LIBRARY AND INFORMATION SERVICES

The Future of the Profession
Themes and scenarios 2025

Discussion paper, 1 May 2013
INTRODUCTION

DISCUSSION PAPER FORMAT

All our members want to know what the future holds for library and information services. Of course, it is impossible to predict in exact terms, but we have used global trends, early indicators and futurist thinking to develop themes which can guide our discussion about where we might be headed.

For the purpose of this discussion paper, we have looked at the broad role of library and information services, and specific circumstances relating to school, public, academic and special libraries, and collecting institutions.

We have begun by looking at how we have arrived at this point (timeline) and our current situation. We have then described the futurists’ view of the world and looked at how this might impact on our members. From this, we have devised three themes, which provide quite different scenarios. We have been deliberately provocative.

PURPOSE

The purpose of this paper is to promote discussion across the sector between library leaders, information service providers, vendors, practitioners, students, commentators, colleagues in Australia and internationally – anyone and everyone with an interest in the field.

This discussion paper is a work in progress. We have set out a proposition based on our findings, now we would like to hear what you think – do you agree with our three themes, or do you think there are further alternatives we need to explore? Do you think our scenarios have merit or are there other outcomes that you feel are more likely?

- We will be asking social and political commentators, technology experts, corporate strategists and other top flight thinkers to tell us what they think about our visions of the future.

- The 2013 ALIA National Advisory Congress will see a series of two-hour workshops held in every capital city around Australia between August and October to talk about the Future of the Profession. The workshops will be based on this paper, published on 1 May, and the feedback generated in the intervening months.

- There will be a Future of the Profession Summit in Sydney in October 2013, at which we will present the outcomes of the various discussions of the previous six months. The event will provide the opportunity for library leaders to define what our public-facing position should be on the future of the profession and how this should inform ALIA’s strategies, policies and activities in 2014 and beyond.

You can comment now, and at any time through to the end of October 2013. Become a wiki editor http://aliafutures.wikispaces.com/home, email advocacy@alia.org.au or join the discussion on ALIA’s Facebook page and through Twitter #aliafutures.
EXECUTIVE SUMMARY

OVERVIEW

The Future of the Profession is an ALIA Board project for 2013. This discussion paper has been put together to spark comment and debate. The feedback we receive through various fora will help us create a final document towards the end of the year. The findings of this project will enable us to review the strategic direction of the Association and develop our new strategic plan for 2015.

THEMES

Having looked at the historic and current situation relating to library and information services, and freely-available futurist thinking, we have developed scenarios for school, public, university and TAFE, and special libraries, and collecting institutions under three themes:

- Convergence
- Connection
- The golden age of information

CONVERGENCE

Convergence is an efficiency model. Generally, it means fewer jobs but the positions that are available require people with significant skills.

CONNECTION

Connection is good for libraries, it plays to our strengths. In this environment, libraries thrive, although library and information professionals have to step outside their comfort zone.

THE GOLDEN AGE OF INFORMATION

The golden age of information is coming, the question is whether or not today’s library and information professionals can make it their own. If we can, this era offers highly attractive opportunities for the profession and it opens up the possibility of many more of our members occupying senior positions in government, not-for-profit and commercial enterprises.
LIBRARY AND INFORMATION TIMELINE

In order to assess the future, we need to understand where we have come from. Originally, libraries were the preserve of the aristocracy. Today, libraries are designed for universal access. Over the last 4000 years, libraries have moved from ‘exclusive’ to ‘inclusive’, and the role of the library and information professional has expanded from the confines of collection management and preservation to encompass many other workflows, including knowledge management, information retrieval, search, IT and learning support, and program and event management.

EARLY HISTORY

c2400 BC  First library at Ebla, Syria – collection of 17,000 clay tablets
Libraries are the domain of scholars, priests and princes

1455  Johann Gutenberg produces the Gutenberg Bible
Printing technology enables mass production of books

1760-1840  Industrial Revolution and the rise of the middle class
Books begin to find their way into private homes

1800 – 1949

1827  Van Diemen’s Land Mechanics’ Institute is founded in Hobart
Lending libraries linked with adult education are established

1840  New South Wales Parliamentary Library established
First government library in Australia

1852  Appointment of the first librarian at the University of Sydney
Start of academic libraries in Australia

1902  First Carnegie lending library in Australia, also in Hobart
Spread of lending libraries across Australia

1936  First Penguin paperbacks made available for sixpence in the UK
Books begin to become affordable for more people

1939  Schooling for 6-15-year-olds is compulsory in most parts of Australia
Literacy and learning are key items on the government agenda

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1 http://www.historyfiles.co.uk/KingListsMiddEast/SyriaEbla.htm
2 http://www.bl.uk/treasures/gutenberg/bibleyears.html
1950 – 1999

1976  Electronic journals under development
       Academic and special libraries move into electronic publications

1985  New York Public Library catalogue cards replaced by terminals
       Public access computers in libraries

1995  Amazon launched
       Cheaper books ordered online, delivered to your door

1998  Google incorporated
       People find an easy way to navigate information on the internet

2000 – 2009

2002  Launch of Budapest Open Access Initiative
       The open access movement gains momentum

2003  OverDrive launches download service for libraries
       Ebooks, audiobooks and other digital content become available in libraries

2003  All university libraries establish repositories
       Supporting best practice institutional digital repositories

2004  Facebook founded
       Social media provides a new way for people to interact with each other

2007  Launch of the first generation iPhone and the Kindle
       A powerful computer in your pocket and ebook readers become mainstream

2008  Launch of Strategic Roadmap for Australian Research Infrastructure
       New approach to national research facilities and linkages

2009  Building the Education Revolution investment by federal government
       $16.2 billion for improved school facilities, including new school libraries

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3 http://informationr.net/ir/2-1/paper9a.html
4 http://www.libraryjournal.com/article/C6726781.html
5 http://www.time.com/time/business/article/0,8599,2004089,00.html
6 http://www.google.com.au/about/company/history/
7 http://www.opensocietyfoundations.org/openaccess/read
8 http://www.overdrive.com/company/who-we-are/history/
10 http://www.guardian.co.uk/technology/2007/jul/25/media.newmedia
11 http://apple-history.com/iphone
12 http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-corporateTimeline
2010 – PRESENT DAY

