# Library and Information Studies Education in New Zealand and Australia: Background, Issues, and Challenges

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Professional library education in New Zealand and Australia has developed independently, with different structures for entry-level qualifications. Both countries face challenges in continuing to offer high-quality programmes, in part due to the distribution of students relative to the providers. This paper outlines the LIS qualifications and characteristics of the providers in each country, followed by a discussion of issues the programmes face in remaining relevant in the future.

# Introduction

The goal of this paper is to describe current New Zealand and Australian professional library and information studies (LIS) education programmes, and also to identify the challenges these programmes face. The paper concludes with reflections on the similarities and differences between LIS education in the two countries, and possible ways in which the issues could be addressed.

## **New Zealand**

New Zealand is a small, isolated group of islands in the South Pacific Ocean, approximately 2000 kilometres south-west of Australia. It is slightly larger than the United Kingdom and roughly the same size as Colorado, with a population of around 4.5 million. New Zealand is a bicultural country that recognises indigenous Māori traditions and culture as a significant feature of New Zealand life. New Zealand is also a country of migrants: 25.2 percent of people living in New Zealand were born overseas, and 15 percent identify as indigenous Māori, 12 percent identify as Asian, and 7.5 percent identify as Pacific peoples (Statistics New Zealand, 2014a).

A high proportion of New Zealanders are literate and information-aware. New Zealanders are heavy consumers of electronic information, with 92% of those surveyed as part of the World Internet Project New Zealand indicating that they are actively using the Internet (Gibson, Miller, Smith, Bell, & Crothers, 2013).

## LIS Education in New Zealand

The most recent New Zealand census results indicate that there are roughly 9,000 information professionals, including archivists, librarians, records managers, library assistants and 'information and organisation professionals' (Statistics New Zealand, 2014b, Table 23). Since the 2006 census, there have been significant increases in the number of health information managers (110% increase), chief information officers (228% increase) and library assistants (84% increase) (Cossham, Wellstead & Welland, 2014, p. 5).

Traditional LIS education in New Zealand is provided by two tertiary institutions: Victoria University of Wellington offers a Postgraduate Certificate in Information Studies, a Postgraduate Diploma in Information Studies, and a Master of Information Studies, while the Open Poly-

technic of New Zealand offers a range of undergraduate qualifications, including a Certificate in Literature and Library Services for Children and Young People, a Diploma in Library and Information Studies, a Bachelor of Arts, and a Bachelor of Applied Science. Both of these institutions offer elective courses in archives and recordkeeping in their qualifications. Student numbers have traditionally been too low to justify separate degrees in either archives and recordkeeping at either Bachelor's or Master's level. However, since New Zealand's recordkeeping community generally follows the records continuum model (which identifies the archival value of a record while it is still current and applies appropriate ongoing methods of management), this may be less important than it would be in other countries. For a more complete discussion of the history of these qualifications, see McCahon (1999), Irvine and Cossham (2011), Chawner & Oliver (2012), and Cossham, Wellstead & Welland (2014).

Distance delivery is a feature of both institutions' information studies programmes. The Open Polytechnic's undergraduate programme is offered only by distance, while Victoria's postgraduate programme is offered both face to face and distance. At both institutions, the majority of students study part time while working full or part time, often (but not always) in libraries and other information organisations. Distance education has proved to be popular, due to the relatively small and geographically diverse population. In addition, students live throughout the country, while both programmes are located in the Wellington region. It is not feasible to offer face-to-face LIS education more widely as student numbers are too low to sustain more programmes (Chawner and Oliver, 2012).

A third institution, Te Wānanga o Raukawa (a Māori polytechnic) offers a qualification called Poutuarongo Puna Maumahara (Bachelor of Information Management); however, as students must have some fluency in te reo Māori (Māori language), along with 'a strong desire to be bilingual and have the support of a hapū or iwi [tribal groups]' (New Zealand Qualifications Authority, n.d.a) these qualifications have limited general appeal, and student numbers are low.

