

Williamson Transcript

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Surviving change and growing the profession together

One of the inescapable facts of life is this: you can not escape change. In the past several years, we have certainly experienced dramatic change in both libraries and learning. With this ongoing change comes uncertainty, but with change also comes opportunity. We must remain committed to being flexible in our approaches, innovative in our responses, and focused on the needs of our clients. I quote Charles Darwin in saying, "It's not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change" (Voloudakis). I would like us to take a closer look at the transformational changes occurring in Australian postsecondary education and libraries and then briefly outline what I believe is our way forward, together.

Change in universities

Compared to a decade ago, Australian postsecondary education, especially our universities, has undergone tremendous change. You cannot think about academic libraries without taking note of these high-level changes. Professor Di Yerbury, Former Vice-Chancellor and President of Macquarie University and Past President of the Australian Vice-Chancellors' Committee, gave an insightful presentation in late 2005, entitled 'Ten Years: Looking Back - A Decade of Change and Challenges'. Yerbury provided a useful summary of the top 20 changes and challenges for universities over the last decade, as follows:

1. *Decline in government funds* per student, which is increasingly tied to performance, while more of it is on a contestable basis.
2. *Increase in number and diversity of students*, doing a greater variety of courses with women in the majority.
3. *Mounting student expectations*, demanding flexible, convenient, personal service, on-line access for information and communications.
4. *Expensive new technologies and systems*, affecting teaching delivery, programs, research, communications and administration.
5. *Quality Assurance and the Australian Universities Quality Agency (AUQA)*, with a focus on transnational quality assurance and the emergence of local and worldwide rankings.

6. *Mounting costs of reviews, regulation, red tape, reporting, risk management: the five 'R's*
 - 'social responsibility' legislation, and litigation
 - increasing intrusion by Government
 - 1995-2005: the 'Reviewathon'
7. Pressure to *improve governance and management*, including the national governance protocols and smarter and more flexible work practices - Higher Education Workplace Relations Requirements (HEWRR) compliance is a condition for increases 2006-07.
8. *Globalisation of student and other markets* with universities becoming very international.
9. *Increasing competition* from private, global education providers including online basis, eg, Phoenix and SUNY.
10. *Emergence of new Australian educational providers, plus lots of colleges* Melbourne University Private (MUP) (rose and sank); Notre Dame; Open University Australia (OUA), previously Open Learning Australia (OLA); IBT Education Group; Bachelor Institute.
11. Emergence of *sub-groups of universities*, such as The Group of 8 (Go8), Australian Technology Network (ATN), New Generation Universities (NGU), etc.
12. More reliance on '*user-pays*', with institutional reliance on government funding declining to around 40% in average institution (<30% in some).
13. Necessity of *commercial activities*, bring with it increased risk management; increases in costs exceeding income; several universities facing deficits soon.
14. More *students in work, for more hours*, facing significant difficulty in surviving on student income support and the associated impacts on study, and campus life.
15. More *students articulating into programs*, via both public and private colleges.
16. *Student:staff ratios have worsened*, and staff workloads have become more variable, reflecting the 'massification' of higher education alongside the decline in Government funds per student, and (since 1996) no supplemented for staffing costs.
17. *Pressures on physical accommodation*, while building costs mount (capital roll-in funds since 1997); emphasis on leveraging property assets; new capital funding vehicles being explored.
18. *Backing Australia's Ability (2001-11)*, including funds for commercialisation of research and the introduction of Research Quality Framework (RQF).
19. *Backing Australia's Future (2003-04)*, which represents the first major injection of funds for many years; flexible Higher Education Contributions Scheme (HECS), additional places.
20. Government expectations of *increased industry and community links* with universities viewed as a key part of national economic agenda re global competitiveness and the focus on 'third stream activities' and engagement [Institutional strengths to be developed through a triangular relationship amongst research, teaching and learning, and community and industry outreach].

(Yerbury)

Surely, significant challenges and opportunities currently exist and continually emerge within the sector.

We've looked at the decade past; so what might the future hold. What are the key changes and challenges that may impact on our future together as educators and librarians? In her article, 'Enterprise the Key to the Future,' Sandra J. Welsman outlines the worldwide changes that are just around the corner. She speculates that the, 'key drivers are, as ever, those of the marketplace: demographics, demand shifts based on need, cost and reward, and competitive new suppliers.'

