

**Submission from the  
Australian Library and Information Association (ALIA)**



**to the Department of Innovation**

***2011 Strategic Roadmap for Australian Research Infrastructure***

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**Introduction**

The Australian Library and Information Association (ALIA) welcomes the opportunity to comment on the Strategic Roadmap for Research Infrastructure.

ALIA is the peak body representing the Australian library and information services sector and represents 6000 members, and the interests of over 12 million library users. The Australian library and information services sector operates in the local, state, territory and federal government, school, TAFE, university, research, health, hospital and business and corporate sectors.

We believe that, with its extensive range of traditional print primary research materials, electronic information services, digitised collections and public access points, the library and information services sector is a major stakeholder in the national research infrastructure.

**Support for other Submissions to the Roadmap**

The Submission by the Australian Library and Information Association supports the submissions made by:

National and State Libraries Australasia (NSLA)  
National Library of Australia (NLA)  
Council of Australian University Librarians (CAUL)

These submissions clearly outline the need for support for libraries in the research process, digitisation funding and support to ensure access to Australian content for all types of researchers.



## **The role of libraries in national research**

University Libraries provide a critical role in supporting research and industry linkages. There is increasing recognition of their role as an active partner in national research. University Library involvement in national research spans the entire spectrum of the research cycle. This includes:

- discovery and access to books, journals, multi-media and documentary research resources – mostly in digital formats
- provision of infrastructure, training and support for information discovery and for data management planning,
- advice on sources of research data, extending from documentary heritage to digital databanks across all fields of inquiry
- infrastructure and support for institutional repositories which store the research output of the institution
- the provision of infrastructure and support for original online publishing through journals and monographs
- data curation, whether in the home institution or through facilitation with other national and international archives, such as ASSDA or international archives and international subject specific archives
- digitisation of physical materials, such as theses, technical reports, images and research collections
- copyright advice, clearance and advocacy

University Libraries also play a key role in advocacy for eResearch, particularly in relation to open access to research outputs and open scholarship.

Australian University Libraries have been instrumental in establishing institutional research repositories, increasing the visibility, accessibility and impact of Australian research. Librarians bring an information management perspective to their role and take responsibility for the ongoing curation and preservation of research publications and research materials.

The number of items stored in institutional repositories ranges from 901 at a small predominantly teaching university through to 114,715 at one of the Go8 institutions.

1/3 of Australian University Libraries manages digital publishing (original digital journals, monographs, conference proceedings) for their institution.

32 Universities currently have data curation projects underway through the ANDS Research Data Commons Projects, all of which are either being led by the University Library or are partnerships with the University Library.

The National Library of Australia is also well placed to collaborate with the research sector in the development of Australia's research infrastructure. The NLA has experience in relevant areas such as digital library development, discovery services and digital preservation.

Australia's public libraries, including the National Library of Australia build safer, stronger, sustainable communities; promote social inclusion; support early literacy; make citizens healthier; facilitate lifelong learning; assist people to find jobs; promote innovation; provide facilities and skills to expand the digital economy; and, contribute to prosperity. Located in every local government area across the nation and at the heart of their local communities, public libraries are perfectly positioned to deliver results in Australia's digital future. Australia's public libraries continue to address the need for equitable community access to a wide range of educational, information, cultural and recreational services which are dependent on online information services.

Research infrastructure is not just significant for University Libraries, but for all types of libraries. Public libraries have the potential to significantly increase reach and user access. There are over 1500 public libraries across Australia with over half the population as registered users. Public libraries have infrastructure and ongoing budget streams through their local councils. Public libraries play an important role in preserving local collections and ensuring equity of access in the delivery of online resources to all Australians, including visiting and travelling researchers. Qualified and experienced library staff deliver training and assistance to users in accessing electronic information.

Special libraries such as those in research and government institutions, DSTO as one example, perform high level research tasks for the employees and researchers of those institutions. Health librarians assist medical researchers within hospitals and medical institutes to ensure current access to the latest materials required for their cutting edge research programs.