2010  Launch of the first generation iPad tablet\(^\text{14}\)
      Touch screen technology for all kinds of entertainment, including reading

2010  Launch of Trove discovery service by the National Library of Australia\(^\text{15}\)
      Libraries make local history discoverable on the internet

2012  Public libraries in South Australia commit to one library management system\(^\text{16}\)
      South Australians will be able to use their card at any library in the state

\(^{14}\) http://apple-history.com/ipad
INVESTMENT AND GROWTH

Between 1939 and 1988, the basic framework for today’s libraries was established. Library Acts by state and territory:\(^7\):

- 1939 Library Act, New South Wales
- 1951 Library Board of Western Australia Act
- 1982 Libraries Act, South Australia
- 1984 Libraries Act, Tasmania
- 1988 Libraries Act, Queensland
- 1988 Libraries Act, Victoria

States and territories grew at their own pace, putting in place library buildings, systems and technologies. Today, we have approximately:\(^8\):

- 9300 school libraries (9435 primary/secondary schools in 2011)
- 1620 public libraries (including joint use with schools)
- 430 academic libraries (university and TAFE)
- 2200 special libraries (government, health, law, corporate and other disciplines)
- 8 major collecting institutions (national, state and territory libraries)

Some 27,700\(^9\) people describe themselves as library and information professionals or as working in the library and information sector.

The number of library users has grown over time – primarily a factor of population growth. We do not have figures available for every sector, but as examples:

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2011</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>School student population</td>
<td>3,268,177</td>
<td>3,541,809</td>
<td>+8.4%</td>
</tr>
<tr>
<td>Registered public library members</td>
<td>9,509,174</td>
<td>10,191,256</td>
<td>+7.2%</td>
</tr>
<tr>
<td>University student population</td>
<td>845,727</td>
<td>1,256,645</td>
<td>+48.6%</td>
</tr>
<tr>
<td>Population growth</td>
<td>19,413,240</td>
<td>22,620,600</td>
<td>+16.5%</td>
</tr>
</tbody>
</table>

\(^7\) [http://www.austlii.edu.au/](http://www.austlii.edu.au/)
\(^8\) ALIA estimates
\(^9\) ALIA estimate

Investment continues. For example, in the last three years, we have seen:

School libraries  Building the Education Revolution investment in new school library buildings across Australia

Public libraries  The federal government economic stimulus package resulting in new and improved public libraries, with the prospect of further work through the Regional Development Australia Fund; capital cities (Perth and Melbourne) are investing in new, high profile civic spaces, at the heart of which will be flagship public libraries

Academic libraries  Universities continuing to invest in their libraries. The $94 million new Macquarie University Library is the first in Australia to have an automated storage and retrieval system27

Collecting institutions  The State Library of NSW being awarded $32.6 million by its state government to digitise collections28

At the same time, special libraries in government, health, law, corporate and other settings have seen their footprints reduced, as traditional library collections have been replaced by online services, often for users based in other locations.

Change is a constant factor for library and information professionals. On a positive front, it is being driven by new technologies, new pedagogies, and by new services to meet the needs of evolving communities. On a less positive front, it is also driven by the need for institutions and organisations to reduce costs.

27 http://www.library.mq.edu.au/newlibrary/glance.html
EQUITY OF ACCESS

The libraries of the last 200 years have included a strong thread of social justice. They have been based on the notion of freedom of access to information and resources (FAIR) for everyone. ALIA’s core values reflect our members’ belief in:

- Promotion of the free flow of information and ideas through open access to recorded knowledge, information and creative works
- Connection of people and ideas
- Commitment to literacy, information literacy and learning
- Respect for the diversity and individuality of all people
- Preservation of the human record.

People challenge the future validity of libraries, saying that everyone will be able to access free content on the internet, meeting the requirement for equity and social justice, and making our role redundant. However, this is not supported by the evidence.

EVERYTHING FREE ON THE INTERNET

The assumption is that (a) everything will be available on the internet, (b) free content on the internet will remain free, and the information added in future will be free too (c) there will be easy ways of searching the internet, again for free. There is significant evidence to the contrary:

(a) Everything is not available on the internet. As an example, the Google Books project, a partnership with major university libraries around the world, began in 2006. In March 2012, the number of scanned books passed the 20 million mark. However, the process has slowed down and there are still millions of volumes which are only available in print. Google’s director of external affairs Peter Barron, quoted in The Guardian, in June 2011, ‘Sometimes we make the mistake of thinking that when we go online to research something, we think everything will be there. Of course that’s not the case at all because so much of the world’s information and knowledge is tied up in books.’

(b) Content producers who have been willing to provide information free of charge on the internet are now looking at ways of charging users. For example, in 2010 News Corporation made the move into charging for online newspapers and in 2012 Fairfax Media announced its intention to erect paywalls.

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29 http://chronicle.com/article/Google-Begins-to-Scale-Back/131109/
30 http://www.guardian.co.uk/books/2011/jun/20/british-library-google-digitisation-hinos
31 http://www.abc.net.au/pm/content/2010/s2943575.htm
(c) When people say ‘we can just Google it’ they’re assuming Google, a company that has been around for less than 15 years, will be in business for many years to come. Eric Jackson writing for Forbes in April 2012, said, ‘We think of Google and Facebook as Web gorillas. They’ll be around forever. Yet, with the rate that the tech world is moving these days, there are good reasons to think both might be gone completely in five to eight years. Not bankrupt gone, but MySpace gone.’33

Instead of affordability improving over time, the evidence suggests a brief heyday of free online content, followed by a return to paid-for content. We have mapped this as a trend line (figure 1). Our proposition is that access to information will be within the reach of the majority of the population in future, but that people will not be able to afford to purchase everything they want or need, returning to the situation pre-1990.

