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Library workforce planning in Australia: A focus on learning, strengthening and moving the profession forward

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Abstract

Along with many other countries, the library and information services (LIS) sector in Australia has become increasingly aware that people are indeed the key drivers in the profession and that a strong future will depend on ensuring that recruitment, retention and professional development issues are clearly understood and managed. The paper discusses some of the research initiatives currently being undertaken in Australia which aim to develop a better understanding of the LIS workforce. The research activities are twofold: firstly to investigate into the current LIS workforce at the individual level, and secondly to review and analyse workforce issues and practices at the institutional level. The research is informed by preliminary studies into workforce planning in Australia, which indicate that the LIS sector is likely to face a number of challenges over the coming decade. These preliminary studies underscore the close relationship between LIS education, recruitment and retention practices, and career long learning through staff training and development. The paper itself presents some of the initial findings from the studies and raises a number of questions that need to be addressed by the profession if it is to effectively meet the challenges presented by the dynamic information and knowledge environment in which it operates. The research project is a collaborative venture supported by Queensland University of Technology, CAVAL Collaborative Solutions and the Australian Library and Information Association.

Library workforce planning in Australia: A focus on learning, strengthening and moving the profession forward

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Introduction

Along with many other developed societies, Australians are living longer and having fewer babies. Through its population projections, the Australian Bureau of Statistics (ABS) has drawn attention to the gradual ageing of Australia's population which is the result of sustained low levels of fertility combined with increasing life expectancy at birth. In 2004, the median age of Australia's population was 36.4 years, but this is projected to increase to between 39.9 years and 41.7 years by 2021 and to between 44.6 years and 48.2 years in 2051. This means that the age composition of Australia's population will also change considerably: by 2051 there will be a much greater proportion of people aged 65 years and over, and a lower proportion of people aged under 15 years. 2004 figures indicated that 13% of the Australian population was aged 65 years and over, but this is projected to double to between 26% and 28% by 2051 and to increase further to between 27% and 31% by 2101. Meanwhile, the proportion of people aged under 15 years is likely to decrease from 20% in 2004 to between 13% and 16% in 2051, remaining around that level up to 2101 (ABS, 2006a).

The changes anticipated in Australia's population will inevitably have considerable social and economic impact, including pressure on the labour force. Already, the Australian news media carry regular reports about the anticipated shortage of skilled labour. In Queensland, where the health services are seen to have reached crisis point, the keen public focus on the shortage of doctors and nursing staff has prompted the State government to respond with the offer of considerable salary increases and major recruitment drives overseas. Attention has been paid to an emerging shortage of skilled labour within the trades. After a number of years when interest in apprenticeships had waned, political parties are actively pushing policies that will encourage young people to return to vocational education. There are even reports about the imminent shortage of unskilled labour, especially in the agricultural sector. With the current resources boom enabling Australian mining companies to offer very high wages, there is a drift away from some of the more traditional educational and employment opportunities. Labour market information issued by the ABS indicates that the national unemployment rate has dropped below 5% (ABS, 2006b) for the first time in thirty years, and employers across all areas of business and industry are reporting difficulties in hiring the 'right' people.

Professions Australia (2005) has initiated research into the implications of demographic change, which they believe "will develop into the challenge of replacing skilled older workers from a much smaller pool of younger workers". The Federal government itself is aware of these growing pressures: "A tighter labour market is in prospect, a factor of wider demographic shifts and the ageing of the population. In the Australian Public Service (APS) we are already experiencing shortages for some skills and will face increasing competition for others. We need to be well positioned to succeed in the 'war for talent'" (APSC, 2005). A whole raft of professions and industry sectors are loudly expressing anxiety about how they

will meet their labour needs over the next five to ten years, for example the mining industry, consulting engineers, quantity surveyors, railway engineers, health professionals (Professions Australia, 2005), urban planners and other aspects of local government, specifically in regional and rural areas (NSW, 2006). Federal, State and local governments are all examining the issues in some depth. The issues are undeniably complex, with the interplay between social and economic factors, education and training, and migration policy. Professions Australia has proposed that meaningful information should be obtained by “mapping Australia’s longer term requirements for professional skills... to develop a comprehensive overview of the professional resource issues, challenges and opportunities facing Australia over the next 5-10 years... supplemented by qualitative analysis of sector-specific and cross-sector professional workforce issues” (Professions Australia, 2005, p.15). This situation is stimulating research into the economic, political and industrial issues associated with the workforce, for example with the Centre of Labour Research at the Australian Institute for Social Research in Adelaide and the Workplace Research Centre in Sydney.

Set against the background of demographic change and new labour market forces, information and knowledge are being increasingly recognised by business and government to be key drivers for social, technical and economic development. It is imperative that library and information professionals secure their place in this changing world. The literature abounds with references to the challenges the profession faces: “Change the lightbulb or flick the switch – our choice” (Cleyle & McGillis, 2005), “The role of the library in the wired society – compete or withdraw” (Sommers, 2004), “Ambient findability: libraries at the crossroads of ubiquitous computing” (Morville, 2005), “Libraries now have the power to be so much more, or so much less” (Tennant, n.d., cited by State Library of Queensland, 2006). These are indeed challenging times for the library and information services (LIS) sector. Some commentators have suggested that the specific demographic picture of the Australian LIS sector intensifies the challenges. A few years ago, in his role with the Australian Library and Information Association (ALIA) as advisor in the area of industrial relations and employment, Teece (2002) openly challenged employers in the LIS sector, with its “acutely ageing workforce”, to give serious consideration to succession planning issues to counter the predicted “crisis in labour supply that ageing of the baby-boomer population bulge [would] inevitably create”. Later in 2004, Teece warned that “more effective succession planning via employment of younger people should clearly be a vital policy issue for the sector”.

However, in common with many jurisdictions, it is difficult to ascertain the exact make-up of the Australian LIS sector. The library sector is comprised of public, academic and special libraries, and people with qualifications in library and information science may work beyond traditional libraries in the areas of information and knowledge management, archives or public policy. Statistical information reports that in addition to the National Library of Australia and eight State and Territory Libraries, there are around 1800 public libraries. There are 38 university libraries and about 70 libraries in the colleges of Technical and Further Education (TAFE). The latest figures for corporate and government libraries indicated there were 1128 in 1999 (Smith, 2001). In addition there are about 9500 school libraries.

Drawing on a range of sources published by the Australian Bureau of Statistics (ABS) and the Department of Employment and Workplace Relations (DEWR), Australian Job Search (2006) contends that the LIS sector in Australia comprises a total workforce of 28,000, with 13,000

(46%) being librarians; 5,000 (18%) being library technicians; 7,000 (25%) working as library assistants; and 3,000 (11%) archivists or allied professionals. The LIS sector has been reported as having a highly feminised, ageing workforce, with published figures stating that 60% of workers are aged 45 years or over, compared with the figure of 35% across all occupations, and only 14% are under 35 years of age, compared with 42% across all occupations (Australian Job Search, 2006). However, this demographic picture of the ageing LIS workforce is not limited to Australia: indeed around the world professional alarm bells have been ringing, stimulating research in a number of countries such as Canada, the United States and the United Kingdom.

International initiatives

In Canada, a national research project culminated with the published report, “*Future of human resources in Canadian libraries*” (Ingles et al, 2005). The project, referred to as the ‘8Rs project’, was funded collaboratively by the Canadian Library Association (CLA), regional library associations and a number of key employers across the library, museum and archives sector.

In the United Kingdom, the primary focus has been on the public library sector, with the “*Recruit, retain and lead*” project (Usherwood et al, 2001), which was initially instigated by the British Library Research and Innovation Centre, with funding and responsibility passing to the Library and Information Commission, and subsequently to Re:source: the Council for Museums, Archives and Libraries. A further study, *Towards a strategy for workforce development* (Re:source, 2003), was undertaken to identify the information required for the Council to determine its role in workforce development and leadership. Re:source changed its name to the Museums, Libraries and Archives Council (MLA) in 2004. The MLA is funded by the British Department for Culture, Media and Sport. The organisation has a strong regional presence with nine district agencies providing local focus across England, and enjoys close relationships with the MLAs in Scotland, Wales and Northern Ireland. The MLA’s strategy work in turn led into the development of the “*Learning for change: Workforce development strategy*” (MLA, 2004). The MLA has committed £1.25 million to the workforce development strategy.

