

**AUSTRALIAN GOVERNMENT
THE DIGITAL ECONOMY: OPENING UP THE CONVERSATION**

29 November 2017

Museums Galleries Australia welcomes the opportunity to provide a submission on the topics and questions in the Consultation Paper on the Digital Economy Strategy.

We will address some specific Questions and Challenges in turn, but first will outline who we are and what we do, and stress the importance of the cultural sector in contributing to and benefiting from the digital economy.

Who we are

Museums Galleries Australia is the national association and peak advocacy body representing museums and galleries. We encompass a wide and diverse range of national, state, regional and community museums, galleries, historic sites, botanic and zoological gardens, research centres, Indigenous cultural centres, and Keeping Places across Australia.

All of our members are, however, linked by a shared dedication to culture, the arts, scientific, natural and cultural collections, and the communities they serve. They understand that Australian cultural life is a dynamic ecosystem that generates creativity and innovation and contributes to the social and economic wellbeing of the country. Attachment A provides a short profile of the organisation and a snapshot of the diverse range of member institutions.

MGA is also a service and professional development organisation. We seek to enhance the value of Australia's collections, public programs and stories by sharing knowledge, developing skills, inspiring innovation and providing leadership and the authoritative voice in protecting and promoting our arts, science and cultural heritage.

We build on a history of museum professional association activity that extends back to the 1930s, have branches in every state and territory, and support professional national networks of expertise. This submission draws both on the lived experience and future planning of museums and galleries throughout Australia, and state, national and international research, expertise and standards.

Our most recent relevant achievement

In 2015, MGA initiated the first ever collaboration of GLAM Peak (galleries, museums, libraries archives and historical societies' peak bodies) that is focusing on an integrated approach to expanding Australia's digital access to collections and meeting the 21st century's requirements for a knowledge economy. <http://www.digitalcollections.org.au/glam-peak>

In 2016, Stage One, funded by the Commonwealth Government through the former Catalyst Arts Funding Program, developed a draft national framework and implementation strategies, and a case-study based toolkit in prototype.

In 2017, Stage Two, also supported through the Catalyst Fund, together with significant in kind support from GLAM Peak bodies and digital technology partners, is refining the framework, running hugely popular regional workshops for the sector based on the toolkit, and developing

guidance for integrated Digital Access to Collections Plans in each state and territory. Tasmania is ahead of the pack, in creating and committing to a collaborative model backed by all government cultural institutions.

Museums and galleries

Museums and galleries are hugely trusted institutions in civil society. Research by the American Alliance of Museums (Washington) finds that:

Museums are considered the most trustworthy source of information in America, rated higher than local papers, non-profits researchers, the U.S. government, or academic researchers.

In fact in the US:

Museums are considered a more reliable source of historical information than books, teachers or even personal accounts by relatives.

In Australia, research carried out by independent market research company IPSOS for the Museum of Australian Democracy at Old Parliament House, Canberra, reveals that museums are very high on the list of institutions that are trusted by Australians.

The cultural sector

The cultural sector is the parallel source of knowledge to the formal education system and museums and galleries, as core parts of this sector, are fundamental sources of information, learning and engagement for people of all ages. These institutions encourage curiosity, creativity and critical thinking, offer rich aesthetic and emotional experiences through art, history and story-telling, and enable people to access objects and collections in ways that enrich lives and society. Furthermore, they help foster the creative industries which are one of the engine houses of the economy. (Darren Henley, *The Arts Dividend: Why investment in culture pays*, 2016)

Vital statistics

98% of Australians engage with the arts. (Australia Council National Participation Survey 2017)

- Over 2,500 museums and galleries across Australia
- Over 50,000 Australians volunteer in museums and galleries
- In 2015-16 over 10 million people visited the national collecting institutions

More broadly, in 2013 Victoria's cultural and creative economy accounted for 8% of the state's economy, employed more than 220,000 people, and contributed \$22.7billion in gross value add.

The challenges and questions

MGA, representing our broad spectrum of member organisations, has a number of comments on several specific questions.

We also support the comments and advice in the submissions prepared by the Council of Australasian Museum Directors (CAMD) and the Australian Library and Information Association (ALIA).

It is important to note at the outset that "Australia has always been one of the leaders in this area, from Australian Museums On Line ([AMOL](#)) in the late 1990s to the National Library's Trove and, for natural history collections - the Atlas of Living Australia ([ALA](#)) - collection sharing and collaboration has been a part of the cultural sector's digital innovation here for well over 20 years hampered by uneven funding and national network connectivity." (Seb Chan, ACMI 2017)

Question 1. How are advances in digital technology changing the way you work, your industry, and your community?

As the Consultation Paper notes, we live in a rapidly changing environment: a world of immense social, environmental, economic and technological change. This is especially pertinent for our museums and galleries and how they serve their communities and the nation. The CSIRO's Global Foresight Project identifies six 'Mega trends', two of which are significant in this context:

- Great Expectations: expanding consumer and societal expectations for services, experiences and social interaction; and
- Virtually Here: increased connectivity, impacting shops, offices, cities, governance models and lifestyles.

More recently, the American Alliance of Museums' Centre for the Future of Museums reports in its Trendswatch of 2017, that *The Rise of the Intelligent Machine* is now one of the key dominant trends for the sector.