Fig 1: Trend in cost of access to information (print/online)

**AFFORDABILITY OF BOOKS**

In Australia, standard price points for popular new trade paperbacks are $24.95 and $32.95, putting new books outside the reach of the 1.7 million households experiencing low income34. The move from print to ebooks will bring prices down but not by as much as readers may hope. Mokoto Rich, writing in the New York Times in 2010, described the economics of print and ebooks and concluded, ‘Certainly, publishers argue that it would be difficult to sustain a vibrant business on much lower prices. Margins would be squeezed, and it would become more difficult to nurture new authors. In fact, the industry is based on the understanding that as much as 70% of the books published will make little or no money at all for the publisher once costs are paid.’35

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35 http://www.nytimes.com/2010/03/01/business/media/01ebooks.html?pagewanted=1&_r=0&adxnnlx=1304798706-MVRJyVTN1kMHo6107B/DA
The role of public, school, academic and special libraries has expanded over time – figure 2 shows the trend line. They have always connected people with information and ideas:

- As collecting institutions, acquiring, managing and preserving books, manuscripts, documents and digital content
- As providers of shared resources for research and study, negotiating with content owners to achieve the best terms for their organisations; managing collections; making them accessible (24/7) and discoverable
- As providers of reading materials for people who cannot afford to buy and store all the resources they need.

Latterly, we have seen new roles for the library physical spaces:

- As IT hubs and environments that create information-based opportunities, for example supporting job seekers by providing links to Seek, newspaper job ads, and providing the PCs to allow for online applications
- As environments for self-directed learning for all ages, in public libraries, school libraries, academic libraries, some special libraries
- As community meeting places and learning commons.

There is no reason to suppose that libraries will stop evolving and expanding their services. In a digital environment, how collections are acquired, managed and made discoverable will change. For example, cataloguing at an individual library level may no longer be required, but there will still be a requirement at some point in the supply chain for ebooks and e-resources to be organised and coded.
Libraries have developed to encompass five elements:

- Content (books and other materials) – established role
- Expert guidance (library staff) – established role
- Technology – developed over the last 20 years
- Programs and events – developed over the last 20 years
- Physical spaces – there are further opportunities to explore with exciting new libraries

If we look at the role of library and information professionals, traditional skills are around:

- Acquiring, managing, preserving content
- Access and discoverability, contract negotiation
- The ‘search’ in research

If we look at other roles within today’s library and information services:

- IT expertise – informal help desk
- Learning support – early childhood, research assistants, teacher librarians
- Event and venue management – libraries as meeting places, study spaces, opportunities for group learning

And roles that library and information professionals have the skills and aptitude to fulfil:

- Information and knowledge management
- Convergence with archivists and record managers

![Fig 3: Additions to workflow](image)
QUESTIONS

- There will always be a need for library and information professionals – but how many? Will it continue to be a viable option for the 27,700 people who currently describe themselves as working in the library and information sector and the 5,500 members of ALIA – qualified librarians and library technicians, professionals from other disciplines, the institutions that employ them?

- What will be the new elements of the role and what elements will we lose over time?

- How will our core skills and knowledge need to adapt over time to accommodate these changes?

ALIA CORE SKILLS AND KNOWLEDGE

- Knowledge of the broad context of the information environment
- Information seeking
- Information infrastructure
- Information organisation
- Information access
- Information services, sources and products
- Information literacy education
- Generation of knowledge

In addition, generic skills and attributes include: effective communication; professional ethical standards and social responsibility; project management; critical, reflective, and creative thinking; problem-solving; business acumen; ability to build partnerships and alliances; effective team relationship; self management; commitment to life-long learning; relevant ICT and technology application skills; appropriate pedagogical information literacy.
THE FUTURISTS’ VIEW OF THE WORLD

There is a fairly consistent view of what the world will look like in 2050. The detail may be interpreted differently, but overall, there is agreement that there will be more people, fewer resources and an even greater reliance on technology.

By 2056, the Australian Bureau of Statistics estimates that Australia’s population will be between 31 and 43 million, pleasing economists, who say this is essential for critical mass, dismaying environmentalists who say the continent cannot support this number of people. Innovation will be needed to make our nation sustainable.

PEOPLE

The world’s population will have topped 9 billion. The population of Asia will have increased by more than half a billion people by 2050, and China and India will have taken over from the US as the driving force behind the world economy. Australia will have realigned itself to take advantage of its proximity to Asia.

Across the Earth, global warming will threaten the survival of some areas, such as the Maldives, while other, previously uninhabitable ice-bound regions will become viable for human habitation. The uncertainty and opportunity will lead to mass migration and increased diversity of populations.

ENVIRONMENT

Climate change will mean more deaths from starvation and disease in the poorest countries. In Australia there will be more heat-related deaths and deaths from drowning due to flooding.

Cities will be built or converted to sustainable principles – carbon neutral, zero waste – with vertical farms using genetically modified crops to produce food for local consumption, greatly reducing ‘food miles’.

RESOURCES

The high price of fuel, the scarcity of freshwater, and warmer, more extreme weather leading to lower crop yields will have a major impact on how we live. People will need to cluster together in towns and cities to make best use of the infrastructure, and attractive civic spaces in between the tower blocks of apartments will be important to promote a sense of wellbeing.

TRANSPORT AND COMMUNICATION

There will be driverless cars running on hybrid fuels and high speed public transport networks, but travel will be expensive and this will have a significant impact on our social, study and work lives. Instead of leaving our homes and local communities, people will use virtual means to connect with each other.

Viable alternatives to fossil fuels will have been developed using natural resources – sun, wind, water, algae – wind turbines and solar updraft towers will be features of the landscape.

HEALTH

Medical advances, especially in understanding how to treat illnesses through gene therapy, will mean we are living longer, healthier lives. Previously terminal diseases will be manageable if not curable. By 2056, it is estimated that one in four people living in Australia will be over the age of 65.38

TECHNOLOGY

Advances in technology – and nanotechnology – will mean new types of materials and new ways of making things. It will be possible to transform a simple glass window into an interactive screen. Infinite computer power will open up new horizons. Artificial intelligence will no longer be science fiction, it will be science fact.