In the United States, the Institute for Museum and Library Science (IMLS) awarded almost US\$1 million to the University of North Carolina at Chapel Hill and a number of key partners from the University of Pittsburgh, Syracuse University, Special Libraries Association (SLA), Association of Research Libraries (ARL) and the American Society for Information Science & Technology (ASIS&T), to undertake a research study into *The future of librarians in the workforce*. At the sectoral and regional levels, the Association of College and Research Libraries (ACRL) has reported on their study, *Recruitment, retention and restructuring: Human resources in academic libraries* (ACRL, 2002) and the Library Research Service (LRS) has published its report into *Retirement, retention and recruitment: The future of librarianship in Colorado* (Steffen et al, 2004).

In England, there were concerns about the “cultural malaise” that infected many library and museum workplaces, with an increasing awareness that the sector was failing to attract the

best and brightest employees. There was a sense of disaffectedness amongst the workers, as well as amongst the managers. Negative statements were repeatedly heard by the researchers: “we are all over the place”, “the position in relation to staff development is abysmal”, “the higher your position, the less training you get”, “the barrier to your training is your director” or “people treat going on a training course as if it were a punishment” (Re:source, 2003, p.4). The sector was perceived to have endemic problems: willpower was lacking, inertia ruled and there was open hostility to learning: “The barrier to training is the belief that you do not need to be trained, yet the people who don’t want to be trained are the ones that need it most” (Re:source, 2003, p.5).

These micro level concerns translate into macro level issues. These include common concerns about the ageing and the inevitable retirement of senior LIS professionals; low unemployment levels, meaning a dwindling pool of applicants to recruit from; flattening or even declining numbers of LIS graduates; the increased competition from other career sectors; less than competitive salaries; and the lingering negative image of the profession. The Canadian study distilled these issues in to eight key elements or the 8Rs: Recruitment, Retention, Retirement, Remuneration, Rejuvenation, Restructuring, Repatriation and Re-accreditation (Ingles et al, 2005). These elements focus in turn on the pressure to ensure there is a sufficient number of adequately trained and experienced staff, plus the critical need to rejuvenate mid-level staff who, due to downsizing and hierarchical flattening of the organisational structures in the library workplace, have not had the opportunity to develop the necessary managerial or leadership skills. Fundamental to the whole debate is the need to identify the required knowledge, skills and attributes of both current and future staff.

A number of parallels are apparent in the scope of the IMLS study which seeks to identify the true nature of the anticipated labour shortages in the LIS field that may result from the retirement of older workers. The IMLS study seeks to review the importance and value of libraries, particularly from the perspective of the funding bodies, users and potential recruits into the workforce. The key questions therefore are: What job opportunities will exist for future library and information professionals? What skills will librarians need to provide effective library services? Can LIS schools educate sufficient numbers of librarians to meet the projected needs? These questions will ultimately be channeled into the LIS profession’s future strategic directions: What changes in recruitment, curriculum and employment incentives will be required to meet the projected workforce needs? What strategies should in fact be developed and pursued to address the anticipated needs in terms of the recruitment, education and retention of librarians?

The complexity of these research projects cannot be denied. Inevitably a wide range of research approaches have been or are being used to capture the full range of quantitative and qualitative data which, when analysed, will inform the future direction of the LIS profession. Common to all projects has been the need:

- to conduct an in-depth review of the literature, particularly to contextualise the research within national, regional and cultural situations;
- to establish a core reference group or steering committee of industry representatives, which once again helps to contextualise the process;

- to examine the relevant statistical data already collected by key agencies in the field or the sector;
- to develop the relevant survey instruments to capture demographic, education, career and affective data from individuals and
- to capture organisational information on current workplace practices.

The IMLS study also hopes to record information about the changes that have taken place over the past five years, in terms of the types of services provided to users, the tasks and functions performed by individual staff and the knowledge, skills and attributes required by the staff to effectively perform those tasks and to deliver the services.

Australian initiatives

Meanwhile, what about the profession in Australia? What do we already know? How accurate were the anecdotal reports that vast numbers of LIS professionals would be retiring en masse over the next few years? Little research has been undertaken beyond the general statistical information collected by the ABS through its population census and general labour force statistics. The Australian Job Search website (2006) collates career-specific information including data on librarians, library technicians, library assistants, archivists and intelligence professionals. Almost ten years ago, ALIA commissioned the Australian Centre for Industrial Relations Research and Training (ACIRRT) to conduct a survey of ALIA members to identify some of the key characteristics of the profession. A summary of the key findings, ie basic demographics, data on remuneration, casualisation of jobs, professional security and attitudes to change, was published in *InCite* (Teece, 1998), providing a very general snapshot of the profession in 1997.

It is acknowledged that a number of other initiatives are being undertaken, indicating that there is indeed a growing concern about workforce development issues, leadership and succession planning across the different areas of the LIS sector. Generally speaking, the studies are fairly informal, conducted by individual institutions or small consortia. The University of Melbourne was the first organisation to explore the issue of workforce planning in Australian academic libraries, highlighting the lack of long term planning for the future of the workforce (Bridgland, 1999). The Libraries of the Australian Technology Network (LATN) (ATN being the consortium of 'technology universities' in Australia) engaged Canadian consultant Vicki Whitmell to work with the individual institutions and the group as a whole "to identify overall issues and concerns relating to succession planning and workforce planning among the ATN libraries" (2005). Individual ATN libraries, eg Queensland University of Technology, are subsequently progressing the work stimulated by Whitmell (McCarthy, 2005), while other related consortia, such as the Queensland University Libraries Office of Cooperation (QULOC) are also exploring the impact of the issues on their members.

A number of other library organisations in Australia are engaged in workforce planning activities within their sector. The State Library of Victoria has recently been examining some of the key issues as part of their *Workforce sustainability and leadership* project (van Wanrooy, 2006) to inform workforce strategies that will support the ongoing development of

the Victorian public library network. Other State libraries, major public libraries and university libraries are debating the issues and drafting preliminary workforce development plans. This is a positive situation, but as much of this work is being undertaken as internal processes, there are possibly some negative factors such as the duplication of effort across the organisations and a failure to share ideas to potentially develop models of best practice. It was therefore felt that there was scope for a major Australian study to capture demographic, educational and employment data about LIS professionals at the individual level, as well as employment policies and practices at the institutional level to help the sector obtain “a comprehensive overview of the [LIS] professional resource issues, challenges and opportunities” (Professions Australia. 2005, p.15). In terms of planning for the future, the LIS sector cannot afford to ignore the key issues that represent the nexus, ie the links, connections, or the series of connections, between education, curriculum, recruitment, retention, training and development that can potentially sustain and develop the LIS workforce in Australia.

The neXus research project

The *neXus* research project comprises three different, yet interrelated, studies, with the key stakeholders in the initiative being Queensland University of Technology (QUT), the Australian Library and Information Association (ALIA) and CAVAL Collaborative Solutions (CAVAL). Stage One, referred to as the *neXus* census, was an online survey of individual LIS professionals; Stage Two investigates workforce policies and practices in LIS institutions. At the time of preparing this paper, the survey of individuals has been completed, with a preliminary analysis of the collected data. The survey of institutions has concluded its pilot stage, following the collection of data via a questionnaire distributed to members of the CAVAL consortium of Victoria, which principally has members in the academic library sector. An international study tour has provided the opportunity for a review of various models of successful professional development programs, specifically those offered by university library schools, both independently or in collaboration with training providers and/or professional associations. The current paper can be viewed as a progress report, prepared three months into the project, to provide insights into some of the preliminary research findings.