The Australian Library and Information Association advocates the development of an informed society that can partake and participate in skilled decision-making. ALIA also believes that freedom of access to information, and equality of access to information and research for all Australians are important in a thriving democracy. Accurate, relevant and timely information is the key ingredient to effective decision-making. Australia's long-term economic development is dependent on its ability to use information to make decisions and harness innovation that enables growth, progress and productivity.

The library profession contributes to an informed society by acquiring, organising, archiving, retrieving, using, synthesising and analysing information and thereby empowering users so that they can utilise this information in their decision-making and innovation processes.

Investment in libraries will generate economic as well as social, cultural and environmental benefits. Libraries sustain the community in social, cultural and environmental terms and contribute positively in terms of economic value, benefit and activity.

ALIA supports the development of a 21st century information infrastructure with libraries as the conduit for a sustainable knowledge economy.

Library staff are technically savvy and drive use of new tools that can enable community identity capture and curation. Libraries assist their communities to share local resources, local histories, link to national databases and preserve cultural collateral, especially indigenous materials.

Libraries will continue to work with all levels of government to ensure that Australian information and research is made available for the future. Historical or non-current information is equally important as the latest information in digitised forms, particularly for research purposes and must be made available for legal, cultural and historical reasons. It is also essential that Australian website based information is captured, stored and archived appropriately. The current national archive for long-term access, includes the National Library's Pandora service. Additional funding and support for the NLA's Pandora and Trove services will be important for Australia's research infrastructure.

### **Training for academics, library staff and students**

It is critical that funding be made available on a continuing basis to ensure adequate skills training. For sustainability, such training in research skills can be conducted by libraries, whether it be university libraries or state or public libraries. In addition to user training, ongoing funding and resources to train library staff in the diversity of internet and e-research products and services are required so that they are able to meet users' expectations.

### **Australian Content**

Further work and funding is required to ensure that there is sufficient Australian content available online. Digitisation of Australian collections, such as those in libraries and museums and specialist organizations such as AIATSIS is essential for quality content for the Australian curriculum and for all Australians to access their cultural history. The submissions by the National Library of Australia and National and State Libraries Australasia outline digitisation requirements in more detail.

### **eResearch**

With the development of ANDS, University Libraries have become increasingly involved in eResearch activity, especially data management. CAUL members bring an information management perspective to their role and are aware of researchers' broader needs. As researchers demand access to data increase in an eResearch era, they will be more receptive to interventions designed to improve data management practice for use and reuse of the data. University Libraries play an important role as eResearch infrastructure providers.

*1.A.1 What are your views on the key future research directions identified and are there other key areas that have not been included?*

The Expert Working Group (EWG) has noted that key attention needs to be paid to the inter-disciplinary integration across natural and social sciences, economics and the humanities. The need for a common approach to data discoverability, accessibility and interoperability is essential in this context and has been highlighted by the EWG. At the same time the current investment in data collection systems appear more discipline-centric than providing support for integrated data sets.

These issues are raised initially here as they intersect a number of questions raised throughout the discussion paper that are relevant to all capability areas and lead to the following perceptions.

- i) Repositories of data support the collegial nature of research and often emerge from specific projects and projects teams or as in some overseas examples with support from the Academy. The value of integrated data sets and cross-disciplinary research is recognised, and achievable, but has proven to be a secondary priority.
- ii) A network of repositories conforming to standards for metadata and interoperability can be built on good data management practices. The interventions coming from ANDS have started to raise awareness and build some capacity, although in quite discreet projects. Other eResearch infrastructure investments have potential to foster collaborations, such as NeCTAR, but are just beginning.
- iii) Managing data and making it accessible is complex with often legislative, contractual and cultural barriers to overcome before one can even approach the technical challenges.

It is therefore to be expected that cross-disciplinary needs will be met through extending current activities and the emerging knowledge base. The integration across natural and social sciences, economics and humanities provides an appropriate focus. This approach is one that can be supported by the libraries and librarians in the university and public sectors.

*1.C.1 What are your views on the existing funded facilities, including their ability to meet the current and future research needs?*

ALIA supports the focus on accelerated investment in the necessary storage and access infrastructure and to ensure that all the data is accessible, discoverable, interoperable and gathered and stored at the finest scale possible. The Australian

National Data Service (ANDS), Research Data Storage Infrastructure (RDSI) project and the National Research Network (NRN) projects are contributing to improving these aspects, but more work is required.

