

# INQUIRY INTO THE ROLE AND POTENTIAL BENEFITS OF THE NATIONAL BROADBAND NETWORK

## **Submission:**

**National & State Libraries Australasia**

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## **1. Summary**

*To the maximum extent practicable, information research and content funded by Australian governments – including national collections – should be made freely available over the internet as part of the global public commons*

Venturous Australia, Review of the National Innovation System  
Dept of Innovation, Industry, Science & Research, 2008

All information is now expected to be online. National & State Libraries Australasia (NSLA) represents the National, State and Territory Libraries of Australia and New Zealand and the combined collections held in these ten major publicly-funded research libraries represent a significant portion of our nations' cultural heritage. These collections are our irreplaceable assets, gathered and invested in by governments for more than 150 years and currently valued at more than AUD5 billion. To provide equity of access and to deliver a return on this investment, these collections must be digital and available for access via the internet.

Digitisation makes information discoverable by everyone and gives access to those residing in regional, rural and remote areas who cannot access physical libraries. The National Broadband Network (NBN), with its increased speed and capacity, is critical infrastructure for Australia. The NBN will enable the community to use, adapt, create and transform our collections as they become available in digital form and more readily access the global information network. File sizes are increasing as film, oral history, research data sets, archival collections and high quality images are digitised and made available online. The NBN will have the capacity to carry this content to all Australians.

Our online collections support research, knowledge-building and innovation within the education, arts, cultural and community sectors. These areas represent the economic underpinnings of an informed and engaged Australian society. Over AUD20 of economic benefit is returned to our communities for AUD1 invested in digitisation (Access Economics, 2008, using the “user approach”).

The scale of digitisation required in Australia is enormous - though the funding required to make important progress in the next five years is comparatively small. NSLA advises that AUD100 million will shift Australia to a mass-digitisation model and begin to make our culturally-significant assets visible and available online.

To date, digitisation has concentrated on selected parts of the heritage collections of pictures, manuscripts, maps and historic newspapers, with great achievement, though still only a fraction has been made available online. Australia lags many other countries in directing extensive public funding to mass digitisation and the pressure to address this is growing. Failing to digitise will result in a much-reduced Australian cultural presence on the web. For the community, finding Australian content via the NBN will be critical to its use and reputation.

Along with the digitisation of our collections, a central and inter-linked challenge for libraries is the long-term preservation of digital assets whether born-digital or digitised from another format. The processes to digitise are tested and robust and all that is required to gear up to mass digitisation is funding. Preservation of digital assets is the more complex challenge. To both preserve and provide access in the future to digital assets created on many generations of technology platforms is an evolving and critical body of work.

The digital content that requires preservation for the future is growing exponentially, encompassing more types of materials and collections. It includes personal and company archives that are now predominantly born-digital, as well as the need to select and preserve web content. Websites are fluid with constantly changing content and only a small fraction are currently selected and preserved at designated intervals. Much web content is only valid when it is current, but also much valuable content is lost as the content churns. The use of ebooks on ereaders and tablets is also shifting to mainstream and is expected to continue to rise sharply.

The challenges for libraries are complex as we shift to a world defined by digital information. The first phase has evolved over the last twenty years providing new services and new content, and the NBN will be the infrastructure for the next phase. In parallel to the roll-out of the infrastructure, Australia must invest in digitising Australian content.

## **2. Open and easy access to information**

*Our vision puts people at the centre of our services*  
Re-imagining Libraries Strategic Plan, NSLA, 2008

Recently there has been a broad societal push for open and easy access to information. This reflects the [vision](#) that NSLA libraries have for making our information accessible to all. In Australia, [Creative Commons](#) licensing is being adopted across a number of government jurisdictions and beginning to trickle down through agencies and departmental structures. The national [innovation](#) and [education](#) agendas centre on the concept of open and flexible use of information.

The opportunities of an innovative knowledge economy begin with open access to prior intellectual and research endeavours and to the growing global stores of data. This contrasts with the move of many commercial companies and media providers towards a mix of free and paid digital content.

The New Zealand Government's Open Access and Licensing framework ([NZGOAL](#)) released in July 2010 is standardising the licensing of government copyright works for re-use using Creative Commons licenses and recommends the use of 'no-known rights' statements for non-copyright material. It is widely recognised that re-use of this material by individuals and organisations may have significant creative and economic benefit for New Zealand.

The practice of closed academic or institutional repositories holding tightly to research data sets is also being purposely fractured by government. The significant funding directed to the Australian National Data Service ([ANDS](#)) is a practical sign of this change. ANDS describes the research data held across Australia, promoting visibility and re-use. Academics from many fields have always shared data among specialist groups and this trend is increasing, using social media tools to support new dispersed scientific and research collaborations.

For libraries, opening up Australia's collections involves addressing digitisation of collections, and the long-term preservation of digital assets through scaled-up public funding. The third requirement is effective search and access to this digital content. Metadata is fundamental to this and libraries have led the way in developing integrated metadata stores and standards to underpin current and future discovery systems.

The shift to greater innovation in our community through open and easy access to information will be greatly assisted by the roll-out of the NBN network.