Light yet powerful handheld devices will respond to touch, speech and thought. Graphics, including holographic effects, will make computer interaction increasingly ‘real’. The internet will be ubiquitous and while people will talk about the crisis of internet failure, the system is unlikely to fall over39. The big brands today – Google, Facebook, Twitter – may have gone the way of MySpace, with a new generation of service providers dominating the internet.

Technology-based entertainment including games, music, films and interactive books, will be greatly in demand. New content will be ‘born digital’ and physical items such as print books, records and DVDs will be collectors’ items.

Further space exploration will be a priority for the developed nations.

SOCIETY

We already live in a 365/24/7 society, where, somewhere in the world, there is always someone awake and online with whom we can interact. In 2050, we will be able to chat, study, work and shop whenever we want, in the real world or in one of our virtual worlds.

38 http://www.abs.gov.au/Ausstats/abs@.nsf/Latestproducts/3222.0Media%20Release12006%20to%2021011?opendocument&tabname=Summary&prodno=3222.0&issue=2006%20to%202101&num=&view=
39 http://www.ft.com/cms/s/0/fbb9e0a4-a2ce-11de-ae7e-00144feabdc0.html#axzz2NhzLV2oS
Our activities in real and virtual worlds will not go unnoticed. Surveillance will be a feature of many societies, with sophisticated drones capturing film footage and transmissions, enabling governments to monitor what is happening on a real-time basis. Embedded technologies will also provide real-time data on the habits of individuals.

EMPLOYMENT

With highly automated manufacturing and production, employment will be in the knowledge-based and creative industries. In order to compete successfully, countries will need highly educated workers with good communication skills. Innovation will provide short-lived advantage and there will be a strong emphasis on customer service.

ECONOMY

We will have seen the end of Australia’s mining boom in 2015\(^{40}\), bringing with it financial uncertainty, in line with what is happening in other parts of the world.

Primary sources for this futurists’ view of the world:

2. Future Forum How Will the Asian Century Shape Australia’s Future? ANU Channel 31 August 2011 [http://www.youtube.com/watch?v=YQjIiLmPg](http://www.youtube.com/watch?v=YQjIiLmPg)
3. Future Timeline aggregated content [www.futuretimeline.net](http://www.futuretimeline.net)

**THEME 1: CONVERGENCE**

In a tighter economic environment, governments and organisations will be looking for ways to operate more efficiently and at lower cost. Convergence will be more attractive than people and services working independently from multiple locations.

Technology will encourage this view of the world. It is already possible to provide information services remotely to thousands of users, removing the practical need for on-site professionals. This works from an efficiency perspective but it can compromise customer service.

In a digital environment, where the emphasis is on economies of scale, what could this mean for library and information services?

**SCHOOL LIBRARIES**

Most schools have a library of some description, but they vary enormously in terms of staffing, facilities and resources. At the lower end, there are schools with a few shelves of books and a member of staff whose responsibility it is to look after them, as part of a much wider teaching or administration role. At the high end, there are flagship library and IT hubs, with a dozen members of staff, several of them qualified teacher librarians, a growing collection of print and ebooks, providing a range of services to students, including safer online experiences, group learning and study spaces, and more electronic resources.

ALIA and our school library association colleagues have been lobbying for a greater investment in school libraries and library professionals, to ensure that all students are supported to develop document, prose, information and digital literacy skills.

For private schools, convergence would be less of an issue, as the quality of school libraries is an important selling point to parents. In faith-based and government schools, however, there could be strong drivers to combine services.

**Scenario 2025**

*Everyone agrees the importance of all forms of literacy in our future knowledge-based society and it is recognised that a good library and information professional is an essential support for other teaching staff.*

*Principals see the need to employ library professionals (teacher librarians, librarians, library technicians) but on their own, they cannot afford to do so. They set up small local networks enabling a group of schools to employ a team of professionals to provide a roving school library service.*

*Budgets are still held by the individual schools but this also allows for more of a consortia purchasing arrangement for the libraries around print and other materials. This is relatively small scale, however, as electronic resources dominate, and contracts for ebooks anderesources for government and faith-based schools are now managed at a state or territory level.*
The idea is sound, but managing a central service is awkward for the principals, and so we see new models emerging whereby private firms or Departments of Education employ and manage the library teams.

This improves the service for students in schools that haven’t previously been able to employ their own library professionals, and principals enjoy the client service relationship that removes direct people management responsibility. There is some loss of the feeling of ownership by all parties.

PUBLIC LIBRARIES

Public libraries have many examples of cooperation at state/territory and national level, not least the production of the National Year of Reading in 2012. However, there are still significant opportunities to leverage the strength of their networks. Public Libraries SA initiated its One Library project in 2012, which will see all public libraries in the state adopting one library management system and library users gaining the benefits of one card providing access to all libraries across South Australia. Other states are watching this project with interest. Victoria’s Tomorrow’s Library project41 talks about the ‘Victorian Library’, offering a seamless network of library services across the state.

Scenario 2025

Following the end of the mining boom, the Australian economy has suffered and household incomes have fallen. A quarter of Australians are living on pensions and, as manufacturing and production has become increasingly automated, there are higher levels of unemployment. People are seeking ways of improving their job opportunities and there is a strong interest in informal learning. At the same time, there is a need for distraction, entertainment, but people can’t afford to pay for all the content they would like to access.

Instead of being a member of only your local library, your library card now gives you access to any library service in your state or territory – and there is the prospect of a national library card by 2030. This means you have access to all the physical print collections, although these are very much smaller, and you are able to borrow e-resources – ebooks, newspapers and magazines – from the Loans Central database. If there is a waiting list for any of these items, you have the option to buy them from a choice of online retailers or from your local store. You can also stream films, music and games from Loans Central, but there is a modest cost attached to this service.

The move to Loans Central was hotly debated in the sector and it took several years of negotiations with publishers and aggregators to achieve this state of convergence. The innovative economic model rewards creators and those who add value to the finished product, while being affordable within council budgets. Savings have been achieved through patron driven acquisition models for ebooks, newspapers and magazines, which have eliminated waste and focused on the items for which there is a significant demand.