The individual *neXus* survey was initially launched at the ALIA Biennial Conference held in Perth, Western Australia in September 2006. The self-administered questionnaire was accessible online for one month, with a direct link from the home page of the ALIA website, and was promoted widely via ALIA, LIS special interest groups and organisational e-lists. The survey sought to capture a range of data about the LIS profession, including demographic, employment and educational data, to help the research team better understand the nature of our profession in 2006. The survey attracted 2346 valid online responses and eight paper-based responses

The institutional survey that was the principal research instrument in Stage Two was developed in collaboration with the Staff Development Coordinators (SDC) Committee of CAVAL. This angle of the research commenced with an initiative to update earlier studies into training and development practices amongst the member institutions of CAVAL (Smith, 2002, 2006). As the proposal to update this research coincided with the initial *neXus* census work,

there was an opportunity to extend the study to cover recruitment and retention policies and practices in the member institutions. It was believed a deeper understanding of these issues was integral to the analysis of training and development activities in the individual organisations. The survey instrument was distributed in hardcopy to the university librarians of the thirteen members of CAVAL. This extensive institutional survey covers four main areas of workforce activity that are considered important pieces of the LIS workforce jigsaw puzzle: general staffing information, recruitment and retention, staff development and succession planning. The researchers have hoped that the survey questions would stimulate discussion amongst key staff members in each organisation and encourage them to use the survey itself as a tool to review and reflect on current practice in their institution, so it could potentially be an effective staff development process in its own right. The surveys were returned to CAVAL at the end of November 2006, with the findings being collated and analysed in the ensuing weeks. It is hoped that, with the support and encouragement of the board of CAVAL, this study can serve as a pilot, so that the research instrument can be reviewed and refined to be used in a far wider study of policies and practices across a range of institutions in the LIS sector in Australia, to be undertaken in February-March 2007.

The international study tour was structured to make the most of the opportunity to understand some of the international perspectives that are relevant to the project. From the author's perspective as an academic, it was felt that there was scope for Australian universities to consider their role in providing career-long learning opportunities, ie beyond the qualifications for the beginning professional and meeting more in-depth learning needs than the one-day course. At the same time, professional associations play their own significant role in monitoring the need for and the quality of professional education, at both the professional and paraprofessional levels. Different countries offer diverse avenues to encourage career-long learning within the profession, with a range of government, corporate and academic models feeding into the process. The study tour provided the opportunity to consider the 'big picture' dimensions of LIS education and workforce planning through discussions with different players in different countries: with staff of universities that offer well-established models for successful continuing education programs; with professional associations involved in the development of and support for continuing professional development; with government agencies that have responsibility for education and training at the professional and paraprofessional levels in the LIS sector; and with organisations interested in the issues of leadership development. Together, the three strands of the research project, the individual census, the institutional survey and the international study tour, seek to establish a holistic and balanced understanding of the 'nexus' between education/curriculum/recruitment/retention/training/development in the LIS sector.

Developing a picture of the LIS profession in Australia

An important first step in the process of understanding our professional future is the development of a clear picture of who is currently in the profession and where they believe they are heading. The demographic, educational and career data collected will help develop a clearer picture of the LIS profession in Australia and could potentially be updated on a regular basis, for example every five years, to allow the profession to follow changes and trends that might emerge.

86.4% of all respondents in the *neXus* survey of individuals stated that they had completed their studies in LIS, while 7.7% were still enrolled in a course. Of those who had qualified or were studying, 79.2% already had or were working towards university-level ‘professional’ qualifications (librarians), while 16.8% had qualified with or were studying towards a vocational ‘paraprofessional’ certificate (library technicians). 4.0% of respondents indicated that they had no formal LIS qualifications. 17.8% of respondents identified themselves as new graduates, ie that they had gained their qualifications as an LIS professional or paraprofessional in the last five years.

The age profile of the respondents (professional and paraprofessional) in the *neXus* study shows a fair distribution of age groups, with 3.4% of respondents being in the age group of 18-25, 17.8% were 26-35 years, 26.5% were 36-45 years, 34.1% were 46-55 years, 16.8% were over 56-65 years and 1.6% were 66 years or older. In the context of workforce planning, the number of older workers heading towards retirement is of particular interest and will be discussed in greater depth later in the paper. The most recent figures published by the website Australian Job Search (2006) reported that 65.1% of librarians were 45 years and over. However, the data collected by the *neXus* census gives a lower age demographic for librarians, with 49.9% of librarian respondents being 46 years and over. The Australian Job Search data presents 24.7% of librarians being over 55, while the *neXus* census recorded that 16.1% of respondents with librarian qualifications fell into the category of 56 years and over. In the *neXus* census there were noticeably more respondents in the age group 26-35 (18.8% professionals), compared with the Australian Job Search figures which report 8.7% librarians aged 25-34. Figure 1 presents a general comparison of the data, but it should be noted that there is a marginal difference in the actual age groupings in the two studies, eg 26-35 (*neXus*) compared with 25-34 (Australian Job Search).

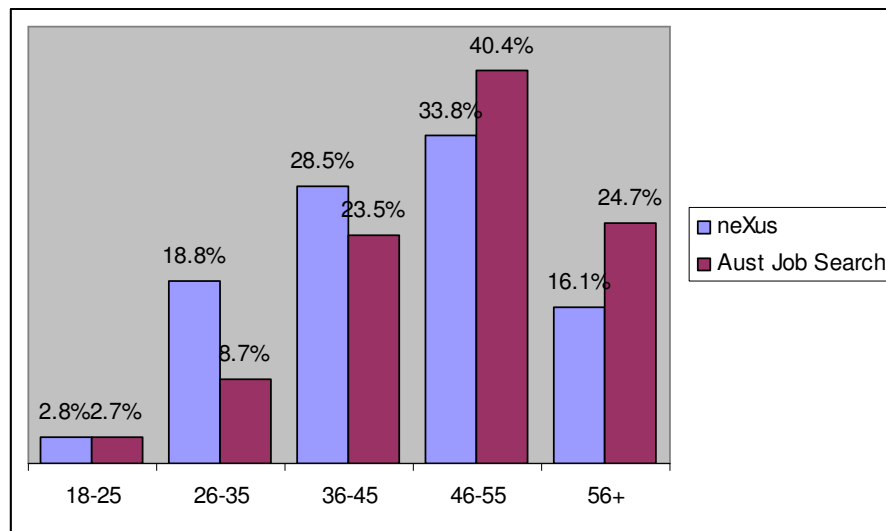


Figure 1: Comparison of age demographics for librarians: *neXus* and Australian Job Search (2006)

It was felt that there was a fair geographical distribution of respondents across the Australian States and Territories, although when compared with the ABS population data (2006c), there were noticeably higher proportions of respondents in the Western Australia, the Australian Capital Territory, Tasmania and the Northern Territory. Lower proportions of respondents were recorded for New South Wales and Queensland (Table 1).

State / Territory	neXus: All respondents	ABS Est. resident population
Victoria	24.4%	24.7%
New South Wales	22.2%	33.1%
Queensland	15.6%	19.6%
Western Australia	12.9%	9.9%
South Australia	8.3%	7.5%
Australian Capital Territory	6.9%	1.5%
Tasmania	4.7%	2.3%
Northern Territory	3.4%	1.0%
Overseas	1.5%	n/a

Table 1: Geographic distribution to compare neXus respondents with ABS (2006) figures

The *neXus* data also revealed that 70.8% of respondents worked in a state or territory capital city, 22.7% in a regional town or city and 6.5% worked in a non-metropolitan or rural area. As a comparison, the 2001 Australian census data indicates that 66.3% of the population lives in the major cities, 33.1% in regional areas and 2.6% in remote areas. While the ratio between the different age groupings remains fairly similar for both the capital cities and for the regional towns, there is a noticeable older demographic in the rural areas: 63.2% being 46 years and over, compared with an average of 52.0% for the capital cities and regional towns. At the younger end of the demographic spectrum, there is a similar drop in the number of younger people employed in the rural areas: figures indicate around 10% being in the age group 18-35 in rural areas, as opposed to the average of around 21% in the more populated areas. There was a fairly even split between respondents in the age range 18-35 regarding the willingness to seek employment in rural libraries: 43.8% indicated they would not want to, while 40.0% said they would be prepared to, if personal and family conditions made it possible. On the other hand, 72.2% of this age group declared they would be prepared to work overseas, with only 26.2% discounting the option. Personal and family issues were not seen to be a problem when considering international employment opportunities.