Regarding demographics, Welsman envisions a scenario in which Asia weakens as a client region while Africa strengthens. Career-motivated Australian students will also embrace international education as 'born global' students choose to attend Asian or American institutions either overseas or at domestic branches. In 2016, Welsman predicts post-school education that will be 'on-call, practical and rewarding intellectually, emotionally and materially.' She believes that students as 'consumers' will 'weigh up whether whole-of-life returns will exceed fees, costs and loss of at-work earning and learning.' Blurring of the delineation amongst upper schools, universities and institutes will allow students and employers to invent 'creative work-based edu-ventures' as learning services are provided when, where, and how they are needed.

In this competitive new environment, new suppliers, both international and domestic, will emerge. As government protection for universities is eliminated, 'a stunning diversity of education and education providers [will be] recognised against robust globally calibrated measures.' Regional and suburban universities, now transformed into general liberal arts specialists, will work with local schools to retain local students. Professional courses will then be delivered at universities that have maintained 'academic curiosity towards research and training outcomes with impact across stakeholder communities' (Welsman).

Amongst all this predicted change, including the emerging international and private providers, educators and librarians must be alert and aware. Although all of Welsman's predictions may not come true, she is definitely correct in her advice for the future; she says, 'Institutions and individuals cannot wait; they need to presciently, creatively and actively chart their own ways ahead.'

Libraries Confronting Changes and Challenges

Academic libraries are impacted by the changes and challenges facing Universities. Over the last decade or so, the key changes and challenges impacting on academic libraries (perhaps libraries in general) have been focussed around clients, systems and technology; the scholarly communication process; and the learning environment. How

the library profession has responded to the changes has been a significant challenge in itself.

The first change and challenge is our clients.

Our clients - from their literacy and information technology skills base, to their age, language, background and socio-economic status - have all changed. Each student is different; this is something good librarians and teachers have long recognised. But now, we are assisting clients with not only different skills and expectations, but, perhaps, different brains as well.

Who are our clients?

In an article entitled 'Digital Natives, Digital Immigrants,' Marc Prensky states, 'Our students have changed radically. Today's students are no longer the people our educational system was designed to teach.' Presky continues:

Today's students - K through college - represent the first generations to grow up [emerged in] new technology. They have spent their entire lives surrounded by and using computers, video games, digital music players, video cams, cell phones, and all the other toys and tools of the digital age. Today's average college grads have spent less than 5,000 hours of their lives reading, but over 10,000 hours playing video games (not to mention 20,000 hours watching TV). Computer games, email, the Internet, cell phones and instant messaging are integral parts of their lives...

It is now clear that as a result of this ubiquitous environment and the sheer volume of their interaction with it, today's students think and process information fundamentally differently from their predecessors. These differences go far further and deeper than most educators suspect or realize. 'Different kinds of experiences lead to different brain structures,' says Dr. Bruce D. Berry of Baylor College of Medicine. ... [I]t is very likely that our students' brains have physically changed - and are different from ours - as a result of how they grew up. But whether or not this is literally true, we can say with certainty that their thinking patterns have changed.

(Presky)

'Digital Natives,' as Presky terms them, 'are all "native speakers" of the digital language of computers, video games and the Internet.'

As educators and librarians, we are not only struggling to deal with clients from the Digital Native generation, but we must also understand the expectations and needs from clients of many generations.

...Today's students are a varied group, composed of several generations. The Baby Boomers (born 1946-64), the Generation X-ers (born 1965-80), and the Millennials [or Digital Natives] (born after 1980) have different backgrounds in, experiences with, and

expectations of technology - and of higher education. . . . [There are] generational differences of opinion regarding technology - and also commonalities that transcend all . . . generations.

(Aviles)

These students from different generations have different abilities, backgrounds and expectations.

What do our clients want?

Modern students and researchers demand 'convenience, connection and control' (Borreson Caruso). They desire connectivity: information anywhere and anytime. They require customization; they don't want just any connection, but the connection. Additionally, content must be linked and structured. Most of all, students and researchers need competency; as educators and librarians we must assist them to develop the wit and wisdom to access, synthesise and evaluate information. Surveyed students stated that they needed IT systems and services that are 'fast, easy-to-use, and reliable' (Borreson Caruso). Students and instructors will not adopt technologies that are not reliable.

Additionally, students want us to use:

...emerging technologies to deliver instruction matched to [their] increasingly 'neomillennial' learning styles ... Based on 'mediated immersion,' these emerging learning styles include:

- Fluency in multiple media and in simulation-based virtual settings
- Communal learning involving diverse, tacit, situated experience with knowledge distributed across a community and a context as well as within an individual
- A balance among experiential learning, guided mentoring, and collective reflection
- Expression through nonlinear, associational webs of representations
- Co-design of learning experiences personalized to individual needs and preferences.