### **3. Libraries and online education**

*I'm afraid we all need to take a deep breath, and accept the increasing centrality of the moving image at the heart of learning – and the serious opportunities this offers to both the teacher and the learner*

Lord Puttnam, Educating for the Digital Society, UK, January 2010

As faster internet speeds, greater capacity and digital enablement technologies are developed and delivered, the opportunities for enhancing teaching and learning expand exponentially.

Digitised Australian materials and born-digital Australian resources - whether they are local and national newspapers, government records and reports, films, oral histories, maps, logs, diaries, prior research into community activities, military, climate or family history – contribute the local content to support learning activities in schools. Providing digital access to a small selected slice of our history limits, channels and distorts learning now and in the future.

The promise of the NBN, as displayed in this advertisement below from June 2010, should be to link schools to Australian digital content as well as global museums and libraries. Our cultural presence in learning and an understanding of the diversity and challenges of Australian life through access online to the documentary record is dependent on digitisation and digital preservation.

Advertisement

Imagine exploring a museum in Europe and being back in time for play lunch.

The National Broadband Network will connect Australian schools and universities to a world up to 100 times faster than many of us experience today.

Kids from Broome to Bondi will increasingly have equal real-time access to interactive distance learning. Just imagine exploring museums and libraries on the other side of the country or indeed, the world. No longer will location be a barrier to learning and even the most isolated of students will be able to benefit from faster and expanded access to educational resources.

It'll touch and enhance their lives in ways we've only dreamed of and others we haven't yet imagined.

To find out how it effects you, visit the website.

- A \$43 billion investment in Australia's economy
- A mix of fibre optic, next generation satellite and wireless technology
- Fast broadband access nationwide
- An 8-year rollout plan and work has already begun
- Location will no longer be a barrier to world-class education

australia.gov.au/nbn

Connecting Australians to a better future.

**National Broadband Network**

Australian Government

Authorised by the Commonwealth of Australia, Capital Hill, Canberra.

Advertisement in The Age, June 2010

#### 4. Libraries, community and social inclusion

*... in "Internet time", five years is at least one information generation ... in 2005 there was no Twitter (launched July 2006), Facebook hadn't opened to the general public (September 2006), and the first iPhone was more than three years away (January 2009)*  
 OCLC, Perceptions of Libraries, 2010

Library buildings have always provided safe, welcoming community spaces but they are now highly valued for the access they provide to computers, wireless broadband and a wide range of digital literacy and community programs. In 2008, the Library Council of New South Wales concluded that for every one dollar invested in public libraries, AUD 4 of economic benefit is returned to the community, delivering on the government's social inclusion and literacy goals for the community. Across Australia, almost 10 million people (around 46% of the population) are public library members and many more use them as study spaces, for online research and to browse. During 2009-2010 there were more than 233 million pages viewed on the websites of the ten major libraries that are the members of NSLA.

A recent report from the USA ([OCLC, Perceptions of Libraries, 2010](#)) illustrates the role of libraries when communities are facing reduced economic circumstances. The report noted that Americans with a negative change to their employment status, such as job loss or reduction, are 50% more likely to visit the library weekly than those not affected. Of this negatively-impacted group, 76% reduce their spending on books. They come to libraries to fill the reading gap, to use computers to seek employment, and to improve their skills and knowledge.

Improved broadband services, with consistency in internet speeds and connectivity, enable libraries to continue to extend their reach and to reliably provide internet-based library services and programs to Australians regardless of their geographic location. These include online training and skills programs, exhibitions, connecting with experts, and rich engagement with learning networks. Delivering events and learning programs digitally leads to significant cost efficiencies especially in rural and remote areas, and supports productivity increases across the country. Accessibility and ease of use are proven factors in increased participation and engagement.

## 5. National digitisation challenge

*Digitise the collections of Australia's major national institutions by 2020*  
"Top Ideas – Creative Australia Stream", Australia 2020 Summit,  
Government Response, April 2009.

There is recognition in Australia and in many other countries of the importance of digitisation in improving educational, social and employment opportunities. Many countries have committed significant funding:

- France committed US\$1.1 billion in December 2009 for the digitisation of French-language books;
- The Japanese government has provided a supplementary budget of US\$137 million to digitise 900,000 items in 2009-10;
- The German Digital Library (DDB) will come online in 2011;
- Norway has announced in 2009 that they will digitise the entire collection of the National Library of Norway;
- In 2010, the National Library of the Netherlands announced its plans to digitise all Dutch books, newspapers and periodicals from 1470 onward;
- In May 2010, the British Library announced it will be working with publisher Brightsolid to digitise 40 million newspaper pages from 52,000 newspapers from across the United Kingdom, this is one of several UK digitisation initiatives;
- On 1 June 2010, the New Zealand government committed NZD12.5 million to develop a Government Digital Archive; and
- Government and philanthropic donations in the United States are supporting digitisation of the Library of Congress and other collections, including the American Memory, National Digital Newspaper Program and other online collections (for example, a grant from the Sloan Foundation to digitize books in the public domain has resulted in the digitisation of more than 52,600 volumes, totaling approximately 9.3 million images by September 2009).