Naturally enough, respondents represented the different sectors of the profession, although 7.3% of respondents chose not to provide any details. Staff from university libraries represented 24.6%, public libraries 23.4%, special libraries (eg in Federal or State/Territory government, local government, corporate or not-for-profit organizations) 21.1%, National,

State and Territory libraries 8.5%, school libraries 7.5% and TAFE libraries 5.3%. A further 2.0% of respondents came from non-traditional LIS workplaces. A graphical overview of the respondents by sector is presented in Figure 2.

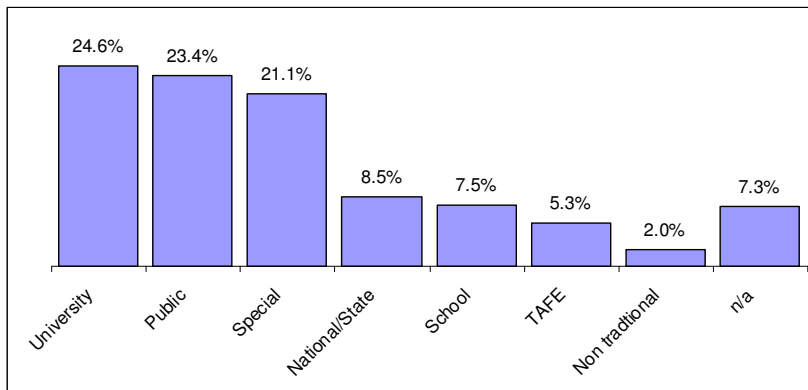


Figure 2: Respondents by LIS sector

The Australian LIS profession attracts a significant number of career change workers, ie graduates of LIS courses may be entering a second or third career. This has led to the need to distinguish between chronological age and career age. Following the model used in the Canadian study (Ingles et al, 2005, p.43), LIS workers can be grouped into three discrete career stages:

- Recent entrants – 5 years or less in the sector
- Mid career – 6-15 years experience in the sector
- Senior – 16 years or more working in the sector.

16.9% of respondents indicated that they were new entrants in the profession, so had been working in the sector for 5 years or less. 31.8% can be described as mid career workers (6-15 years experience) and 43.8% fit into the category of senior career workers (16 years or more experience). 7.4% of respondents failed to answer the question. The breakdown of career stage by professional and paraprofessional groupings is presented Figure 3. Further more detailed analysis by employment sector (academic, public, special libraries etc) and by state and territory will be undertaken in the future.

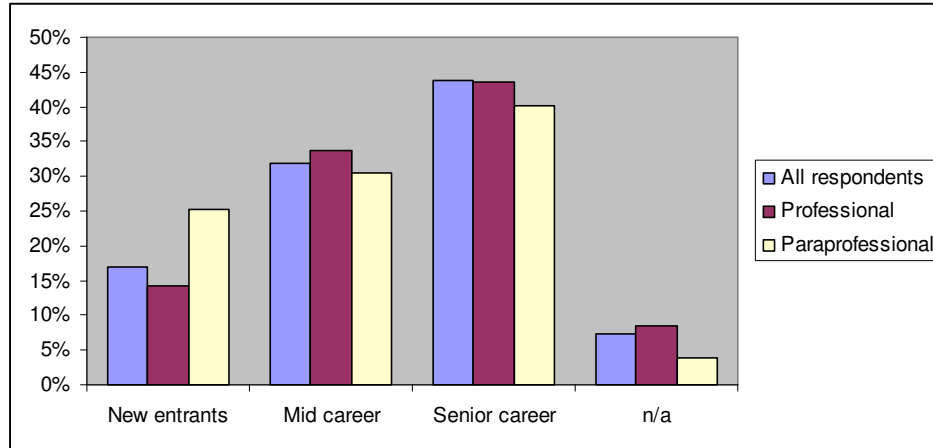


Figure 3: Career stages of respondents by professional/paraprofessional qualifications

In the context of workforce planning issues, it is important to understand the interplay between new entrants to the profession who may potentially wish to gain a variety of experience and diverse employment opportunities early in their careers, which can result in more frequent hiring and induction processes for employers, and a stable workforce in the mid and senior career stages that may see little change in personnel, but where the jobs themselves may manifestly reflect incremental changes in the functions that individual workers may need to perform. Training and skills development are therefore critical to both these groups of workers. In terms of continuity of employment, the number of people who had been employed by the same organisation for 5 years or less was 41.7%, while 33.4% had been with the same employer for 6-15 years and 17.4% had stayed with the same institution for 16 years or more. 53.3% of respondents had held their specific job for less than five years, 19.0% had the same position for 6-10 years and 19.9% had been in the same role for more than 10 years.

The *neXus* questionnaire also sought to examine people's retirement plans, to determine whether or not there might potentially be a dramatic exodus from the profession in the next five to ten years. The loss of older workers through retirement is directly related to the skills debate: the ability to attract and retain a skilled workforce, as well as to introduce more flexible employment options, will be a critical factor if the LIS sector is to survive – and indeed prosper – in a highly competitive labour market. Respondents in all age groups and career stages were asked to give the age when they thought they may hope to retire. Bearing in mind that the researchers cannot anticipate the fiscal or social policies that may be introduced by governments in the years ahead which might impact on the respondents' current viewpoints, it was found that 5.4% hoped to retire before they reached the age of 55, 27.8% suggested they hoped to retire between 55 and 60 years of age, 18.4% suggested between 61 and 65, 13.9% indicated at 65 years, and 13.7% hoped to retire after they reached the age of 65. 12.6% did not know at what age they might retire. Of course, there may be a certain degree of wishful thinking on the part of respondents, especially for those in the younger age categories where there is a higher level of career uncertainty; perhaps more realistic were the responses to the question about how long it would be until respondents did retire, especially for those workers in the older age brackets. The demographic data collected in the *neXus*

census reports that 16.4% of LIS workers (professionals and paraprofessionals) are aged 56 years or over and therefore ostensibly eligible for retirement within the next ten years (assuming the retirement age of 65 years), but it is acknowledged that in the 21st century, retirement decisions do not necessarily correlate with chronological age. Some workers may wish to consider early retirement and some may wish to continue working beyond age 65. Indeed, Canadian research has highlighted the prospect of ameliorating the effects of retirements by changing the rate of retirement itself, for example through the introduction of more flexible work arrangements which can encourage later and more gradual retirement (McMullin and Cooke, 2004).

15.8% of respondents indicated that they aimed to retire from the workforce within the next five years, with the figure of 6.5% retiring within the next 3 years and 9.3% retiring between 3 and 5 years. A further 15.9% plan to retire in the period of 6-10 years time, meaning that at this point in time almost one third (31.7%) of the workforce will have retired by 2015 (see Table 2).

Years until anticipated retirement	%
1-3 years	6.5%
3-5 years	9.3%
6-10 years	15.9%
Total 2006-2015	31.7%

Table 2 : Anticipated time until retirement

This figure is in fact almost double that of those who actually fall into the chronological age group of 56 years and older, and once again it must be stressed that current plans for early retirement may not be realised. One positive aspect of these figures is that the process is likely to be progressive, rather than a dramatic shedding of older and more experienced staff.