The Library and Information Association of New Zealand Aotearoa (LIANZA) implemented a professional registration scheme in 2007. The scheme allows qualified practitioners holding a recognized qualification to be registered. LIANZA currently recognizes qualifications from each of the providers: Victoria's Master of Information Studies (with the library and information science specialization), the Open Polytechnic's Bachelor of Applied Science and Bachelor of Arts, both with the Library and Information Studies major, and Te Wānanga o Raukawa's Poutuarongo Puna Maumahara.

# New Zealand LIS Education Challenges

The main issues facing New Zealand library educators are the relative isolation of the providers, which leads to a lack of local peers to provide benchmarks for programmes; distance delivery of the programmes, which makes it difficult to maintain student engagement; and the relatively small size of the programmes, which makes it difficult for the programmes to influence decision-making within their parent institutions.

Library education in New Zealand has been relatively stable for the last 15 years, with no change in the organisations that provide LIS qualifications. Because each programme is unique within the country, ensuring that programme content and structure is consistent is a challenge, since there are no equivalent programmes to provide an easy comparision. Each institution has set up an advisory body with industry representatives to ensure that the programme content and structure is reviewed on a regularly basis.

In addition, all Victoria University qualifications are reviewed by an external panel every seven years to ensure that the programme content and structure reflects international standards. The last of these reviews occurred in 2012, and as a result of the review panel's recommendations, the programme structure was amended to include two additional compulsory courses. One of these. The Information Professions, focuses on the nature of library and information studies work in New Zealand, with students required to spend a day shadowing an information professional in an unfamiliar work context. This is intended to give students an appreciation of the diversity of information work. The second new compulsory course focuses on individual information behaviour and information seeking in different contexts. In addition, the electives offered were revised to include more electives that focus on recordkeeping and archives management to strengthen that area of Victoria's postgraduate qualifications. The revised curriculum structure was offered for the first time in the 2015 academic year. Student feedback will be used to assess whether the new structure is achieving its objectives, and if the results indicate areas that could be improved, the course content and assessment will be modified

In 2014, the New Zealand Qualifications Authority (NZQA) initiated a review of all sub-degree library qualifications in New Zealand, in order to identify whether any changes were necessary. The review was initiated in response to concerns raised by key stakeholders about the clarity and relevance of vocational qualifications. A review panel consisting of industry representatives was created, and there was widespread consultation with members of the information professions in New Zealand about what types and levels of qualifications were required for staff in lower level positions in libraries, archives, and records centres. The final report of the review (available at https://imsqualreview. wordpress.com/qualifications/)

mended that five new qualifications be established, two of which are new to the industry, and three which would replace the Open Polytechnic's existing sub-degree qualifications.

The proposed qualifications are:

- NZ Certificate in Library Practice: new, intended primarily for library assistants
- NZ Certificate in Heritage Information: new, intended primarily for people working with heritage information in any context
- NZ Diploma in Library and Information Studies (Level 5): would replace existing diploma
- NZ Certificate in Library and Information Services for Children and Youth (Level 6): would replace existing certificate
- NZ Diploma in Records and Information Management (Level 6): would replace existing diploma

The new and revised qualifications, which would be national qualifications, indicated by NZ as part of the qualification name, are currently being reviewed by the NZQA. If they are approved, as national qualifications, they could be offered by any accredited educational organisation able to deliver the content to the required level. In mid-2015, no organisations other than the Open Polytechnic have indicated that they intend to offer these new qualifications

One distinctive feature of both programmes, again resulting from their location in a country with a relatively high proportion of indigenous Māori in the population, is the need to include suitable material in their curricula. Lilley and Paringatai (2014) outline the ways in which Māori knowledge paradigms have been included in LIS curricula over the last 25 years. Victoria's programme has included an elective on Māori Information Sources since the late 1990s, taught by an adjunct lecturer who is himself Māori. The course is offered every two years, and focuses on

resources and services that are of specific relevance to Māori library users. Lilley (2012) provides additional background on the topics covered in the course, noting that "[s]tudents completing this course are well-equipped to assist and support their Māori colleagues and to provide an informed reference service to Māori clients" (p. 75).