(Dede)

How can we best serve our clients?

In an article entitled 'Net Generation Students and Libraries,' Joan K. Lippincott suggests that we can best serve our clients by understanding them - both their strengths and weaknesses. She asks:

Why should libraries and librarians adapt their well-structured organizations and systems to the needs of students rather than insist that students learn about and adapt to existing library systems? The answer is that students have grown up in and will live in

a society rich in technology and digital information. By blending the technology skills and mindset that students have developed all their lives with the fruits of the academy, libraries can offer environments that resonate with Net Gen students while enriching their college education and lifelong learning capabilities.

Instead of forcing students to move backward, we must walk forward together. We must choose to continue to change and adapt.

The second change and challenge are systems and technologies.

Librarians have already dealt well with incredible change in both systems and technology. Our journey from card catalogues to microfiche to online, integrated catalogues to digital repositories has been kept interesting with an explosion of new tools relating not only to the infrastructure of library housekeeping but also our external systems of connection. In his article entitled, 'The Academic Culture and the IT Culture: Their Effect on Teaching and Scholarship,' Edward L. Ayers congratulates us:

Very real technological accomplishments have tended to become invisible because they have been so successful. If you had told people a decade ago that card catalogues would virtually disappear within ten years and would be replaced by our current information-management systems, they would not have believed you.\

This technological journey has not always been easy, however, nor will it be easy in the future. New technology is, by its very nature, 'really disruptive' (Jackson, S.A.), and disruption will require nothing less than the ongoing evolution of our species. It may be painful.

In Educause's *The Pocket Guide to U.S. Higher Education 2005*, a survey compiled by the UCLA Higher Education Research Institute examined the various sources of stress over the past two years as identified by full-time undergraduate faculty. The list of stresses was well populated with expected items such as the review or promotion process which was causing stress to 46.2% in 1999, increasing to 47.0% in 2002. Additionally, colleagues were inducing stress in colleagues at a rate of 55.9% in 1999, decreasing to 54.8% in 2002. Not surprisingly, research and publishing demands were causing stress to 50.2% in 1999, decreasing to 47.3% in 2002. But surpassing all the usual stress suspects—even the stress induced by increasing teaching loads—was 'keeping up with information technology' which was listed as causing stress in 67.2% in 1999, increasing to 69.3% in 2002 (*The Pocket Guide*).

Trying to keep on top of new systems and technologies is not the only problem; paying for the new systems and technologies is a very real problem in itself. In research published in the December 2004 edition of 'Roadmap: Tools for Navigating Complex Decisions,' a publication of the Educause Center for Applied Research, it was revealed that 'nearly two-thirds of respondents [to a July 2004 survey of American higher

education institutions] report that their budget is not increasing sufficiently to cover the costs of maintaining new technology' (Goldstein).

In the midst of this struggle to budget for and obtain updated systems and technology - not to mention trying to understand and actually use the new toys, which I will address later - we must recognise technology's true purpose. In an article entitled 'Of Icebergs, Ships, and Arrogant Captains,' Peter Smith steers us in the right direction:

Technology is part of the solution. Technology is transforming the capacity to support high-level learning anywhere, anytime, and for anyone. The traditional academic model is based on outdated assumptions about the use of time, space, and responsibility. Technology changes all that, permitting radically different uses of time and space and different allocations of responsibility, allowing for deeper and better learning for many more people. Technology can change not only the way we 'instruct' but also the way we manage and support teaching and learning. ...

Imagine if teachers could save thousands of hours in record-keeping time and could devote those hours instead to learning activities. Technology has already made this possible. Imagine if every learner in a school was assessed to determine how she or he learns best and if the results-a 'learning profile'-travelled with the learner so that each teacher could match pedagogy and curriculum to the learner. Technology has already made this possible. Imagine if teachers and students alike could dive deep into the Internet through multiple hotlinks to find instantaneous, vital information and to make real-life, constant applications of learning. Technology has already made this possible.

(Smith, P.)

As we embrace our new students, we must embrace the new technology that will allow us to effectively and efficiently educate them.

The third change and challenge is the nature of the scholarly communication process.

The scholarly communication process was once a complete and never-ending circle of library research, text writing, library publication; it both began and ended in the library. Now, emerging information communication technology has given us research options including e-science, e-research, e-collaboration, cyberinfrastructure and the grid which are only matched by writing options such as nonlinear formats and digital presentation, and publication options such as online publication and open source institutional repositories (O'Brien/Kobulnicky).