A closer look at retirement issues

The *neXus* study sought to determine the types of skills that would be lost when people in the senior career stage left the workforce. The research findings indicated that of those planning to retire within the next 5 years, 40.2% were at the middle management level and 21.4% were at the senior management level. These groupings of respondents were then examined from the perspective of the tasks they performed, with specific attention paid to the professional and job functions they reported performing ‘often’ or ‘very often’. It was not surprising to find that the functions performed at the senior management level had a strong administrative and managerial focus: 89.8% were regularly involved in organisational planning activities (three quarters of them ‘very often’) and 87.7% regularly involved in budget and financial activities (again, three quarters stated ‘very often’). Policy development and the management of training and staff development were also key functions (83.6% and 81.6% respectively). Other significant responsibilities included space, facilities and building management, marketing and public relations, and human resources planning and management. Senior managers moving towards retirement indicated that they were still involved, on a regular basis

but to a lesser extent, in other functional areas such as collection development and evaluation, the acquisition, receipt and payment of library resources, information literacy, and liaison activities. It was noted that there was considerable similarity in the responsibilities of all senior managers, whether they planned to retire in the next five years or aimed to continue working for another six years or more, although those continuing their careers for a longer period reported a slightly higher level of involvement in the area of human resource management and staffing than those who would be retiring.

Middle managers heading towards retirement reported that they continued to be regularly involved in discipline-specific functions such as collection management (66.3%), or reference, information service and research support (58.7%). However, it was interesting to note that there were significant differences between two groups of middle managers in terms of the responsibilities and functions they reported, firstly those retiring within five years and secondly those who would be employed for a further six years or more. When compared with those at the middle management level who would be retiring within five years, those aiming to continue their careers for a longer period of time reported a higher occurrence of work in almost all functional areas of management (see Table 3 and Figure 4).

Professional functions	Middle managers retiring within 5 years	Middle managers planning to work 6 yrs +
Marketing and public relations	38.0%	52.7%
Space, facilities & buildings management	42.4%	50.3%
Managing training & staff development	48.9%	65.3%
HR planning and management	49.0%	59.0%
Policy development	53.2%	64.3%
Budgeting & financial management	60.9%	65.1%
Supervision and evaluation of staff	66.3%	77.0%
Organisational planning	67.4%	77.6%

Table 3: Comparative levels of managerial functions performed ‘often’ or ‘very often’ by middle managers retiring within 5 years and those planning to work for 6 years or more

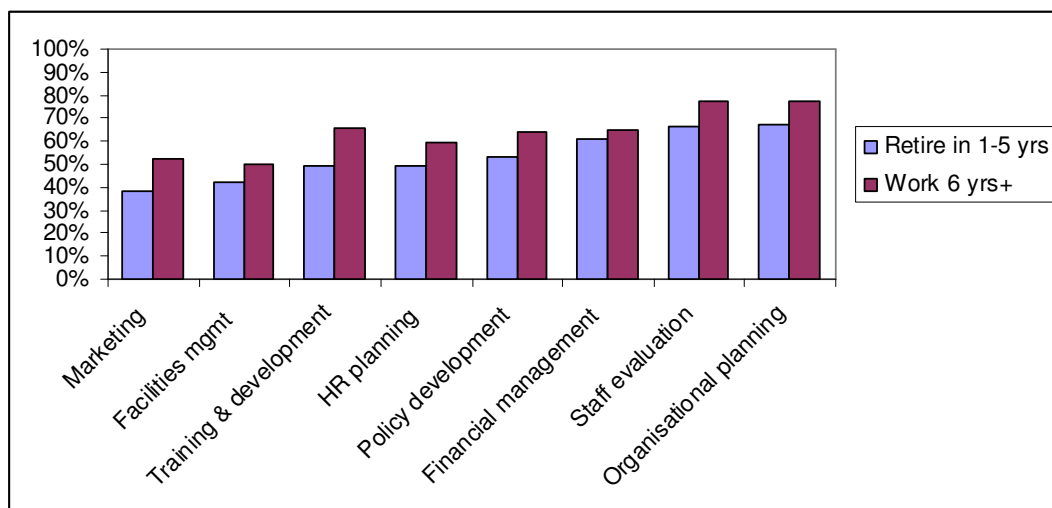


Figure 4: Comparative levels of managerial functions performed 'often' or 'very often' by middle managers retiring within 5 years and those planning to work for 6 years or more

A correlation made with the ages of these two groups of middle managers determined that those who planned to retire within five years were all 46 years and older, albeit with almost one third of those actually aged 46-55, so retiring in advance of the 'normal' retirement age. Those who would not be retiring within five years presented a considerably younger age demographic, with 52.8% being 45 years and under, with about 30% of those being 40 years and under. The comparison of chronological age, career stage and the professional functions performed augurs well for the future, as it could be interpreted as evidence that there is indeed some significant progress being made in terms of succession planning, with younger middle managers more regularly acquiring greater responsibility for a wide range of managerial activities, whereas this situation was less frequently the case for their older, pre-retirement colleagues. The situation may also have arisen through restructuring initiatives that have contributed to the emergence of new roles, including "the need for librarians to perform an ever-widening array of tasks, to increasingly perform management and leadership roles" (Ingles et al, 2005, p.179). Additional analysis will be of interest in the Australian context, to determine which specific areas of the profession (eg by sector and/or by state) are leading the way in this process. Furthermore, it would be valuable to augment these preliminary research findings by conducting focus group discussions with the different cohorts of middle managers to discern the changes in roles performed and any similarities and differences in education, training and staff development.

A closer look at training and development issues

Stage Two of the Australian workforce planning study, the institutional study of recruitment and retention activities and the investigation into training and development policies and practices, which has been undertaken at the pilot level with the members of CAVAL, offers the opportunity to review and appraise the organisational focus on staff development issues. The findings from this institutional study will be reported in future professional forums and publications. In the meantime, the *neXus* survey of individuals has sought to gather the views of LIS professionals and paraprofessionals about their own education and training. Questions were posed about how often people participated in either formal and informal learning activities, the areas of professional practice where people had received training, whether through course attendance or through workplace learning activities, as well to consider the extent to which respondents felt the training had contributed to improved work performance.

It was found that 39.8% of respondents 'sometimes' attended formal activities such as conferences, workshops or training events, while 28.4% attended 'often' or 'very often'. There was greater participation in informal learning activities in the workplace, with 42.1% reporting that they were involved 'often' or 'very often' and a further 33.4% 'sometimes'. 15.1% reported that they rarely or never attended informal learning activities, as opposed to almost a quarter of the workforce (22.7%) saying that they rarely or never attended formal training and development events. Overall, 59.1% of all respondents felt they had sufficient

training opportunities in their current employment, while 47.6% actually felt that they spent too much time in training courses. Paraprofessional staff were less happy about the amount of training they received, but ironically also felt more strongly that they spent too much time in training activities. Further analysis is required to review the field of staff development and the quality of the programs offered.

When asked about specific training and development activities undertaken with their current employer and the extent to which this training contributed to improved work performance, the greatest impact was achieved from technology training, with more than 56% of respondents reporting that the training had improved their ability to do their job, while job swaps had the lowest impact at 5.8%. The relative impact of training on work performance, as viewed by the respondents themselves, is presented in Table 4:

Area of training	Perceived positive impact on work performance (to a considerable or to a great extent)
Technology training	56.8%
Job-oriented skills training (excluding technology)	53.6%
Library issues, subject specific	43.0%
Customer service	33.3%
Management skills	27.1%
Leadership skills	25.5%
Mentoring	11.0%
Job rotation	10.3%
Job share	6.6%
Job swap	5.8%

Table 4: Areas of training in current employment that have had a positive impact on the quality of work performance

Respondents were further asked to consider what areas of training would be of benefit to their current career. The value of information technology (IT) skills training was acknowledged to be important by professionals and paraprofessionals alike, with 53.8% of professionals and 54.6% of paraprofessionals agreeing or agreeing strongly to the statement that their career would benefit from further IT training. With regards to management training, 56.0% of professionals agreed or strongly agreed that their career would benefit from further development activities, compared with 40.4% of paraprofessional staff. Business training was felt to be important to the careers of 48% of professional staff and 32.9% of paraprofessional staff.

