance to incorporate new areas of knowledge and skills into the LIS curriculum, new developments in practice require existing staff to grow and develop. It has become imperative for practitioners to keep their skills and knowledge current and relevant. In Australia, ALIA launched its Professional Development (PD) program in 2000 to encourage members to face the challenges of the future: “The dynamic environment of the library and information sector dictates the need for library and information professionals to remain flexible and adaptable to change... Lifelong learning extends and develops the knowledge, skills and competencies of practitioners. It also enables them to prepare for their work more effectively, to broaden their careers and to undertake new tasks” (ALIA, 2001). Significantly, the distinction is made in the PD program between the necessity of developing both LIS specific areas (eg information resources, resources acquisition and management) and generic areas (teamwork, effective communication, critical and evaluative thinking).

Jennerich describes the importance of career-long learning using the metaphor of caring for fine timber: “The relationship between LIS education and staff development is akin to the care of fine woods. A graduate comes to us with one coat of high quality varnish. It takes years of development, training and personal motivation to add the layers that create a luster of excellence” (Jennerich, 2006).

Conclusion

Undeniably, as it has done since its introduction, LIS education continues to face immense challenges. Perhaps some of the grounds for concern and anxiety reside in the inconstant environment we now live and work in, with the “dynamic of perpetual change” (Ray, 2001, p.250). It has been argued that the exponential growth of digital information is causing an existential dilemma for many library and information professionals: “If books and libraries embody modernist values such as linearity, order, hierarchy and structure, the Web page and the Internet reflect postmodern values: nonlinearity, equality of value and randomness”(Ray, 2001, p.251). If this is the case, then LIS educators face the challenge of determining, in the educational context, how to best accommodate these new values, without forfeiting the profession’s traditional core values. The discipline is in transition, amongst sweeping cultural, social, economic and technological changes. Metaphors of seismic activity abound: “The digital earthquake [has] changed the information landscape” (Durrance, 2003, p.9), while waves of blogs and wikis warn that we will drown in the “tsunami of information” (see also Bruck, 2002). A key strategy for the future

will be to work collaboratively to make the most of the opportunities that do emerge. “While it is still possible that the Internet revolution will swamp LIS/IS education, it appears to me that recent efforts by thought leaders from a variety of disciplines, including LIS, are likely to succeed in bringing an interdisciplinary convergence that will result in forging a new discipline that will more effectively develop and harness technologies, systems and practices with the aim of bringing the benefits of convergence to society” (Durrance, 2003, p.10).

In the 21st century, libraries and information agencies require staff with innovative ideas and vision to create and sustain valued, effective services to users, and to contribute to the success of the parent organisation. Career-long learning is therefore integral to professional success and individual professional development needs to be supported through a combination of education, personal achievement and work-based opportunities. The process of developing these innovative, visionary and successful library and information professionals is not the sole responsibility of the LIS educator, but must be viewed as a career-long learning process that involves the individual, universities, training providers, employers and professional associations: “Library schools don’t operate in a vacuum... LIS education needs a healthy infrastructure involving faculty, students, alumni, and practitioners” (Ling Hwey Jeng, 2005, p.3). In Australia, ALIA seeks to foster the collaboration of the diverse stakeholders, by working with the universities and TAFE colleges to ensure the quality of the LIS programs recognised by the association (ALIA, 2005a; ALIA, 2005b; ALIA, 2005c; ALIA, 2006c), by encouraging and supporting practitioners to participate in the professional development scheme (ALIA, 2005d) and by encouraging employers to work with the library educators in the provision of formal LIS programs and to support professional development and workplace learning for their staff (ALIA, 2006d). LIS education is a critical issue for the professional association, but beyond this it is also a critical issue for the profession in its entirety. It requires concern, cooperation and collaboration – today, tomorrow and into the future.

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