In a presentation entitled 'Distribution of Knowledge: Future Copying and Communication Needs,' Kate Sexton of the University of Sydney Library outlined trends further challenging universities and academic libraries. She included the

...greater use of integrated learning management systems linking multiple objects and format; [the] disaggregation of content from its original format or container such as a book, serial, video, etc.; concentration on microcontent; continued commercialisation of scholarly publishing; print publication [decreasing] and e-publication increasing; . . . increase in quality self-publishing; . . . rise of the institution repository-local online archive of the research output of a university including digital theses, articles by academic staff, research reports, etc; print on demand increasing . . . ; [and the] increase in digitisation projects particularly of specialised collections and e-reserves.

The future of scholarly publishing, it seems, is only limited by our imaginations and our abilities to embrace new technologies and techniques.

As yet another example of the changes occurring within the scholarly communication process, open source institution repositories are forcing scholars, universities, and libraries to adapt to change. In the article 'Pork Bellies and Silk Purses,' Paul Kobulnicky states that, 'a new economic model for the management of intellectual property is being defined by the concept of open-source institutional repositories.' Kobulnicky continues:

As the classic scholarly publication system collapses under the commodity model and as institutional resources are freed for other purposes, more institutional repositories will be created and made operational. As scholars use and gain confidence in the open-source institutional repository model of publishing, scholarship will be placed in the public domain and will be administered by scholarly communities and higher education institutions. Libraries will be the managers of this content, as they have managed content for so many generations.

As open-source is hailed as both the conquering victor and saviour of scholarly publishing, it is scholars, universities and librarians that are now left to implement the new regime.

To these forceful yet seemingly inevitable changes to the scholarly communication process, like open-source or any of the e-research or e-publishing options, universities must develop an equitable and sustainable response. Kate Wittenberg, in her article 'Collaborators in Communication: Publishers, Scholars, and Information Technologists,' looks at the problem:

As scholars reconceive their work to encompass IT, their institutions will need to rethink the process of tenure and promotion decisions. If authors of scholarly work that makes use of the digital environment do not begin to receive the same academic recognition as do their colleagues who publish in print, there will be far fewer incentives for scholars to pursue this kind of work. In this case, the potential impact of IT on scholarly publishing may well be diminished in terms of the content being created.

Universities must encourage and reward staff achievements relating to their current opportunities and challenges rather than continue to serve the memory of how things used to be done.

Libraries, similarly, must embrace the new role thrust upon them by the many changes in scholarly publication. In 'E Research: An Imperative for Strengthening Institutional Partnerships,' Linda O'Brien insists that it must be librarians rather than information technology professionals managing the new cyberinfrastructure. She states:

...linking people to resources-researchers to scholarly materials-has been the role of the librarian for centuries. Libraries have traditionally been central to the research endeavour, managing and preserving scholarly resources, increasingly in digital form, and making these resources accessible to the researcher, often through collaboration and partnerships with other libraries. Hence, libraries have know-how not only in managing, making accessible, and preserving scholarly resources but also in forming federations and collaborations to share published scholarly work.

In the same article, O'Brien comes to a haunting conclusion; she says, 'Libraries may even risk fading from existence if they don't respond effectively to the changing environment.' If universities and libraries are to survive as institutions, again, we must continue to adapt.

The fourth change and challenge is the learning environment.

The learning environment in universities and research libraries is also undergoing incredible change as we attempt to provide the appropriate resources for teaching and learning, research and development, and the newer challenges emerging from the concept of life-long learning. To continue meeting the developing requirements and requests of students and scholars, tertiary education providers and libraries must examine our current infrastructure, both physical and technological. Even our mission statements and organizational charts may be effected by the evolving tastes and abilities of our new students and the learning environment they require and create (Dede).

Increasingly, our institutions will need to reflect the 'effect on civilization' the new media and technology is creating (Dede). Our teaching and learning will also need to respond to these social changes. Chris Dede's article, 'Planning for Neomillennial Learning Styles,' outlines what these new generation students will expect from the new curriculum:

- Co-design: Developing learning experiences students can personalize
- Co-instruction: Utilizing knowledge sharing among students as a major source of content and pedagogy
- Guided learning-by-doing pedagogies: Infusing care-based participator simulations into presentational/assimilative instruction

- Assessment beyond tests and papers: Evaluating collaborative, nonlinear, associational webs of representations; utilizing peer-developed and peer-rated forms of assessment; using student-initiated assessments to provide formative feedback on faculty effectiveness.

To remain competitive and effective in the new learning environment, both tertiary education providers and academic libraries must investigate the different learning styles represented in our growing and changing client base (Dede).