As a complete contrast, however, very few respondents could see the value of leadership training in the context of their own careers. Only 2.6% of professional staff responded positively, compared with 3.1% of paraprofessional staff. In fact, more paraprofessionals (1.7%) ‘strongly agreed’ that leadership training would benefit their career than professionals (0.9%). Overall, 75.7% of all respondents felt there was little or no value to their careers for them to participate in leadership training. It must be noted, however, that these responses

were not aligned with the views captured by an open-ended question about the type of skills that were the most important to the individual's future career, where 19.5% of all respondents included leadership development or advanced leadership development as one of the most critical areas for their own career advancement. The researchers are aware that considerable confusion exists within the profession – not only in Australia and perhaps not only in the LIS sector – about the definitions and scope of the two concepts of 'management' and 'leadership'. It is believed that the topic of 'leadership' and what it means and represents is an issue which needs to be explored more deeply within the profession as a whole.

The training and development responses were also analysed from the perspective of the respondents' ambition to be in the position of senior management in ten years' time. While 10% of all respondents hoped to have become a senior manager within ten years, there were inevitably different levels of ambition within the different career stages. 9.1% of professional respondents in the new entrant career stage (with less than five years' experience) reported that they would like to be in the role of senior manager in ten years' time, compared with 1.1% of paraprofessionals; 17.6% of mid career professional respondents indicated this was their goal, compared with 1.8% of paraprofessionals; 25.8% of senior career stage people who were already senior managers hoped to continue the role (noting that 43.2% of the senior career/senior managers group aimed to have retired by 2015). Only 9.0% of senior career professional staff who did not currently hold senior manager positions (ie they were employed at the level of middle manager or supervisor) and 3.1% of senior career paraprofessional staff hoped to achieve the position of senior manager within ten years.

With regard to academic qualifications and experience, 77.3% agreed or strongly agreed that they had sufficient education, training and experience to effectively perform their current job. While 61.9% felt that they were actually overqualified for the position they held, a far lower figure of 29.8% believed that they had the right level of education, training and experience to be promoted to a higher position. In response to questions about the amount of interest in further study, 20.6% of all respondents expressed interest in completing further academic qualifications. However, only 1.8% of respondents were considering a Master of Business Administration (MBA) and 0.1% a Master of Public Policy (MPP). The low figure of interest in MBA and MPP studies contrasts further with the figure of 56% of professionals who believed that their career would benefit from management training. It is hoped that the institutional survey will provide further insights from the employer perspective about the need for management development.

The interest in higher degree programs, or research studies, was considerably lower than more general academic studies. 2.5% of all respondents indicated that they hoped to pursue PhD studies, and a further 2.9% stated that a research master's degree in LIS was in their sights. Research studies in Australia have already highlighted the low levels of interest in research work within the LIS profession (Macauley, 2004). The preliminary findings from the *neXus* study underscore the lack of enthusiasm about research and publishing within the discipline, with 5.3% of all respondents indicating that they 'often' or 'very often' were involved in undertaking research or preparing professional papers. The figure was not much higher at the senior management level, with 8.8% of this group reporting active involvement in publishing or research. These figures mean that only a very small percentage of the LIS sector makes any

contribution at all to the developing the body of professional knowledge. Sadly, the gulf between research and practice looks set to continue for a long while yet.

Respondents were asked to report on the level of their involvement in professional activities, with 27.8% reporting that they were professionally active ‘often’ or ‘very often’, and a further 25.3% being professionally active ‘sometimes’. Almost a half of LIS workers (47%) state that they have little or no professional engagement. The issue of professional engagement is also reflected in the figures for membership of a professional membership, with less than half of the respondents being members of the Australian Library and Information Association (ALIA): 42% of respondents said they were currently a member of ALIA, with a further 10.2% planning to join in the next 12 months. ALIA was by far the association with the highest level of membership. The next levels recorded for membership of professional associations were the Australian Law Librarians Group (ALLG) at 4.6%; Australian School Libraries Association (ASLA) 4.4%; Public Libraries Australia (2.5%) and Australian Institute of Management (AIM) 2.1%, SLA 1.4% and Records Management Association of Australia (RMAA) 1.3%. There was a scattering of memberships (0.6%-1.0%) of international associations such as the Library and Information Association New Zealand (LIANZA), Chartered Institute of Library and Information Professionals (CILIP), Canadian Library Association (CLA), American Library Association (ALA) and the International Federation of Library Associations and Institutions (IFLA). Significantly, most people who indicated membership of these other associations were also members of ALIA.

In terms of the age of respondents who reported being a member of ALIA, the distribution was in fact closely aligned with the chronological age of all respondents, although the proportion of ALIA members in the various age brackets over 50 years was slightly higher than those in the younger age groups (Figure 5). 18.4% of respondents who were members of ALIA were under 35 years, 25.0% were aged between 36-45, 35.2% were between 46-55 and 21.4% were 56 years and over.

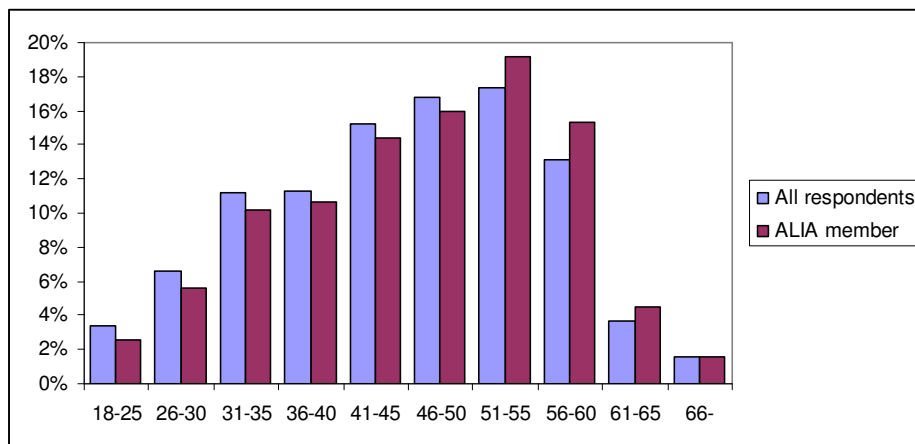


Figure 5: Comparison in age: all respondents and respondents who were members of ALIA

When the cohort of respondents who were members of ALIA was analysed from the perspective of career stage, the results showed that around 50% of senior career workers were members, around 30% of mid career members and about 20% of new entrants, again being very similar to the ratios for the career stages of all respondents (48% senior career, 32% mid career, 17% new entrants). The impact of retirement on the membership of ALIA is an important factor for the association: 16.8% of current ALIA members indicated their plans to retire within 5 years, with a further 16.3% retiring before 2015. ALIA will need to seriously consider membership recruitment strategies to retain the current membership base, should one third of its members leave the association when they retire from the workforce in the next ten years.

An interesting correlation can be made when using professional engagement as the determinant for interest and participation in training and development activities (see Figure 6).

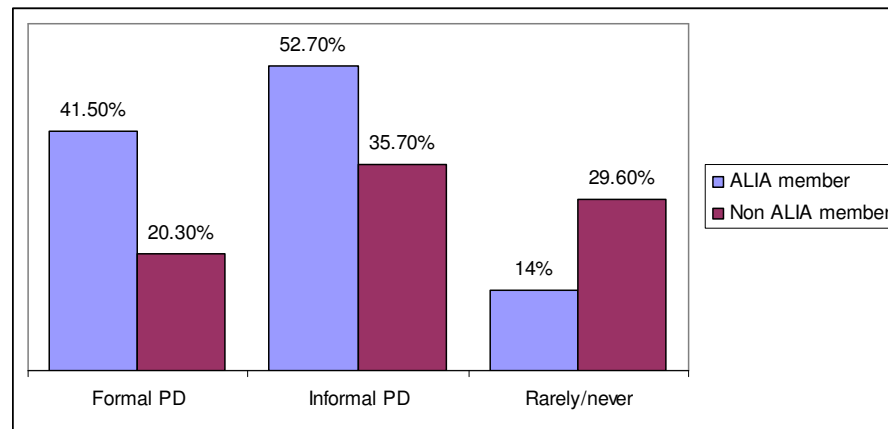


Figure 6: Correlation between membership of ALIA and participation in continuing education activities

The data collected indicates that membership of the professional association, ALIA, is directly related to the respondents' regular (ie 'often' or 'very often') attendance at formal training and development activities such as conferences, seminars or workshops, as well as participation in informal workplace learning activities. The opposite also applies, that non-membership of the professional association is linked to higher levels of 'rarely' or 'never' participating in continuing education activities.