Another challenge common to both New Zealand programmes is the nature of the student body, with a high proportion studying part-time by distance. This makes it difficult for both programmes to offer additional activities intended to socialise students into the profession, such as having guest speakers from industry. In 2015, Victoria's postgraduate programme introduced a compulsory work shadowing assignment in the core course The Information Professions, which was intended to allow students to observe work in a different context to their work experience. Informal feedback from students indicates that this was very successful, though a formal assessment will not be undertaken until the course finishes in June 2015

Another significant challenge for the New Zealand LIS programmes results from their relatively small size and geographic isolation. This not only limits the amount of research in LIS undertaken in New Zealand, it also causes the programmes to have a relatively low international profile. This is most obvious when recruiting staff to fill vacancies, when it has been difficult to attract applications from highly qualified and experienced lecturers. Attending overseas conferences is time-consuming and expensive due to the costs of travel and accommodation. This means that staff have limited opportunities discuss common issues with their peers teaching in similar programmes.

The low research profile has a significant impact on the visibilility of the programmes within their respective institutions, and means that overall the programmes lack influence in the context of higher education in New Zealand. The weakness of the discipline means that the programmes are vulnerable to changes in funding, and any drop in student numbers could threaten their viability, despite their unique standing in the country.

#### Australia

Australia is the world's sixth largest country, with an area of over 7 million square kilometres, slightly smaller than the continental United States. It borders the Pacific, Southern and Indian Oceans and the Timor, Tasman and Coral Seas. Its population is approximately 23.8 million, with most people living in large urban areas. While overall the population has less ethnic diversity than New Zealand, the 2011 census results show that the proportion of residents born overseas, 26%, is similar (Australian Bureau of Statistics. 2014). Although traditionally most immigrants came from Western Europe, in recent years there has a higher proportion of migrants has from Asia. Only 2.5% of the population identifies as Aboriginal or Torres Strait Islander (Australia's two indigenous groups).

In 2014, the Australian Bureau of Statistics reported that 83% of households had access to the Internet, most with a broadband connection (Australian Bureau of Statistics 2014). Over 81% of people in these households access the Internet daily, and a further 16% do so at least weekly.

# LIS Education in Australia

The 2014 Australian Library and Information Association (ALIA) report on education, skills and employment notes that there are fewer than 30,000 Australians employed in library and information services positions, and that the number has dropped significantly since 2010 (p. 2-3). However, in comparison with the overall workforce, people employed as librarians, library assistants, and library technicians are more likely to have a formal qualification in the field. In contrast to New

Table 1. Professional LIS Qualifications Offered in Australia (based on https://www.alia.org.au/view/course-listing?field\_area\_of\_practice\_tid=109).

Institution	Location	Qualification	Delivery Mode
		Bachelor of Information Studies	Online
Charles Sturt University	Waggawagga, New South Wales	Graduate Diploma of Information Studies	Online
		Master of Information Studies	Online
Curtin University of Technology	Perth, Western Australia	Bachelor of Arts (Librarianship and Corporate Information Management)	Online and on Campus
		Graduate Diploma in Information and Library Studies	Online and on Campus
Edith Cowan University	Joondalup, Western Australia	Bachelor of Information Technology (Information Services)	Online and on Campus
		Graduate Diploma of Science Information Services	Online
Monash University	Melbourne, Victoria	Graduate Diploma of Information and Knowledge Management	Online and on Campus
		Master of Business Information Systems	Online and on Campus
		Master of Business Information Systems Professional	Online and on Campus
Queensland University of Technology	Brisbane, Queensland	Graduate Diploma of Information Science (Library and Information Practice)	Online and/or on Campus
		Master of Information Science (Library and Information Practice)	Online and/or on Campus
RMIT University	Melbourne, Victoria	Graduate Diploma of Information Management	Online and on Campus
		Master of Information Management	Online and on Campus
University of Canberra	Canberra, National Capital Territory	Master of Information Studies	Online
University of South Australia	Adelaide, South Australia	Graduate Diploma of Library and Information Management	Online
		Master of Library and Information Management	On campus
University of Technology, Sydney	Sydney, New South Wales	Bachelor of Arts in Communication (Information and Media)	On campus
		Graduate Diploma in Digital Information Management	On campus
		Master of Digital Information Management	On campus