*2.A.1 What are your views on the key future research directions identified and are there other key areas that have not been included?*

Investments in health research also include investment in library resources for hospital libraries, and those libraries that support medical research institutes.

*4.F.1 Are there other programs/issues/developments not listed that you consider could be a driver for future research infrastructure investments or may impact on such investments?*

The DSTO Research Library supports and is integral to DSTO's research into applying science and technology to protect and defend Australia and its national interests. The DSTO Research Library works closely with the wide range of researchers working in the DSTO research facilities across Australia. The Research Library maintains both print and digital repositories of technical and scientific reports.

## Cultures and Communities

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Australian researchers rely on Australian libraries for resources to undertake research in the areas of society, identity, economy, business, governance, history, culture and creativity. Complex issues of national and global significance require access to global information, resources and materials, which libraries 'find and get' for researchers.

Libraries already provide an important component of the connected online knowledge network accessible directly via researchers' desktops. Library provision of integrated services and tools to create, capture, store, share, manage, manipulate and analyse diverse data collections and resources.

Libraries already work in many of the suggested areas of significance including:

- Social cohesion, diversity and equity;
- Health and wellbeing;
- Identity and community;
- Indigenous knowledge and opportunity;
- Sustaining culture and creativity.

*5.A.2 How should we prioritise research areas for this sector when developing Australia's research infrastructure?*

Libraries will be directly providing integrated services and tools to create, capture, store, share, manage, manipulate and analyse diverse data collections and resources.

Australian libraries, through NLA's Trove and other services will continue to link individuals with virtual research communities.

Libraries would welcome support and facilities which would significantly scale up the capacity of Australia's social and cultural research sector and therefore dramatically increasing the sectors ability to offer solutions to research critical issues within Australian society.

*5.B.1 What are your views on the research infrastructure Capability areas identified, including their relative priority and their ability to support the current and future research needs?*

Libraries already contribute to:

(1) data creation – through digitisation, systematic capture of ‘born digital’ materials, and support for national survey instruments; and

(2) data management – including curation and dissemination through coordinated strategies and platforms.

University Libraries are already providing critical support to data creation and data management. At an institutional level, this is seen through initiatives funded under Seeding the Commons projects, where Library staff are:

- developing data management plans
- training academic staff in data management planning
- curating research data
- developing policies, procedures and guidelines for data management
- developing online tools to facilitate data management planning
- establishing communication and promotion programs to ensure sustainability

At a national level, libraries cooperate on initiatives such as the ASSDA initiative, providing state based data management support and data curation, as well as specialist area development, such as the Aboriginal and Torres Strait Islander Data Archive (ATSIDA).

Without ongoing support for these types of institutional and discipline initiatives, important programs will never reach capacity and may indeed become unsustainable.

Libraries are acutely aware of how much data of interest to local researchers engaged with understanding cultures and communities remains in analogue form which requires transformation to digital formats. Collaboration and the use of centres of expertise, such as with the National Library of Australia will facilitate digitisation of local collections.

The library community supports further work to digitise AIATSIS collections that are important for indigenous research data.



*5.C.1 What are your views on the existing funded facilities, including their ability to meet the current and future research needs?*

ALIA welcomes further ongoing funding for AustLit through the National eResearch Architecture Taskforce (NEAT) will provide some infrastructure for the Australian literature research communities.

The ASHER funds received by University libraries to establish institutional repositories was a valuable government initiative. However further funding is required to continue the development of repositories to capture, disseminate and most importantly curate for future generations Australia's research datasets.

### **eResearch infrastructure needs**

A possible eResearch facility could systematically integrate and consolidate our nation's most significant data collections and resources.

ATSIDA has identified many occasions where data should be linked to material held by other collecting agencies but there is no funding available to develop the networks needed to facilitate this.

There are many kinds of data relevant to the understanding of cultures and communities that would be made accessible through an eResearch facility, including data as diverse as statistics, oral histories, music, film and text. These exist in various media formats, and this has implications for storage, description and online deliverability.