Discussion

There is a close connection between workforce planning issues on the one hand and education and staff development issues on the other. A number of studies across the globe have reviewed the core knowledge and skills needed by LIS professionals, all of which underscore the dynamic nature of the profession as a whole and the evolving skill set that is needed for effective and innovative LIS practice (Garrod & Sidgreaves, 1998; Dalton & Nankivell, 2001;

Nicholson & Tattersall, 2001; Nicolson, 2001; Pettigrew & Durrance, 2001; Dearstyne, 2002; Partridge & Hallam, 2004; Corral, 2005; Fisher, Hallam & Partridge, 2005; Ingles et al, 2005; Kajberg & Lørring, 2005; IMLS, 2006). Analyses of employment advertisements for a full variety of professional staff in different countries have allowed insights into the current employment needs, as seen through the lens of the employer and as expressed within the market place (Nicolson, 2001; Fisher, Hallam & Partridge, 2005; Marion et al, 2005; Myburgh, 2005).

While adverts are admittedly an inconsistent source of absolutes in the skill requirements of any positions they relate to, they do represent the impetus for individuals to begin to match themselves against the attributes, qualities, skills and experience that employers express in their recruitment offerings. The double helix model of DNA has been used to highlight the intertwined strands of discipline knowledge and generic capabilities that are integral to the professional make-up of the LIS worker (Partridge & Hallam, 2004; Fisher, Hallam & Partridge, 2005). Job advertisements encompass the need for candidates to have a mix of both professional and generic skills and experience. In the various studies of job advertisements, the most frequently asked for generic capabilities were communication skills, personal information technology skills, knowledge/awareness of IT systems and applications, staff management; strategic management and interpersonal skills, with candidates needing to be self-motivated, enthusiastic, committed, organised, flexible, creative team players with vision. The discipline specific skills needed were found to be user needs/user focus/customer care, information literacy/user education, cataloguing/classification/metadata, digitisation of items in the collection and collection management and promotion. In the public library arena, the major foci are reference skills, high levels of customer service skills, user education, oral communication and teamwork. In academic libraries, the need to develop the role of the LIS professionals in technology-based teaching and learning has led to an increasing emphasis on the liaison role with faculty staff, information literacy activities including networked learner support, requiring an understanding of curriculum issues, teaching and learning processes, and the development and presentation of learning materials for virtual learning environments. Skills in online research, retrieval and evaluation of electronic resources are in great demand (Fisher, Hallam & Partridge, 2005). In the corporate sector, employers were looking for staff management/team leadership, effective communication, operations management, financial management, business analysis, project management, and understanding of legal issues and IT knowledge (network and communications, website, Internet, intranet, content management, taxonomies, indexing, thesaurus construction) (Nicolson, 2001, p.2). In all sectors, the incessant push of IT-based systems and IT knowledge requirements for LIS professionals cannot be ignored.

The recent Canadian *8Rs* study sought to determine the drivers of change to the roles of LIS professionals. Not unsurprisingly, IT applications have had the greatest impact, with 87% of institutional respondents identifying the increased use of IT as “the most influential determinant of librarian role change for all library sectors” (Ingles et al, 2005, p.178). IT developments will inevitably continue to have an enormous impact on the roles and skills of staff working in library and information services. The Skills for new Information Professionals (SKIP) study conducted in the UK almost a decade ago highlighted the impact of technology on the profession: “One message is clear however and applies to staff at all levels and across the spectrum of responsibilities – whilst some staff may need a portfolio of

skills, including high level IT skills, to meet the requirements of their particular function, all staff, working in today's electronic library environment, must be comfortable working with IT" (Garrod and Sidgreaves, 1998, page 2 of 7).

On another level, both management and leadership skills are expressly sought for senior roles. Nicolson postulated that there was an undersupply of people with the skills employers are looking for, especially in the middle to senior management levels (2001, p.1). Higher level management and leadership skills need to be developed both in the workplace and through continuing professional development. Indeed, employers have the responsibility to support and encourage the development of these skills. The information leaders of tomorrow will need to engage in continuous learning, keeping a watchful eye on changes in their working environment, to ensure that their own professional skills remain current and relevant. Leaders of the profession in the 21st century will need to demonstrate flexibility, along with highly developed capabilities such as communication, both in terms of what is communicated and how it is communicated; drive, ie energy, initiative, persistence; team management, ie direction setting, motivation, conflict management, adaptability; the ability to influence peers, superiors and subordinates; problem solving and decision making; knowledge of the job and its context, as well as identifying new opportunities (Nicolson, 2001, p.3).

The data collected in the *neXus* survey can be regarded as the first step in helping the LIS profession in Australia understand the demographic, educational and career paths of both professional and paraprofessional workers. Subsequent steps will involve the key stakeholders interpreting the data to determine its relevance to the different areas of university and vocational education, staff training and development and employment strategies. As further data is reported following the institutional study, it will be useful to correlate the information provided by individuals with the information provided by employers. The profession needs to critically appraise the need to manage and exploit new developments in information and communications technologies to make sure that library and information services truly meet the expectations of their users and that the staff employed in the sector have the skills and confidence to deliver and evaluate the services.

Furthermore, the profession should clarify the current confusion that exists between the concepts of management and leadership. The profession needs to be able to effectively review the opportunities for the development of the two related yet discrete dimensions of managerial and leadership skills for LIS professionals in Australia and to identify any gaps in the area of training and development, both through formal education and training programs and through workplace learning. Importantly senior managers need to have the vision to build both organisational structures and organisational cultures that will balance the factors associated with retirement of older workers and the factors associated with recruitment and retention. There must be a willingness to overcome the negative perceptions presented by a number of respondents who stated that their managers "did not care about training" or "did not believe in career development" so that they follow the examples of those who truly "supported" and "encouraged" professional learning and development. Senior managers must think creatively to ensure that, despite the challenges of limited or even dwindling budgets, the profession has the right combination of skills and experience to contribute to the future success of their own institution, the future success of the specific LIS sector and to the future success of the profession as a whole. Further pressures are likely if, as predicted, there is increased

competition for skilled workers. How can library managers best attract talented and motivated workers to the profession and how can they keep their passion and aspirations alive? They will need to understand and consider the motivations and aspirations of new entrants and mid career staff to support them as they move into management positions.

Conclusion

This paper presents the initial preliminary findings from the current research into some of the workforce issues that are pertinent to the LIS sector in Australia. The LIS profession undoubtedly faces a range of challenges as it faces a rapidly changing world of information technology, new media and the convergence of traditional and non-traditional dimensions of professional work. At the same time, there are significant changes taking place in the workforce, at both the macro and micro level, which cannot be divorced from the information environment in which the LIS profession operates. The current research project, with both Stage One, the *neXus* census, which aims to develop a clearer understanding of the individuals, their careers and their aspirations and Stage Two, which hopes to develop insights into the institutional policies and practices that govern staff recruitment and retention, as well as staff training and development, will hopefully encourage all stakeholders to work more effectively together to plan for the future of the profession in Australia. It is too dangerous to leave it all to chance; we need to “take a step forward in collaboration and create a flexible professional development system that is part of a serious, adequately-resourced, well-planned attack” (Williamson, 2006, p.559). There needs to be an ongoing focus on people entering and leaving the profession, along with the skills they bring with them, skills they need to develop as their career grows and matures, and the skills that will need replenishing as they retire. It is essential that we consider how individuals can be motivated and challenged to work keenly and productively, and to recreate the image of the library and information professional as being dynamic, engaged and in a state of perpetual growth.