Zealand, Australia has multiple providers of undergraduate and postgraduate LIS qualifications, as shown in Table 1. All programmes allow students to study full-or part-time.

Two other qualifications, Edith Cowan University's Master of Information Services and the University of Tasmania's Graduate Diploma of Information Management, no longer accept new students. The University of New South Wales stopped offering LIS qualifications in 2006. In addition, 16 institutions, predominately Institutes of Technology and Technical and Further Education institutes (TAFEs), offer sub-degree qualifications intended to prepare graduates to work as library technicians. The remainder of this paper focuses on the qualifications listed in Table 1, since these are generally considered to be the minimum qualification required for professional librarian positions in Australia.

The Australian Library and Information Association (ALIA) accredits LIS programmes that meet its standards for course content and quality. All qualifications listed in Table 1 have received accreditation. Graduates of accredited programmes are eligible for associate membership of ALIA, and may also join ALIA's professional development scheme.

# Australia LIS Education Challenges

Perhaps because of its larger size, LIS education in Australia has been under more scrutiny in the last 14 years than that in New Zealand. In 2001, Harvey noted that the number of institutions offering postgraduate LIS qualifications was increasing, and suggested that this was affecting the qualify of programmes. He suggested that increased collaboration between quality programmes was a possible solution, possibly with the development of centres of excellence for specialisations within the profession.

However, little progress was made in the following years, with the situation Harvey

described remaining relatively static. The next major step occurred in 2009, when the Australian Teaching and Learning Council funded a project, titled "Re-conceptualising and re-positioning Australian library and information science education for the 21st century", led by Professor Helen Partridge from Queensland University of Technology. This initiative was an attempt to examine how LIS education in Australia could produce graduates with "the appropriate attributes to develop and maintain high quality professional practice in the rapidly changing 21st century" (Partridge et al. 2011, p. 1). The project team included representatives from each of the providers of LIS education listed in Table 1 as a partner institution. The issues that led to the project's initiation included:

- difficulty in recruiting new LIS educators, particularly those holding a PhD;
- the broadening scope of the information studies industry;
- the relative high number of LIS education providers in Australia;
- the small size of some of the LIS programmes, in terms of both staff and students; and
- the relatively low level of research conducted by LIS programme staff, particularly given the increasing emphasis placed on research by funding agencies (Partridge *et al.* 2011)

The project gathered data from a range of stakeholders, including practitioners, students, and education providers, complemented by a content analysis of job advertisements for LIS positions in Australia. The project's main outcome was a framework for information education in Australia, with recommendations intended to encourage a national approach to LIS education throughout the country. No timeframe for implementing the recommendations was specified, but the report's authors hoped that the stronger networks of LIS educators created by the project would lead to ongoing progress.

Specific outcomes of this project include a number of publications documenting the results of the various strands of data collection, including Combes, Hanisch, Carroll, and Hughes (2011), Nastasie (2012), Partridge and Yates (2012), and Partridge, Hider, Burford, and Ellis (2014).