We must remain aware, however, that:

Some of these shifts are controversial for many faculty, and all involve ‘unlearning’ almost unconscious beliefs, assumptions, and values about the nature of teaching, learning, and the academy. In addition to mastering the intellectual/technical dimensions involved, professional development that requires unlearning necessitates high levels of emotional/social support. As the nature of students alters, instructors must themselves experience mediated immersion and develop neo-millennial learning styles to continue effective teaching.

(Dede)

This concept of ‘unlearning’ leads me to the last-and possibly the greatest-challenge that universities and libraries face.

The fifth change and challenge is our profession’s response to change.

Individually and collectively, we have endured lots of change, but perhaps our change-as a profession at large-has not kept pace. Our capacity for flexibility and innovation has at times been limited, possible because of the inherent conservativeness of the library profession. Like the institutions we serve, we tend to be cautious and traditional in our response to change.

The professional of librarianship to varying degrees largely shares the culture and characteristics of ‘the academy’ - a culture which tends to be cautious and traditional. While the emerging culture and characteristics of the new disciplines, such as information communication technology, put us in a situation of a culture clash.

Competing Characteristics	
<i>Information Technology</i>	<i>The Academy</i>
everywhere and nowhere	strongly identified with a very specific location
brash young industry	a self-consciously ancient institution
highly unstable	the most stable institution across the world

new competitors continually emerge	impossible to break into the top ranks
possibility of great profits	no possibility of profit at all
work performed by anonymous teams	centered on scholarly stars
obsolescence built in	designed to deny obsolescence
virtually instant results necessary	patience a central virtue
designed to be transparent	opaque and labyrinthine

(Ayers 54)

But this clash between the culture of information technology and the culture of the academy is only part of our slow response to innovation.

Earlier, I spoke about our emerging client base as being composed of ‘digital natives.’ Marc Presky answers the question,

‘So what does that make the rest of us?’ Those of us who were not born into the digital world but have, at some later point in our lives, become fascinated by and adopted many or most aspects of the new technology are, and always will be compared to them.

At best, we are ‘Digital Immigrants.’ Presky expands the metaphor:

As Digital Immigrants learn-like all immigrants, some better than others-to adapt to their environment, they always retain, to some degree, their ‘accent,’ that is, their foot in the past. The ‘digital immigrant accent’ can be seen in such things as turning to the Internet for information second rather than first, or in reading the manual for a program rather than assuming that the program itself will teach us to use it. Today’s older folk were ‘socialized’ differently from their kids, and are now in the process of learning a new language.

So, we must challenge our traditional, cautious culture; our roles, systems, technologies, even language is changing. We must change our attitudes and skill sets. We must change our ideas and misconceptions about our educational capacity and collaborate to take our profession forward.

Collaboration: Future opportunities for action

Collaboration must be the basis for reforming our profession and in this context the future relationship between various categories of libraries (academic, research and public libraries) will be critical.

Collaboration may well be the key to the survival of our species - the library profession as we would call it today. Together, we must look beyond the political and operational

context and focus on collaborative projects and programs to evolve the culture and education of our profession.

Why should we collaborate?

According to a report published in January 2006 by ALIA Employment, 'Australia's Library Labour Market,' the vital statistics of our profession are as follows:

Australia has almost 10 million employees. The Australian Bureau of Statistics and Department of Employment classify nearly 29,000 as library workers. 13,000 are librarians; 7,300 are library assistants; 5,000 work as library technicians; and 3,500 are archivists or intelligence professionals.

(Teece)

Working in a library is ranked as a 'medium sized occupation.' This 'medium sized occupation,' however, is rapidly aging:

Librarians are markedly older than the average for Australian occupations. 60% are 45 or older, compared to 35% in the total workforce. 86% are 35 or more ([compared to] 55% [in the total workforce]). Only 14% are under 35 ([compared to] 42 per cent [in the total workforce]). The median age is 46.

(Teece)

Additionally, the rate of librarian retirement is much higher than the rate of new entrants into the profession.

The problem doesn't exist just in Australia. Canada's official statistics are also grim:

One quarter of professional and paraprofessional library staff is over the age of 55, which is more than double (11%) of the national workforce. Also surprising, is that almost half of the librarians in Canada are over the age of 50 and thus are expected to retire in the next decade or so. If you assume an average retirement age of 60 years old, 25% will retire by 2009, and 48% by 2014.

(Summary)

Of the 11,700 Canadian librarians, it is predicted that 4,560 will retire within ten years while only 3,250 new librarians will be available to take their places (Ingles). Additionally, two-fifths of current librarians and three-tenths of current library paraprofessionals are predicted to retire by 2014 (Ingles).