For library staff, this means that the vast majority of collection management and development is now outsourced to Loans Central, and the day-to-day focus is on supporting communities through initiatives, events and activities that promote social interaction, engagement, literacy and lifelong learning. Library staff continue to be highly valued by their communities, not only for their knowledge, but also for their nurturing and encouragement. Recruitment advertisements often ask for professionals with teaching and facilitation skills.

Other forms of convergence have also been introduced, in terms of joint programs and services across regions, states, territories and the whole of Australia. These initiatives focus on critical agenda items such as sustainable living; pathways into formal learning and promoting the benefits of cultural diversity. They build on the successes of the Summer Reading Club, National Simultaneous Storytime, The Reading Hour and eSmart Libraries. Federal government increasingly sees the public library network as a national asset despite the fact that it is funded by local and state or territory governments.

UNIVERSITY AND TAFE LIBRARIES

University libraries are generally well-funded and viewed as integral to the institution. By contrast, expenditure per student in TAFE libraries is significantly less ($26 compared with $460). Turmoil in the TAFE sector, with funding cuts and restructuring, has had a detrimental effect on libraries.

We are already seeing these libraries reducing the size of their physical collections or transferring print books and journals to offsite storage. This is enabling university and TAFE libraries to open up more learning spaces for individual and group study. Libraries are being redefined as ‘learning commons’ providing information and research tools, IT help desk and other student services, all in one place – a good example of convergence.

The federal government is looking for a strong return on investment from academic research, and within universities, libraries and librarians have become an integral part of the research project lifecycle, providing advice on citation metrics and research data management.

Scenario 2025

In this knowledge-based economy, university libraries are thriving. Graduates are returning to study for second and even third degrees at different stages of their careers, simply to stay ahead. Much of the increase is in distance learning and part-time enrolments. Vocational training is holding steady. Artificial intelligence has enabled many manual tasks to be automated, but a concerned government is encouraging people to reskill for employment in the care and service sectors.

University libraries’ established consortium purchasing model, through the Council for Australian University Librarians (CAUL), has been challenged by publishers and aggregators in the move to digital. However, CAUL members have remained united.

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42 ALIA estimate
and they are now purchasing ebooks and eresources on a centrally negotiated basis, providing benefits of scale for all members.

TAFE libraries have followed the public library model and have created a version of Loans Central, which currently operates at a state and territory level, with the hope that it might become a national resource in the near future.

University and TAFE libraries are now handling contract negotiations for students’ own etextbooks and enabling access to previously free, now paid-for content on the internet, including news sites. This service comes at a cost to the user, but is highly valued by students and faculty, as it saves them money.

Patron driven acquisition is the model used by all academic libraries and over the years, physical collections on the shelves and in storage have been thoroughly weeded to reduce holdings to a minimum.

The biggest city-based TAFEs continue to offer physical libraries, operating as learning commons, and they provide a remote service to students at smaller regional TAFEs, where there is no longer any library service.

Overall, fewer library staff are needed in academic libraries. There is very little involvement in traditional library tasks such as cataloguing, and many have found jobs at other points in the supply chain, often working for vendors. Library and information professionals with strong research skills are still in high demand, as students struggle to find what they need on the internet, which is now of a size that cannot be quantified.

SPECIAL LIBRARIES

Government, health, law, corporate and other special libraries are all going through a period of great change. Libraries in these environments are having to state and restate their value, as administrators seek to label them non-core and view them as a soft option for cuts.

Scenario 2025

When the global financial crisis mark 2 kicked in, special libraries bore the full brunt, with closures, job losses and forced amalgamations. As a result, nearly all special library and information services are now shelf-less. The transition from a roomful of books to a desk, a phone and a PC was painful but necessary. The good news is that the technology has moved on, and what was once a remote, faceless service, is now a close client relationship, with live visual links.

With operating costs stripped back, organisations have been persuaded to invest in re-employing library and information professionals and the benefit to the organisations in terms of faster, smarter, more accurate information has been proven time and time again.
Shared services are now common across federal, state and territory governments. Law libraries remain stand-alone, but some health libraries have amalgamated and smaller health centres in regional locations access information services remotely.

The role of the library and information professional has evolved into knowledge management and records management, but there is still a strong reliance on research skills and the ability to find the precise information that is required from the mass of data that is available on the internet.

It is no longer necessary for the library and information service to have a physical location, and library and information professionals often work from home, joining the growing number of telecommuters.

COLLECTING INSTITUTIONS

While governments recognise the importance of collecting, preserving and making the past accessible to Australians through digitisation, the cost and scope have been significant barriers to investment. The National Library’s Trove initiative, which commenced in March 2007, has already seen nearly 8.5 million pages of Australian newspapers digitised. Now the National Library is partnering with the State Library of NSW, which was awarded $32.6 million by its state government to digitise collections in 2012, to add many more newspapers to the database.

The other challenge facing collecting institutions is how to collect items that are ‘born digital’. It is one thing to acquire the written diaries and papers of a distinguished citizen, it is another to sort through the email archives of a famous individual. In addition, the fact that ebooks are licensed rather than owned casts doubt over the long term sustainability of legal deposit.

Scenario 2025

Trove remains the definitive source on the web for all things Australian. It now contains more than 40 million pages from digitised newspapers and more than a billion items relating to Australian society. Early negotiations with media owners meant that as newspapers and magazines converted to online only editions, files were automatically added to the Trove database.

The online collections of the national, state and territory libraries have converged through Trove and most local history collections – documents, manuscripts and images – have been uploaded.

Collecting institutions are now skilled at managing donations of digital materials, and exciting new multi-media exhibitions, using enhanced holographic images, are bringing renowned characters to life and enabling visitors to interact with them.

43 http://www.nla.gov.au/content/newspaper-digitisation-program
SUMMARY

Convergence is an efficiency model. Generally, it means fewer jobs but the positions that are available require people with significant skills.