Combes, Hanisch, Carroll and Hughes (2011) focused on student perspectives on LIS education in Australia, based around the four themes: learning opportunities, learner characteristics, learning experiences, and learner outcomes. Students and graduates from all Australian LIS programmes listed in Table 1 participated in the research, primarily by completing an anonymous online survey (n = 389), with 13 also participating in teleconference focus groups held in mid-2010. The findings showed that the respondents were primarily aged between 25 and 49, were predominately female, and spoke English as their main language. Most held a previous university qualification, and few had an interest in undertaking a research-based degree such as a PhD. A majority of respondents studied online, which caused them to feel lonely and isolated, which led to lower motivation and minimal interaction in class sessions or with fellow students. Because of this, a key challenge for Australian LIS educators will be the identification of suitable techniques that will not only foster student engagement with their studies, but also create strong connections with fellow students

Nastasie (2012) extended discussion of the research, teaching, and practice challenges identified in the project's final report. Her conclusion emphasises the importance of both theoretical and applied research in providing a strong foundation for LIS education, since this defines the unique qualities of the discipline. Nastasie considered that the lack of funding opportunities for LIS research in Australia presented a significant barrier to resolving this challenge. In order to overcome this, Australian LIS educators will need to work together to create a strong case for increased

national funding for LIS research.

Partridge and Yates (2012) summarised the findings and recommendations of the project's final report, noting that LIS education has unique characteristics in Australian tertiary education. These include the rapidly changing nature of the field and increasing synergies with records and information systems management, the curriculum implications of this change, the range of LIS qualifications available in Australia, and the number of institutions offering LIS qualifications.

The first two of these characteristics are likely to affect all library and information programmes, and are not restricted to Australia, making the project's findings potentially of interest to a wider audience. The first recommendation relating to these issues involves broadening the language used to describe LIS qualifications, for example by using the terms 'information profession', 'information sector', and 'information education'. This recommendation was foreshadowed by changes in the LIS programmes offered by Charles Sturt University (Australia) and Victoria University of Wellington (New Zealand), both of whom introduced a more generic information studies qualification in the 2010 academic year. Hider et al. (2011) discuss the nature of these changes in more detail, noting that the number of students enrolling in the new qualification rose sharply.

Other recommendations discussed by Partridge and Yates (2012) include the suggestion that Australian LIS educators to form a self-directed group that would work together to encourage excellence in teaching and research in the information discipline, the need to strengthen the amount and quality of information-related research undertaken, and the importance of establishing a research agenda that would identify and prioritise topics that would strengthen information education in Australia. The first step towards these occurred with the establishment of an annual symposium of Australian information educators, held in conjunction with the annual Research Applications, Information and Library Studies (RAILS) conference. The one-day symposium, known as AIES (Australian Information Educators Symposium), was held for the first time in 2012 in Adelaide. The most recent AIES symposium was held in Canberra in July 2015, and featured papers from LIS educators in Australia and New Zealand. Despite initial enthusiasm for the symposium, more recently the number of high-quality submissions received has been lower than expected, and the symposium itself has a low profile internationally. In some ways this is a chicken and egg situation: until the amount of research increases, the number of people able to submit a good conference paper is likely to be small; in addition, it takes time to plan and carry out research, which means that the next few years will be critical in determining whether or not these recommendations have been effective.

Another component of Australia's LIS education that was examined in the 2010 project was the characteristics of the educators themselves, reported in more detail in Partridge et al. (2014). Staff teaching in LIS programmes were invited to complete an anonymous online survey that gathered data about their demographic characteristics, work, and job satisfaction. The results, based on 69 completed surveys, show that a high proportion of respondents expected to retire in the next 10 years, and the average age was 50. Most were female, which mirrors the nature of the profession. However, despite the age distribution, most respondents held relatively lower academic positions (the equivalent of a North American Assistant Professor), with few holding the rank of Associate Professor or Professor. Most respondents who were teaching in a university held a postgraduate degree, and over half had a PhD. One distinctive characteristic of respondents was the amount of time they spent on service activities, which at approximately 20%, was notably higher than academics in other disciplines (Partridge et al. 2014, p. 282).