Numbers from the United States of America echo the aging problem:

The Bureau of Labor Statistics (BLS) placed librarians seventh amongst occupations with the highest percentage of workers aged 45 years and older in 1988 (Dohm, 2000). 46.4% of librarians are expected to leave the workforce during the period 1998-2008. Anticipated departures result in anticipated replacement needs for 50,000 librarians.'

(Griffiths)

What is the statistical bottom line? We are running out of librarians.

How should we collaborate?

For those of us left in the profession, collaborative research and development is the key to our future. Workforce analysis, especially around public library and academic library personnel, is needed. We also need to undertake a current workforce skills audit and plan recruitment and education strategies for the library workforce of the 21st century. Collaborative projects of these types are already underway.

The Library Board of Victoria and Victorian Public Library Network have taken some initial steps through the development of their *Framework for Collaborative Action*, which underpins the Library Board of Victoria's State-wide Library Development Projects. One current project is focussed on 'Future Leadership and Workforce Sustainability'.

Meanwhile, our international colleagues also have ambitious projects in progress. Dr José-Marie Griffiths, Dean and a Professor at the School of Information and Library Science (SILS), at the University of Carolina - Chapel Hill has undertaken research regarding the future of librarians and other information professionals in the workforce. Her work has resulted in an interesting forecast of our vocation including presentations entitled 'Out of the Stacks and Into the Jungle: The Future of Knowledge Professionals' and 'Embedded Librarians: Knowledge Professionals at the Front Lines of the Information Age.'

In Canada, Dr Ernie Ingles and colleagues have published the 'The Future of Human Resources in Canadian Libraries' also known as the 8Rs. The 8Rs study is a collaboration amongst the Canadian government, University of Alberta, and library associations, libraries, and universities nation-wide. As a result of this comprehensive study on the condition of human resources within libraries across Canada, the 8Rs discovered to be essential to the ongoing well-being of Canadian libraries are 'recruitment, retirement, retention, rejuvenation, repatriation, re-accreditation, remuneration, and restructuring' (Ingles). Collaborations such as the various current Australian, American and Canadian projects are an excellent start. Opportunities for collective effort already exist, and we must make more.

Together, we must position ourselves to succeed in this brave new world. To survive as a species, we must remarket librarianship to attract new blood and re-educate current

librarians and paraprofessionals to lead. I've often envisioned a hip, action-packed television series revealing what librarians truly are: switched-on, dynamic managers rather than bookworms surrounded by dusty book piles. Just look what TV programs like *Silent Witness* did to the numbers lining up to enrol in forensic science courses at universities.

The Canadian 8Rs study suggests that we should:

Look to see how recruitment to the profession can be improved upon. A coalition of libraries, library associations and library schools must act to promote both a current view and a vision for the profession-one that expresses the potential of librarianship as a career of choice and is attractive enough to capture students of high quality and commitment to the practice of a dynamic and changing profession. In looking to improve recruitment, the need for diversity within the profession must be of paramount concern.'

(Ingles)

Eliminating the negative and outdated stereotypes of our profession and replacing them with positive and contemporary images and examples will help bring new blood to the library.

Our recruiting and education programs must provide the opportunity for prospective librarians to see the true career path of a librarian. The Canadian 8Rs study emphasises that:

Efforts to attract individuals to the profession should not only highlight the literacy, learning, and public service values of librarianship, but also the fact that most librarian jobs will eventually involve some form of supervising and managing.

(Ingles)

We need a new national, cross-sectional educational system (including lifelong learning) to replace the currently limited and fundamentally outmoded professional training program. Within five years, a significant, noticeable change could be achieved in the entry levels of librarianship by focusing on attracting the right candidates with the right approach.

The recently announced South Australian model is more than a step in the right direction. A Chair of Business Information Management has been established at the University of South Australia through a collaborative venture led by the university itself, the State Library of South Australia, State Records South Australia, and the Japanese company Fuji Xerox. Claimed as a world first, the aim of the position is to develop an 'innovative suite of university programs to educate and train new information

professionals' ('South Australian's Create World First'). Both undergraduate and postgraduate programs focusing on marketing, project management, customer service and leadership skills will be offered along with applied research. The program aims to attract a broad range of information services professionals including 'technically skilled records managers, archivists, librarians, internet/intranet coordinators, information systems designers and administrators, as well as knowledge and information officers.' Existing relationships amongst the organisations provided the framework for this innovative collaboration. The University of South Australia's Chair of Business Information Management is a great example of an inventive answer to our emerging questions.