If the scenarios play out as we have described, there will be more jobs at other points in the supply chain. Instead of being employed to catalogue books in libraries, library and information professionals will work for vendors. We can already see this happening, for example CAVAL employs 13 cataloguers to make foreign language titles shelf-ready for libraries.

For school libraries, there will be an even stronger emphasis on literacy, less emphasis on collection development, and new relationships with host schools. While a private firm will provide positions for library and information professionals, they will be without the benefits of public sector pay and conditions.

In public libraries, we will see more need for event and activity management. There will be a continued requirement for people who have excellent customer service skills, and increasingly managers will be looking for people with teaching and IT backgrounds to bring their skills into the mix. In this scenario, inter-personal skills will be more attractive to employers than traditional library skills.

Academic library staff will be less involved in library management processes. Instead, staff will be involved with purchasing and contract negotiation, and customer-facing services, especially research, helping people find information and hone their own search skills.

Research skills will also be the primary requirement for staff in special libraries. They will increasingly be involved in knowledge and records management. There will be a more arms-length relationship with users and library and information professionals will need to develop a client management approach. Training in information literacy for the organisation will also be an important role. In this scenario, there will be fewer positions, but a greater understanding of the value of employing library and information professionals.

Collecting institutions will work together to produce a comprehensive source of Australian materials from the time of the First Fleet, through to present day. New skills in terms of digital preservation will be needed but there will also be a push to acquire and preserve books, documents, manuscripts, maps, photographs and illustrations that might otherwise be lost to the nation.
THEME 2: CONNECTION

Convergence takes care of efficiencies and economies of scale, but it does not take into account the human need to connect with families, friends and colleagues.

Generation Y will be the 25-45-year-olds in 2025 – the people moving up the ranks in government and business – and they have been found to be far more civic-minded than baby-boomers.44 We can anticipate a society that has a strong sense of social justice and investment in initiatives to promote cohesion, health and wellbeing.

With the basic necessities of life – water, food and fuel – in shorter supply, people will be encouraged to cluster together in a tight urban footprint, to make best use of the transport and utilities infrastructure. While this supports the practicalities of existence, it threatens people’s quality of life. To counteract this, government will invest in civic spaces – buildings, parks, plazas, where people can meet, mingle and breathe in the air.

Homes will be smaller, yet people will be studying more, telecommuting for work, and increasingly looking for the act of creation to be a collaborative effort. Space to study, work, create and connect will be at a premium and residents will look to their local governments to provide shared community facilities.

SCHOOL LIBRARIES

Scenario 2025

The scarcity of public outdoor and indoor space has seen greater pressure on schools to provide facilities that the whole community can use. The concept of joint use libraries has become redundant, as all school libraries are available to local communities, at the very least at weekends and during school holidays.

Forward thinking principals have embraced the opportunity and have been rewarded with more funding for ovals, sports halls, libraries, music venues, art rooms and other facilities that are especially attractive to the broader community. This investment has not only resulted in state-of-the-art buildings and equipment, but also in staffing levels to support the additional demand for services.

School libraries in this environment are providing facilities for early childhood groups; hosting informal learning for people of all ages; working collaboratively with the local public library to provide access to a range of reading materials in electronic and hard copy formats, and supporting creative endeavours – writing workshops, book groups, sound and vision and multi-media activities.

There is overlap with public libraries and this has to be managed at the local level to ensure that programs and activities are complementary rather than competitive.

PUBLIC LIBRARIES

Scenario 2025

Although book loan transactions are mainly online, people are still regular visitors to their local libraries – in fact library visits have increased year-on-year to the point where 60% of the population are members.

With the shelves out of the way, buildings have been reconfigured to provide more study spaces for children and young people; facilities for people who work from home; community meeting rooms; informal lounge areas and group activity spaces. There is a calm area, which is almost a place of meditation, but the whole building is designed to lift the spirit, encouraging creativity and connection.

Multi-media walls, green walls, interactive exhibitions and, of course, excellent coffee make libraries the oasis in the community. Maker spaces enable library users to be the creators and publishers of everything from ebooks to jewellery. Film-making, music mixer and design software is available on state-of-the-art computers, and 3D printers are commonly used.

The mass of PC terminals has gone, and although there are devices available, most people have their own handheld devices. Free wifi is a must-have in all civic properties. There are also ICT hubs to enable people to engage in virtual meetings – Skype and web conferencing look incredibly clunky by comparison to the holograms and 3D graphics that make you feel as though you are in the same room with people who are thousands of miles away.

Library staff are on hand to help people find what they are looking for on the internet, whether that is information to support work and study, or advice about new authors and new books for readers.

The role of libraries in literacy and informal learning is widely recognised. There is a close relationship between public libraries and schools, and most parents with pre-schoolers make a point of joining their local library and participating in early years activities.

Mobile libraries have remained a much-loved source of connection for more remote communities. Advances in technology have led to vehicles being transformed into travelling interactive experiences, with virtual galleries and creator spaces, as well as access to reading materials and the delivery of library programs.
UNIVERSITY AND TAFE LIBRARIES

International students are big business for Australian universities and TAFEs, and they make a substantial contribution to local economies. According to the Australian Bureau of Statistics, in 2009 22% of tertiary students were from overseas, and in 2010–11, of the 282,000 student visa applications lodged in Australia, 43% were within the higher education sector and 30% were for the Vocational Education and Training (VET) sector. With technologies increasingly enabling students to study remotely, where will that leave our universities and TAFEs?

Scenario 2025

Most tertiary learning is remote. MOOCs (mass open online courses) have not only helped transform the way people learn but also prompted a new economic model, making courses more affordable and convenient, and opening them up to a far wider audience.

The knowledge-based economy calls for people who have exceptional powers of reasoning, highly developed intellects and in-depth subject expertise. First degrees are no longer sufficient to secure a senior position and most people with career aspirations return to university to acquire a second and even a third qualification. For some, it is a progression from graduate, to post-graduate, to masters. For others, it is a series of inter-related courses at degree level. The age balance enrolled at universities is no longer weighted towards the young.