The results also showed that only 70% of respondents who were employed in universities were research-active, and those that were primarily undertook individual applied research. The Australian government, which funds tertiary education in the country, assessed the quality of research across all disciplines and universities in 2010 and 2012. Partridge et al. (2014) note that only three universities had enough research in information studies to be ranked in 2010 (Queensland University of Technology, Charles Sturt University, and the University of New South Wales), which increased to six in 2012 (adding Monash, the University of Tasmania, and RMIT). Since two of these institutions no longer offer information studies qualifications, it is clear that the amount and quality of research undertaken in the field needs to improve. As noted above, this is likely to take time

One recent change that had implications for Australian LIS education was the revision of the Australian Qualifications Framework (AQF), intended to clarify the learning outcomes for all qualifications accredited by the Tertiary Education Quality and Standards Agency (TEQSA) (Hallam 2013). This affected all LIS qualifications, by requiring education providers to revise their learning outcomes to comply with the stated learning outcomes for different levels of qualifications. In particular, the distinctions between the expectations of graduates with Bachelor's degrees, graduate diplomas, or Master's degrees were clarified. For example, graduates of a course-based Master's programme would be expected to be able to plan and execute a substantial research-based project, capstone experience and/or piece of scholarship, while people holding a Graduate Diploma would be able to apply specialised technical knowledge in a range of contexts. The additional work required to ensure that Australian LIS programme learning outcomes comply with these requirements has meant that progress in implementing the recommendations of the 2011 report has slowed. However, now that this work has been substantially completed, Australian LIS educators are expected to return their focus to continuing to implement the recommendations in the 2011 report.

# Conclusion

Despite their geographic proximity, LIS education in New Zealand and Australia has taken very different trajectories. While some of the issues, such as a low research profile and the need to keep programmes up to date with changing industry expectations are common to both, others vary considerably.

In particular, the larger number of LIS programmes in Australia means that over the last five years Australian LIS educators have been able to examine the issues their programmes face in more depth. This has led to increased research collaboration between institutions, though there is still room for more development. In contrast, the two New Zealand programmes have evolved separately, and there is an opportunity for them to build on the work done in Australia.

In his 2001 paper, Harvey suggested that "share to survive" (p. 21) would be a possible solution to the small size and geographic isolation of the Australian LIS programmes, something that has become more feasible as programmes move to distance delivery. Since all of the Australasian LIS programmes are now offered by distance, this seems to be even more relevant. The WISE (Web-Based Information Science Education) consortium based in North America (http://wiseeducation.org) may be a helpful model to facilitate this, particularly since Victoria University of Wellington and Charles Sturt University are already WISE members.

#### References

Australian Bureau of Statistics. (2015). Cultural diversity in Australia: Reflecting a nation: Stories from the 2011 Census. Retrieved 18 May, 2015,

- from http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/2071.0Main%20Features902012 %E2%80%932013?opendocument&tabname=S ummary&prodno=2071.0&issue=2012%962013 &num=&view=
- Australian Library and Information Association. (2014). ALIA LIS education, skills and employment trend report 2014. Canberra: The Assocation.
- Broady-Preston, J., & Cossham, A. (2011). Keeping the information profession up to date: Are compulsory schemes the answer? *IFLA Journal*, *37*(1), 28–38. doi: 10.1177/-340035210396777
- Chawner, B., & Oliver, G. (2012). Keeping current: the evolution of postgraduate library and information studies education in New Zealand'. In A. Spink & D. Singh (Eds.), Library and Information Science Trends and Research: Asia-Oceania (pp. 47–67). Bingley, U.K.: Emerald Group.
- Combes, B., Hanisch, J., Carroll, M., & Hughes, H. (2011). Student voices: Re-conceptualising and re-positioning Australian library and information science education for the twenty-first century. *International Information & Library Review, 43*(3), 137–143. doi: 10.1016/j.iilr.2011.07.007
- Cossham, A., & Information Management and Services Governance Group. (2014). Needs analysis—current and future workforce needs for Information Management and Services TROQ [targeted review of qualifications]: Draft for consultation. https://imsqualreview.wordpress.com/needs-analysis/
- Cossham, A., Wellstead, P., & Welland, S. (2014). LIS undergraduate education in New Zealand: Development and contemporary issues. In J. T. Du, Q. Zhu & A. Koronios (Eds.), *Library and information science research in Asia-Oceania: Theory and practice*. Hershey, PA: Information Science Reference.
- Gibson, A., Miller, M., Smith, P., Bell, A., & Crothers, C. (2013). World Internet Project: New Zealand. Auckland: Institute of Culture, Discourse & Communication, AUT University.
- Hallam, G. (2013). Course Accreditation Review 2013. Canberra: Australian Library and Information Association.
- Harvey, R. (2001). Losing the quality battle in Australian education for librarianship. Australian Library Journal, 50(1), 15–22. doi: 10.1080/00049670.2001.10755938
- Harvey, R., & Higgins, S. (2003). Defining fundamentals and meeting expectations: Trends in LIS education in Australia. *Education for Information*, 21(2, 3), 149–157.
- Hider, P., Kennan, M. A., Hay, L., McCausland, S., & Qayyam, A. (2011). Moving from LIS to IS-L: Curriculum renewal at Charles Sturt University. Australian Library Journal, 60(3), 205–217.