If we are to achieve these goals, then career-long learning becomes integral to professional success and individual professional development needs to be supported through a combination of education, personal achievement and work-based opportunities. International studies have shown that technological developments are, and will continue to be, the most significant factors impacting on the profession and that managerial skills and leadership potential were two of the most important and difficult to fill competencies (Usherwood et al, 2001; Re:sources, 2003; Ingles et al, 2005). LIS professionals at all levels and in all roles will need ongoing training to ensure that their skill set is aligned with contemporary technological developments, not just to be competent in the functions they perform, but also to develop innovative information services that users need and expect. At the same time, research has confirmed that there is a very close link between staff development and staff retention, with the ability to retain high quality staff in a competitive market requiring a sharp focus on the qualities of the job itself, as well as a structured approach to timely and relevant training opportunities (Usherwood et al, 2001).

The LIS sector cannot ignore the reality and the impact of its own dynamic environment: the faster the pace of change, the greater imperative for staff development. The development of effective managers and perceptive leaders as part of the career development process is

imperative if the progressive pace of retirement from the profession, with its associated loss of skills and experience, is to be matched by incremental staff development strategies within it. At the same time, those continuing to work in the sector cannot be allowed to stagnate, but should have the opportunity for ongoing professional growth and stimulation. The process of developing innovative, visionary and successful library and information professionals is not the sole responsibility of the individual or of the LIS educator, but must be viewed as a sector-wide process that involves the individual, universities, training providers, employers and professional associations. Importantly it is the combination of formal external development events and the informal workplace training activities that, when combined with an active professional life, offer the richest opportunities for us all to focus on learning, strengthening and moving the profession forward.

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References

- Association of College and Research Libraries (ACRL) (2002). *Recruitment, retention and restructuring: human resources in academic libraries*. Chicago, IL: ACRL.
- Australian Bureau of Statistics (ABS) (2006a). *Population projections, Australia, 2004-2101 (Reissue) (ABS 3222.0)*. Retrieved June 24, 2006 from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/3222.0?OpenDocument>
- Australian Bureau of Statistics (ABS) (2006b). *Labour force, Australia, May 2006 (ABS 6202.0)*. Retrieved on June 24, 2006 from <http://www.abs.gov.au/ausstats/abs%40.nsf/mf/6202.0>
- Australian Bureau of Statistics (2006c). *Australian demographic statistics*. ABS Cat.No. 3101.0. Retrieved on December 7, 2006 from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/6949409DC8B8FB92CA256BC60001B3D1?OpenDocument>
- Australian Job Search (2006). *Careers*. Retrieved on December 7, 2006 from <http://jobsearch.gov.au/careersearch.aspx>
- Australian Public Service Commission (APSC) (2005). *Managing and sustaining the APS workforce*. Retrieved on June 24, 2006 from <http://www.apsc.gov.au/mac/apsworkforce.htm>
- Bridgland, A. (1999). To fill or not to fill – that is the question. Succession planning and leadership development in academic libraries. *Australian Academic Libraries*, 30(1), 20-29.
- Cleyle, S.E. and McGillis, L.M. (2005). Change the lightbulb or flick the switch – our choice. In S.E. Cleyle & L.M. McGillis (Eds.), *Last one out, turn off the lights. Is this the future of American and Canadian libraries?* (pp.xv-xix). Lanham, MD: Scarecrow Press.

- Ingles, E., De Long, K., Humprey, C. and Sivak, A. (2005). *The future of human resources in Canadian libraries*. Retrieved on November 17, 2006 from <http://www.ls.ualberta.ca/8rs/8RsFutureofHRLibraries.pdf>
- Institute of Museum and Library Services (IMLS) (2006). *The future of librarians in the workforce*. Retrieved on November 17, 2006 from <http://libraryworkforce.org/tiki-index.php>
- New South Wales. Legislative Council. Standing Committee on State Development (2006). *Inquiry into skills shortages in rural and regional New South Wales*. Sydney: The Committee. Retrieved on June 24, 2006 from [http://www.parliament.nsw.gov.au/prod/parlment/committee.nsf/0/f38fab9bb76cd71aca25716b0005c993/\\$FILE/Final%20Skills%20Report%2011%20May%202006.pdf](http://www.parliament.nsw.gov.au/prod/parlment/committee.nsf/0/f38fab9bb76cd71aca25716b0005c993/$FILE/Final%20Skills%20Report%2011%20May%202006.pdf)
- McCarthy, J. (2005). Planning a future workforce: An Australian perspective. *New Review of Academic Librarianship*, 11(1), 41-56.
- Morville, P. (2005). Ambient findability: libraries at the crossroads of ubiquitous computing. *Information Today*, 29(6). Retrieved on June 24, 2006 from <http://www.infotoday.com/online/nov05/morville.shtml>
- Museums, Libraries and Archives Council (MLA) (2004). *Learning for change: workforce development strategy*. Retrieved November 17, 2006 from http://www.mla.gov.uk/resources/assets//W/wfd_learning_for_change_pdf_5661.pdf
- Professions Australia (2005). *Skills mapping: Assessing Australia's longer term requirements for professional skills*. Retrieved on June 24, 2006 from <http://www.professions.com.au/skills.html>
- Re:source (2003). *Towards a strategy for workforce development: A research and discussion report prepared for Re:source*. Retrieved on November 17, 2006 from http://www.mla.gov.uk/resources/assets//I/id423rep_doc_6787.doc
- Smith, K. (2001). One-person libraries in the Australian special library environment. *Rivers of knowledge. 9th ALIA Specials, Health and Law Libraries Conference*, Melbourne: 26-29 August 2001.
- Sommers, P. (2004). The library in the wired society: compete or withdraw. A business perspective. *ALIA 2004 Biennial Conference: Challenging ideas*. Gold Coast, September 21-24, 2004. Retrieved on June 24, 2006 from <http://conferences.alia.org.au/alia2004/powerpoint/patrick.sommers.ppt>
- State Library of Queensland (2006). Welcoming quotes and statistics. *Towards the future of libraries: a forum*. Brisbane, March 29, 2006. Retrieved on June 24, 2006 from http://www.slq.qld.gov.au/__data/assets/file/37145/ExpHorizons.ppt#256
- Steffen, N., Lance, K.C., Russell, B. & Lietzau, Z. (2004). *Retirement, retention and recruitment: The future of Librarianship in Colorado*. Denver, CO: Library Research Service. Retrieved June 24, 2006 from http://www.lrs.org/documents/closer_look/RRR_web.pdf
- Teece, P. (1998). Australian library workers – who are they? *InCite* (4). Retrieved on June 24, 2006 from <http://www.alia.org.au/publishing/incite/1998/04/library.workers.html>
- Teece, P. (2002). Coming soon: a very different workforce. *InCite*, 23(3). Retrieved on December 7, 2006 from <http://alia.org.au/publishing/incite/2002/03/workwatch.html>
- Teece, P. (2004). America shows way on ageing workforce. *InCite*, 25(1-2). Retrieved on December 7, 2006 from <http://alia.org.au/publishing/incite/2004/01-02/workwatch.html>
- Usherwood, B., Proctor, R., Bower, G., Coe, C., Cooper, J. & Stevens, T. (2001). *Recruit, retain and lead. The public library workforce study*. Sheffield: Centre for the Public

- Library and Information in Society, Department of Information Studies, University of Sheffield. Retrieved on December 7, 2006 from <http://cplis.shef.ac.uk/workforce.pdf>
- Van Wanrooy, B. (2006). *Workforce sustainability and leadership: Scoping report*. Commissioned by the State Library of Victoria. Sydney: University of Sydney, Workplace Research Centre. Retrieved on November 17, 2006 from http://www.libraries.vic.gov.au/downloads/Public_Libraries_Unit/final_workforce_scoping_report_jul_06.pdf
- Whitmell, V. (2005). Workforce and succession planning in the libraries of the Australian Technology Network: preparing for demographic change. In A. Huthwaite (Ed.), *Managing information in the digital age: the Australian Technology Network Libraries respond*. Adelaide: University of South Australia, pp.157-178.