The Asia Century means that as many Australians study in Asian universities, as Asians study in Australian universities. Our major universities have strong partnerships with overseas colleges to enable them to thrive in a situation where the tables have turned. A degree from a Chinese or Indian university now has as much prestige as a degree from an Australian university. Academic research is an important opportunity for universities to work together and the research environment is rich with linkages between faculty and library staff from universities in Australia and across Asia.

Technology enables researchers and library staff to work together, tutors to interact easily with students, and cohorts to gather online, even when they are thousands of miles apart.

Face-to-face interaction is now rare, but highly valued and anxiously anticipated by students. Most courses involve a four-week residency and university campuses have been reshaped to accommodate this shift in emphasis. Campuses are focused on accommodation (halls of residence, student catering), lecture theatres and open learning spaces (libraries).

Remote learning also applies to TAFE courses, as regular travel has become prohibitively expensive. Online courses have made 365/24/7 study a reality, but students still crave the face-to-face experience. A number of regional TAFE super-campuses have been developed and, as with university students, there are short
residency sessions enabling students to interact with their peers and their tutors once or twice a year.

SPECIAL LIBRARIES

A sense of connection is of less relevance to most special libraries, where it’s all about the information. However, as conversation around the water cooler ceases to be an option, organisations will need to find new ways of building strong teams and enabling a steady transfer of information along informal as well as formal routes.

Scenario 2025

With a significant proportion of the work force now telecommuting – working from home and communicating through ICT channels – government departments and businesses have had to find new ways of making their teams feel connected to each other and to the overall goals of the organisation.

IT units set up many advanced methods of communicating with employees working remotely, but it was swiftly realised that the infrastructure alone was not enough – you needed people to seed discussions, feed the debate, support conversations, to keep up the content flow and ensure that employees remained engaged, entertained and well-informed.

Early on, library and information professionals were found to be adept at operating in a social media environment, and this skill has been harnessed to drive the new generation intranets, which combine social chit chat with information, knowledge and records management. The role of library and information professionals has been expanded and they are now seen as an integral part of the communications team.

COLLECTING INSTITUTIONS

In a time of uncertainty, where technology is leading us into new, uncharted waters, it is likely that there will be a strong sense of nostalgia in society and a desire to connect with our roots.

Scenario 2025

Connection with family and friends is highly valued in this online world, as is connection between the past, present and future. People are concerned about the legacy they will leave for future generations.

Many people seek their own form of immortality through words, pictures, film and digital profiles. Using 3D graphics and voice synthesisers, it is possible to create lifelike visual representations, ‘ghosts’ that can engage in conversations.

National, state and territory libraries have acquired the technology to help people create and store their ghosts, and inclusion in the library collection is seen as the modern day equivalent of a brass plaque on the park bench – a form of community memorial. For the library, every ghost provides a small piece of social history.
Advances in technology have also enabled collecting institutions to turn images into holograms, for example enabling visitors to walk through early photographs, experiencing the sights, smells and sounds of city or country life.

The public’s enthusiasm for these kinds of initiatives brings more visitors through the doors, more visitors to the websites, and new income streams into the collecting institutions, providing funding for the expansion of the physical and digital collections.

At the same time, the buildings themselves are treasured civic spaces in an increasingly built-up environment.

SUMMARY

Connection is good for libraries, it plays to our strengths. In this environment, libraries thrive, although library and information professionals have to step outside their comfort zone.

- School libraries will serve a new market – the community.
- Public libraries will have to remodel their interiors and create spaces for new activities.
- University and TAFE libraries will have to rethink the campus model as a place where a cohort of students will be in situ for a few weeks, not a few years.
- Library and information professionals in special libraries will need to embed their research skills and harness their communication skills.
- Collecting institutions will be the providers of immortality through the digital record.
THEME 3: THE GOLDEN AGE OF INFORMATION

If we look back over the last 200 years, we can see that the Industrial Revolution was followed by a period of empire-building, trade, and the refinement of fossil fuels to provide essential sources of power. The first half of the 20th century saw the development of transport and advances in medical science; post WWII we had rapid expansion in terms of communication and then, in the last 30 years, our world has been dominated by the speed of technological innovation.

This explosion of ICT means we are generating more information now than at any time in history. The latest buzz is around ‘big data’, from the IBM website, ‘Every day, we create 2.5 quintillion bytes of data — so much that 90% of the data in the world today has been created in the last two years alone. This data comes from everywhere: sensors used to gather climate information, posts to social media sites, digital pictures and videos, purchase transaction records, and cell phone GPS signals to name a few.’

The term ‘information age’ has been used but the definition is usually related to the IT rather than the content, for example, ‘A period beginning in the last quarter of the 20th century when information became easily accessible through publications and through the manipulation of information by computers and computer networks’.

Our proposition is that, while there is an ever-increasing volume of information, we have yet to reach the golden age of information, where all knowledge is available to everyone, all the time – albeit at a price. We are at the point where people are excited about the technology and experimenting with the content, but have yet to understand the full opportunities and implications of having access to terabyte after terabyte of information.

In this environment, library and information professionals can embrace the concept of big data while government, businesses and other organisations struggle to manage the deluge of facts, knowledge and insight. The skills of library and information professionals will once again be recognised, especially the ability to detach ourselves from the specific content and instead concentrate on the metadata around it. ‘Find, filter, connect’ will become the mantra of our profession and organisations will be eager to recruit our members, to help them find a way through the mass of intelligence, which is useless without a guide and interpreter. The most desirable skills will be a combination of information, knowledge and records management.

SCHOOL LIBRARIES

Scenario 2025

To function effectively during the emerging golden age of information and beyond, students need to know how to navigate the sea of facts. Schools employ teacher-librarians not only to manage physical and digital collections, support literacy and

46 http://www-01.ibm.com/software/data/bigdata/
**Theme 3: The Golden Age of Information**

host a learning commons environment, but also to teach information management skills as a curriculum topic. In 2025, everyone needs to acquire basic level library and information skills.