- Irvine, J., & Cossham, A. (2011). Flexible learning: Reflecting on a decade of library and information studies programmes at the Open Polytechnic of New Zealand. *Library Review*, 60(8), 712–722.
- Lilley, S. (2012). Māori information sources and services: Delivering a reference course that meets the needs of Māori clients. *The Reference Librarian*, 53(1), 67–75. doi: 10.1080/02763877.2011.596087
- Lilley, S., & Paringatai, T. P. (2014). Kia whai taki: Implementing indigenous knowledge in the Aotearoa New Zealand Library and Information Management Curriculum. *Australian Academic & Research Libraries*, 45(2), 139–146. doi: 10.1080/00048623.2014.908498
- McCahon, R. (1999). Undergraduate library education and the workplace. *New Zealand Libraries*, 49(1), 10–17.
- Nastasie, D. L. (2012). Australian information education in the 21st century: The synergy among research, teaching and practice. *Education for Information*, 29(3), 271–286.
- New Zealand Qualifications Authority (n.d.).

  Qualification overview: Poutuarongo Puna
  Maumahara. Retrieved from http://www.
  nzqa.govt.nz/nzqf/search/viewQualification.
  do?selectedItemKey=RK0052
- Ocholla, D., Dorner, D., & Britz, J. (2013). Assessment and evaluation of LIS education: Global commonalities and regional differences—South Africa, New Zealand, and U.S.A. *Libri*, *63*(2), 135–148. doi: 10.1515/libri-2013-0011
- Partridge, H., Hanisch, J., Hughes, H., Henninger, M., Carroll, M., Combes, B., . . . Yates, C. (2011). Re-conceptualising and re-poisitoning Australian library and information science education for the

- 21st century: Final report 2011. Sydney, NSW: Australian Learning & Teaching Council.
- Partridge, H., Hider, P., Burford, S., & Ellis, L. (2014). Who are Australia's information educators? *Australian Library Journal*, 63(4), 275–291. doi: 10.1080/00049670.2014.966409
- Partridge, H., & Yates, C. (2012). A framework for the education of information of the information professions in Australia. *Australian Library Journal*, 61(2), 81–94.
- Statistics New Zealand. (2014a). 2013 Census quickstats about culture and identity. Retrieved from http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-culture-identity/#
- Statistics New Zealand (2014b). 2013 Census totals by topic. Retrieved from http://www.stats.govt.nz/Census/2013-census/data-tables/total-by-topic.aspx
- Wilson, C. S., Boell, S., Kennan, M. A., & Willard, P. (2012). Fifty years of LIS education in Australia: Research productivity and visibility of LIS educators in higher education institutions. *Journal of Education for Library and Information Science*, 53(1), 49–68.