While the roadmap suggests that promoting education and training for 21<sup>st</sup> century social and cultural research underpinned by ICT is crucial in building the necessary core competencies, domain specific skills and best practices, there is not significant discussion about what is required. Many Australian research stakeholders, including libraries, have a need to further develop staff skills in areas such as digital collection development, data curation and collection digitisation. The inclusion of programs to support appropriate skills development in this area is an essential component of the Roadmap.

*5.D.4 For future development of possible infrastructure, can you add to the list of exemplary Australian digital research projects in this sector?*

The NLA will fund the development and operation of Trove, but ALIA supports the proposal that as part of the 2011 Strategic Roadmap that Trove be recognised as an important component of research information infrastructure, since it aspires to expose in a comprehensive manner the content of Australian libraries, other collecting institutions, and digital collections.

*5.D.5 Can you provide examples of important, currently distributed collections that could be unified by use of the suggested infrastructure?*

Many local public libraries contain collections of cultural significance that will require digitisation support over time. These collections provide primary sources for future research needs, especially in the areas of indigenous studies, local culture and creativity and local community identity.

*5.D.6 Can you provide examples of research resources that are currently inhibited by lack of interoperable data and the ability to link to existing research repositories?*

ALIA agrees that in order to identify, manage and improve these nationally important collections, and make them accessible and usable, it is necessary to develop standards, services and environments through a nationwide approach and on a vastly expanded scale.

Promoting education and training for 21<sup>st</sup> century social and cultural research underpinned by ICT is crucial in building the necessary core competencies, domain specific skills and best practices. Advanced digital literacy skills in the eResearch age will be critical and libraries of all types assist to develop skills in our customers of these skills.

*5.E.1 What are your views on the cross-disciplinary requirements identified, including their relative priority and ability to support the current and future research needs?*

With the limited number of humanities, arts and social sciences projects of any significant scale, ALIA would like to note that more support is required in this area.

Australia's library staff welcome being able to learn from experience of programs and policies worldwide and we will work together to ensure that future Australian investments in these areas are complementary to those being made offshore, ensuring maximum compatibility and interoperability.

*5.F.1 Are there other programs/issues/developments not listed that you consider could be a driver for future research infrastructure investments or may impact on such investments?*

ALIA notes that there will be a significant amount of new infrastructure that will be completed in the next two to three years, however there is no evidence of significant efforts for digital curation and the development of new tools to support the analysis and reuse of data.

ALIA suggests targeted and immediate funding support for:

- Australian National Data Service (ANDS), the Australian Research Data Common (ARDC) and ASSDA Services for eSocial Sciences Project (ASeSS);
- collaboration tools and services supported by investment in the Australian Research Collaboration Service (ARCS) and the National eResearch Collaboration Tools and Resources (NeCTAR) Project; and

Collaboration is an essential component of an effective national research and innovation system. However, competition remains the primary critical mechanism for obtaining research grants and ensuring research excellence. Collaboration across agencies responsible for funding both research activity and research infrastructure is also required.

## **STRATEGIC ROADMAP FOR AUSTRALIAN RESEARCH INFRASTRUCTURE RECOMMENDATIONS**

ALIA recommends:

1. That the Department of Innovation continue to consult with library associations, the National Library of Australia and the Council of University Librarians about future changes to the eResearch infrastructure environment so that the library sector can inform changes and implement and assist improve integration.
2. The development of programs to ensure that the Australian public has enduring access to electronic publications for research purposes. This includes sufficient funding for the National Library of Australia's Pandora and Trove services.
3. That ALIA work with the Australian Government to develop a range of advanced skills programs through Australian libraries to support e-Research, as well as internet education and skills training in public libraries for future researchers - digital literacy skills for all Australians.
4. That the Department recognise that libraries within universities and institutions will require support to enable advancement of skill development in the areas of digital collection development, data curation and collection digitisation for their staff to support eResearch projects.
5. That the Australian Government provides funding to the National Library of Australia for digitisation projects to facilitate access to a greater range of Australian content.
6. That funding be provided to allow for the establishment of nationally significant, multi-institutional digital collections to support eResearch in the humanities and social sciences.

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