**PUBLIC LIBRARIES**

**Scenario 2025**

By 2025, public libraries have established their position in the literacy landscape, as well as providing reading materials and civic spaces. As with school libraries, they have a greatly enhanced role in supporting people to develop information management skills. Information sourcing, retrieval and interpretation is as necessary in terms of skill development in 2025 as IT literacy was in 2013. Internet for seniors courses have been replaced by information for seniors training sessions.

**UNIVERSITY AND TAFE LIBRARIES**

**Scenario 2025**

Tertiary students are eager to learn library and information skills. They know that in a knowledge-based economy, the ability to find and filter information will be essential if they are to succeed in their career, whether that is from an academic or a vocational perspective. Students also want to know how best to code their outputs to make them discoverable, as this too will enhance their employability.

Academics are reliant on partnerships with library and information professionals to assist with their research, and more library and information professionals are needed, not only to run the libraries, but also to help faculty and students advance their library and information skills base.

**SPECIAL LIBRARIES**

**Scenario 2025**

This is not only the golden age of information, it is also the golden age of library and information professionals. Organisations that 10 years ago had reduced their staffing levels in this area are increasing their recruitment, striving to attract the best information, knowledge and records management professionals. Library and information professionals no longer report to the management team through multiple layers of bureaucracy, they have their own seat at the top table. Library and information professionals employed in this sector are respected, valued and financially rewarded.
COLLECTING INSTITUTIONS

Scenario 2025

The national, state and territory collecting institutions have invested in the technology and infrastructure to support the golden age of information. Their early commitment to digitisation made a major contribution to the amount of information available, and it helped ensure that Australian content is well represented at a global level.

The information collected, stored, digitised and made discoverable by these collecting institutions has produced invaluable resources, which help provide context and benchmarking opportunities for all the information that is ‘born digital’.

SUMMARY

The golden age of information is coming, the question is whether or not today’s library and information professionals can make it their own. If we can, this era offers highly attractive opportunities for the profession and it opens up the possibility of many more of our members occupying senior positions in government, not-for-profit and commercial enterprises.
CONCLUSION

The future is, in part if not completely, in our own hands. We can set out to extract the best outcomes from the three themes we have described, and from any other scenarios that may be developed during the course of the ALIA Future of the Profession project in 2013.

All of the situations we have described are possible, and in many cases, they are probable, based on the early indications that we see today. All we have done is to push trends further and to apply the lessons we have taken from the future-thinking we have accessed.

ALIA’s role is to support our members through the changes that lie ahead and to strive for the best possible outcomes, remembering, always, that together we are stronger.
APPENDIX 1

LIBRARIES IN AUSTRALIA

A library is part of every Australian's experience. Whether it is the school library, the local municipal library, a visit to an imposing State Library reading room, or a forage around the shelves of the bookmobile, a library is where we go to 'find out'.

The First Fleet not only brought convicts, soldiers, plants and animals from Britain to the new colony of New South Wales, it also brought New South Wales' first printing press and first books.

The books were not those of a public library, but the small collections of individuals, or the books of learning required in the establishment of a new colony - the law books, the religious books, the books of science and navigation. But as Peter Biskup points out in his book Libraries in Australia, the most important thing brought to Australia in the First Fleet which impacted on the development of libraries was the 'idea' of libraries.

The first, albeit unsuccessful, attempt to establish a public library in the new colony of New South Wales was an appeal to the British public by the Reverend Samuel Marsden, begun in 1809, for books and money for a library of 'carefully selected books ... suited to the poor settlers employed in agriculture, the soldiers and the convicts'.

In 1821 a catalogue of the libraries held by private citizens in the colony was compiled, and from these private collections a number of libraries began to emerge. The 1820s saw the setting up of subscription libraries, and by the 1830s the introduction of schools of arts, mechanics' institutes, and literary institutes had added to the number of libraries available to the people of the colony.

School of Arts movement

There was a worldwide response to the 'School of Arts' movement which began in Britain in the beginning of the nineteenth century. The first School of Arts opened in Edinburgh, Scotland in 1821, with others in Glasgow and London in 1823. In Australia, the term Mechanics' Institutes was popular, but could also be known as Schools of Art and Literary Institutes. These schools or institutes were places where those mainly working class men could go and hear lectures of use to them in their practical work, access a library of books, and so improve themselves. The first of these in Australia was the Van Diemen's Land Mechanics’ Institute, Hobart which opened in 1827. Others followed in Melbourne and other Australian cities and towns. By 1900 Australia supported 1000 Mechanics' Institutes with memberships of between 100 and 200 people. Most of these Institutes had less than 1000 books.
(Source: The Gympie School of Arts and Library - 90 Years of Service 1905 - 1995 by Rae Webb, Brisbane, 1995)
Mechanics’ Institutes

Mechanics’ Institutes were very often supported by the colonial governments - usually by land grants and cash assistance. Mechanics’ Institutes were particularly popular in country areas where their role often went far beyond their “library” function to a general focus for the community’s cultural activities. Because of this important role and because of the support of the colonial governments, Mechanics’ Institute buildings were frequently quite imposing and they form an important part of Australia’s built heritage. The Tenterfield School of Arts was the venue in which Henry Parke made his famous speech, which is seen as the first step to the Federation of Australia.

Free municipal libraries began to appear in Australia in the 1850s as did central public libraries - which largely went on to become the State Libraries. Parliamentary libraries were established to support the work of state parliaments, and a Commonwealth Parliamentary Library was set up in Melbourne to support the new Commonwealth Parliament in 1901.


Libraries today

Libraries today are much more than repositories for books. New technologies like CD-ROM and the Internet mean libraries are now also gateways to the online world, and librarians the finders of knowledge in electronic space as well as in the stacks. The Net also makes our library heritage - the vast collection of books, manuscripts, photos, ephemera - more accessible to more Australians.

Major initiatives like the Australian Libraries Gateway ensure the accessibility of these vast resources.

Major databases such as those at the Mortlock Library of South Australiana, the State Library of Victoria and the State Library of Tasmania bring our heritage into our present and ensure it will be part of our future.