We must not only look outward, however, but also inward to address the current and future challenges of librarianship. To effectively re-educate and positively reposition those of us currently in the profession, we must take a step forward in collaboration and create a flexible professional development system that is part of a serious, adequately-resourced, well-planned attack. Opportunities for advancement, including attaining educational requirements and improving occupational competencies, will encourage current paraprofessionals to become librarians, groom current librarians to undertake leadership roles, and advance the knowledge and ability of current high-level managers (Ingles).

In addition, the impending retirement crush will need to be addressed through appropriate planning:

Retirees take with them knowledge and skills that have been acquired through years of experience. Libraries will have to judge how critical this loss will be and how to ameliorate the effects. Succession planning will have to consider graduated retirement plans, mentorship programs, internships and other schemes that allow transfer of essential knowledge and skills.

(Ingles)

Only through cooperation both within and beyond the library walls will we be able to maintain the high level of service and professionalism that has been achieved by generations of librarians.

What if we don't collaborate?

I'd like to conclude with the following quotation again from 'Of Icebergs, Ships, and Arrogant Captains' by Peter Smith:

'Consider the Titanic as a metaphor. It's a dramatic image, maybe a little much, but I think it fits. What is the greatest single problem associated with the Titanic? An arrogant captain? The iceberg? A longer view suggests that even if the Titanic had survived its maiden voyage, the ship was doomed. The iceberg, the captain, and the disaster only

confused the situation. The real problem facing the greatest cruise ship ever built was the airplane. The seeds of destruction for the ocean-travel industry had been sown nearly a decade earlier, in Kitty Hawk. Cruise ships could not compete, and attempts to make them competitive ultimately failed. . . . Economic and social icebergs challenge our course. We must anticipate them, and we must navigate dexterously to survive. But the icebergs we face aren't our long-term problem. The greater risk is that the potential of our ships, because of their basic design, is limited and therefore fundamentally outmoded. Our colleges and universities are being eclipsed by new need, new knowledge, and new capacity.

Expanding this metaphor, what is the library's or the librarian's iceberg? Is it the increasing demands and skills of our client base or our continually advancing systems and technologies? Is it the nature of the scholarly communication process or the changing learning environment? All of these are legitimate concerns and significant changes in and challenges to our profession, both now and in the future. But the lethal iceberg looming in front of the good ship library is our profession's response to change, our hesitant culture and cautious attitude.

The seeds of destruction were not sown when the computer was invented or when computers around the world were linked by the internet, just as books were not destroyed upon the invention of the printing press. When we lost our focus on educating and training, when we stopped attracting new blood and developing exciting career paths, when we resisted change and rejected educational innovation, that is when we entered the path of the iceberg. The greatest threat to librarianship is our own attitude towards change. What if libraries survive but the workforce is dead? If we are unwilling to collaboratively evolve, if we are unwilling to run the libraries, someone else will step forward. Our real problem, our iceberg, is that the cruise ship of the librarian profession may be superseded and replaced by flying service providers. Only together, through a collaborative approach to education and training for both new entrants and old sailors in the library, can we anticipate and navigate long-term to survive.

Works cited

- Aviles, Kitzzy, et al. 'If Higher Education Listened to Me.' *Educause Review*. September/October 2005: 17 - 28.
- Ayers, Edward L.. 'The Academic Culture and the IT Culture: Their Effect on Teaching and Scholarship.' *Educause Review*. November/December 2004: 48 - 62.
- Borreson Caruso, Judith. 'ECAR Study of Students and Information Technology 2004: Convenience, Connection, and Control.' *Roadmap: Tools for Navigating Complex Decisions*. Educause Center for Applied Research: October 2004.
- Dede, Chris. 'Planning for Neomillennial Learning Styles.' *Educause Quarterly*. No. 1. 2005: 7 - 12.
- Educause. *The Pocket Guide to U.S. Higher Education 2005*. Washington, D.C.: 2005.
- Goldstein, Philip J.. 'Information Technology Funding in Higher Education.'

Roadmap: Tools for Navigating Complex Decisions. Educause Center for Applied Research: December 2004.

Griffiths, Jose-Marie, 'Out of the Stacks and Into the Jungle: The Future of Knowledge Professionals.' LAUNC-CH (Librarians' Association at University of North Carolina - Chapel Hill). 14 March 2005.
<http://sils.unc.edu/griffiths/documents/OutoftheStacks2005.pdf>.

Ingles, Ernie, et al. 'The Future of Human Resources in Canadian Libraries.' 8Rs Canadian Library Human Resource Study. February 2005.
<http://www.ls.ualberta.ca/8rs/8RsFutureofHRLibraries.pdf>.