The Librarian of Congress, James H. Billington, interviewed in the [New York Times](#) in January 2011, announced that planning has commenced on a US national digital library, "a gigantic digital library that would make the cultural heritage of the country available to everyone". He

notes that the US is “playing catch-up ...as the United States finds itself trailing Europe and Japan ... [creating] a real digital library divide”.

The digitisation of Australia's historic newspapers has been a vanguard project coordinated by the National Library of Australia and contributed to by all the members of NSLA (see Appendix 2). It has proven the technology and processes for mass digitisation, tested the interfaces and response from the community, developed expertise and provided accurate costing. Another 10 million newspaper pages are ready to be digitised when funding is available and other resources can be made ready rapidly.

Long-term preservation of digital assets is a greater research and development challenge. Investigation and testing of models and standards for preservation are underway in many countries and Australia must move to ensure its digital assets are maintained in the interim and that appropriate solutions for content are adopted before critical digital content is lost.

*...economically sustainably preservation - ensuring the ongoing and efficient allocation of resources to digital preservation – is an urgent societal problem. It is urgent because digital information is inherently fragile, prone to information loss and degradation. Preservation insures against multiple risks to information assets over time.*

Blue Ribbon Taskforce on Sustainable Digital Preservation Access, USA, 2010

## **6. Recommendation**

The Australian government is investing in high capacity communication infrastructure and must also invest in Australian digital content to be carried on the National Broadband Network. Our cultural heritage requires digitisation and the mass of Australian born-digital assets must be effectively preserved for the future.

National & State Libraries Australasia recommends national action in parallel to the roll-out of the physical infrastructure. The collections and the expertise exist in our libraries to move quickly and to greatly increase the Australian content available via the NBN following allocation of funding.

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## Appendix 1

### Members of National & State Libraries Australasia:

ACT Library & Information Service	State Library of Queensland
National Library of Australia	State Library of South Australia
National Library of New Zealand	State Library of Tasmania
Northern Territory Library	State Library of Victoria
State Library of New South Wales	State Library of Western Australia

### In 2009-2010:

<b>11.4 million</b>	people visited our libraries;
<b>233.4 million</b>	pages were viewed on our websites;
<b>1,018 terabytes</b>	of digital collections were stored;
<b>\$36 million</b>	was spent purchasing resources for collections;
<b>\$5.3 billion</b>	was the total asset value of our collections; and
<b>\$1.06 billion</b>	was the total asset value of our buildings/sites.



Mr Alan Smith  
Director, State Library of South Australia &  
Chairman, National & State Libraries Australasia

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## Appendix 2

### Case Study: Historic Australian Newspapers Online

Historic Australian Newspapers, 1803 – 1954, previously available only on microform or in decaying bound volumes, began to become available online in August 2008. This major digitising effort has been coordinated by the National Library of Australia and contributed to by all the members of NSLA as part of the Australian Newspapers Plan (ANPLAN). It is available through TROVE, the portal to Australian content, [www.trove.nla.gov.au](http://www.trove.nla.gov.au). As at October 2010, there are 30 million fully-searchable articles from selected newspaper titles available, with plans to deliver a total of 4.4 million newspaper pages (40 million articles) by the end of 2011.

Currently the content is primarily from one major metropolitan newspaper from each state and territory across Australia. Another 10 million pages, particularly from regional Australia and from the other metropolitan newspapers, are ready to be digitised when funding is available. The estimated cost to make one newspaper page available online is \$2.956.

In the first 12 months of the service to August 2009, there were 787,000 unique users of the online newspapers site – a far greater number than could ever have accessed historic newspapers in their physical format. Since then Australian Newspapers have become the most accessed part of the TROVE website. They are used for a very wide range of purposes across Australia and internationally. Some examples are: re-creating the climate record; tracing the spread of diseases such as influenza; and discovering the social, environmental, family, political and commercial history of communities.

As stated by a Queensland researcher, *“any day of any month of any year if there is a story or a message, it will be found in a newspaper – they are the eyes and ears of communities and they are an essential research resource.”*

The online newspapers service shows both an image of the original newspaper as well as the electronically translated text. This text allows every word in every article to be searchable online, though with an unavoidable error rate. The public are invited to correct the translated text if they see a mistake and the response has been extraordinary. Since August 2008, 27 million lines of text have been corrected by more than 9,000 members of the public. The top text-correctors are recognised on the front page of the site and the feedback from text-correctors and the users of the service has been overwhelmingly appreciative.

Some comments:

“In the last decade or so I’ve spent probably thousands of hours tracking down historical, biographical and cultural material in old newspapers ... So for me, this newspaper digitisation project is just something else ... don’t stop ... keep going!”

“I’ve shown this resource to over 100 history students and they were all delighted with it.”

“This is a wonderful resource and so valuable for folk who can only research online. I look forward to continuing search successes and am happily correcting text when I can.”

More information at [www.nla.gov.au/ndp](http://www.nla.gov.au/ndp)

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