Jackson, Shirley Ann. 'Ahead of the Curve: Future Shifts in Higher Education.' *Educause Review*. January/February 2004: 10 - 18.

Kobulnicky, Paul. 'Pork Bellies and Silk Purses.' *Educause Review*. May/June 2004: 10-11.

Library Board of Victoria and Victorian Public Library Network. 'Framework for Collaborative Action: Statewide Library Development Project on Future Leadership and Workforce Sustainability.' June 2004.
http://www.slv.vic.gov.au/pdfs/aboutus/lbv_vpln.pdf

Lippincott, Joan K.. 'Net Generation Students and Libraries.' *Educause Review*. March/April 2004: 56 - 66.

O'Brien, Linda. 'E Research: An Imperative for Strengthening Institutional Partnerships.' *Educause Review*. November/December 2005: 65 - 76.

Prensky, Marc. 'Digital Natives, Digital Immigrants.' *On the Horizon*. (NCB University Press, Vol. 9, No 5, October 2001).

Sexton, Kate. 'Distribution of Knowledge: Future Copying and Communication Needs.' AVCC Copyright Convention: 30 November 2004.

Smith, Peter. 'Of Icebergs, Ships, and Arrogant Captains'. *Educause Review*. May/June 2004: 48 - 58.

'South Australians Create World First.' *Australian Library News*. 213. 2 February 2006.

State Library of Victoria. 'slv21 - Creating the Library of the 21st Century.' Draft Position Paper. October 2005.

'Summary of the 8Rs Report: 'The Future of Human Resources in Canadian Libraries.'" 5 August 2005.
<http://www.lib.sk.ca/staff/issues/futurehrlib.pdf>

Teece, Phil. 'Australia's Library Labour Market.' ALIA Employment. 24 January 2006.
<http://alia.org.au/employment/labour.market/>

Voloudakis, John. 'Hitting a Moving Target: IT Strategy in a Real-Time World.' *Educause Review*. March/April 2005: 44 -55.

Walsh Veronikas, Susan and Michael F. Shaughnessy. 'Teaching and Learning in a Hybrid World: An Interview with Carol Twigg.' *Educause Review*. July/August 2004: 51 - 62.

Welsman, Sandra J.. 'Enterprise the Key to the Future.' *The Australian*. 11 January 2006: 30.

Wittenberg, Kate. 'Collaborators in Communication: Publishers, Scholars, and

Information Technologists.' *Educause Review*. November/December 2004: 65 - 76.
Yerbury, Di. 'Ten Years: Looking Back - A Decade of Change and Challenges.' UTS
Sydney. 9 November 2005.

Bibliography

Gandel, Paul B.. et al. 'The 'Weariness of the Flesh': Reflections on the Life of the Mind in an Era of Abundance.' *Educause Review*. March/April 2004: 40 - 51.
Greenstein, Daniel. 'Research Libraries' Costs of Doing Business (and Strategies for Avoiding Them).' *Educause Review*. September/October 2004: 72 -73.
Griffiths, Jose-Marie, 'Embedded Librarians: Knowledge Professionals at the Front Lines of the Information Age.' Keynote Address. Iowa Library Association Annual Conference, 'Moving Forward Together: Communication, Collaboration, Cohesion.' Dubuque, Iowa. 21 October 2008.
<http://sils.unc.edu/griffiths/documents/iowa2005Keynote.pdf>.
Griffiths, Jose-Marie, 'Options and Opportunities: The Future of Librarians in the Workforce.' Iowa Library Association Annual Conference, 'Moving Forward Together: Communication, Collaboration, Cohesion.' Dubuque, Iowa. 21 October 2008.
<http://sils.unc.edu/griffiths/documents/iowaWorkforce102105.pdf>.
Hawkins, Brian L.. 'We've Got to Work Collaboratively!' *Educause Review*. January/February 2005: 68.
Jackson, Gregory A.. 'E Pluribus Unum.' *Educause Review*. January/February 2004: 56 - 57.
Keiser, John H.. 'Working Smarter, Not Harder.' *Educause Review*. July/August 2004: 8-9.
Luker, Mark A.. 'A Lifetime Burning in Every Moment: An Interview with Kenneth J. Klingenstein.' *Educause Review*. January/February 2004: 20 - 26.
Smith, Abby. 'When Bigger Is Not Better.' *Educause Review*. January/February 2004: 52 - 53.

Transcript from the Libraries & Learning session of the Library of the 21st Century Symposium, State Library of Victoria, Thursday 23 February, 2006