A range of museum-led audience research is also revealing changing contexts, behaviours and expectations. These institutions have long recognised the actuality and potential of digital transformation and there are numerous examples of the powerful ways in which they are harnessing, exploring and adapting digital technologies and encouraging digital literacy.

Better access is increasingly regarded as core business by all cultural institutions. This encompasses physical and online access (as well as intellectual – that is a range of public programs for people of differing levels of ability, age and engagement).

On-line access to collections has been growing steadily over the last decade, as an integral part of each institution's mandate for accessibility. The acquisition and management of digital collections and enabling digital access have become very much part of the mainstream activities of the institutions rather than separate streams. Digital approaches are also impacting the ways in which exhibitions are researched, developed and communicated.

While digitisation and access to collections has still not been comprehensively implemented in Australia, major museums across the country report that now on average more than 2/3 of their visitation is virtual compared with 1/3 physical visitation through the door. With increased digitisation cultural institutions will be able to turn the traditional museum model on its head, where instead of a minority of the collection accessible in galleries and exhibitions at any one time, entire collections will be accessible to specialist and general audiences worldwide.

New technologies such as Virtual Reality and Augmented Reality are also used to achieve heightened emotional responses in museums around the world. These digital technologies enable full immersion, show objects at scale, and place them in context. Meanwhile opportunities to connect audiences through technology such as Twitter and live-streaming spawn such programs as '100,000 Kids Touring 10 Museums' – extending history and education to disadvantaged children in China's rural areas.

Along with these different methodologies and technologies comes the ability to tap into expanding sources of data. The State Library of NSW is providing online access to huge amounts of public biometric and socio-economic data, suggesting this as source material for social history story-telling. In other areas, our museums are moving beyond the vast resources of their science and natural history collections to collaborate on 'big data' sociological research programs with academic institutes, to enable new forms of historical enquiry.

See, for example, Victorian Collections <https://victoriancollections.net.au/>

Humanities Networked Infrastructure (HUNI) <https://huni.net.au/#/about>

The Dome Lab - "*Travelling Kungkarangkalpa*" - a digital sanctuary in the National Museum of Australia's current *Songlines* exhibition <http://www.niea.unsw.edu.au/research/projects/domelab>

“Live social media as museum object”, “Using Augmented Reality in Galleries and Museums”, and “Significantly Digital” - three articles Museums Galleries Australia Magazine Vol. 25(2) 2017 <https://www.museumsaustralia.org.au/museums-galleries-australia-magazine>

As a sector, it is not simply collections access that is facilitated by digital. Our role in the visitor economy is predicated on giving visitors and tourists timely appropriate information and responsive service, which increasingly means through provision and engagement with sophisticated digital tools across multiple agencies (such as media, transport infrastructure, and tourism marketing).

Conclusions regarding technology in MGA’s Environmental Scan that was carried out in August 2017, included:

- Developments in technology, specifically AI, VR and augmented reality and facial recognition, are presenting great opportunities for museum and galleries
- Technology is now a primary means for Australians to access and engage with arts and the cultural sector
- Technology is the primary means of accessing scientific material in cultural institutions, particularly through the Atlas of Living Australia
- Digital inclusivity Australia wide has risen with increased engagement, access and ability to use technology
- Primary use in cultural sector: to access skills training and engagement with institutions
- Technology is a primary means for member organisations to interact with members and the general public. Twitter is surprisingly situated as the most useful.
- Technology and access to professional development programming are the central concern of branches and for lapsed members.

In sum, digital technologies are critical to the future of the sector.

***Question 2: What is your vision for an Australia that thrives in a digital economy?
Where would you like to see Australia in five, 10 and 20 years’ time?***

Providing digital access is the most effective way of ensuring Australian arts, scientific collections, and heritage, in all its many forms, can be discovered and enjoyed by audiences in Australia (both in cities and in the regions and remote areas) and worldwide. There are many stories about the positive impact digital access has had on the lives of individuals and there are a number of examples of how digital access has led to important scientific and policy outcomes. (see Attachment B).

In GLAM Peak’s words: “Imagine the difference it would make if Australia’s arts and cultural heritage collections were all easily available online:

- Artists could take inspiration from vintage designs and the works of master creators
- Teachers could bring Australian citizenship to life through objects and stories
- Researchers could discover the information they need to produce valuable new insights
- The creative industries could develop new products, and services including games, merchandise and tourist experiences
- Families could explore their own histories
- Everyone, irrespective of socio-economic factors, diversity, location and disability would have the same opportunity to access collections online.

Cultural collections are not only concerned with historic materials, they also feature the work of living artists, craftsmen, designers, writers, photographers, filmmakers, digital creators, public digital content and so on. Digital access to these works can benefit the artists involved as their

exposure to the world will be greatly expanded. Digital access to cultural collections helps inspire today's artists, writers and makers, through discovery of the past... modern creators can take advantage of the opportunity to 'stand on the shoulders of giants'."

Question 3: What is the role of government in achieving that vision?

The current policy framework is patchy and the associated resourcing and support is inadequate, most significantly for volunteer and council-managed museums and galleries – many of which feel isolated, vulnerable and lacking the ability, knowledge or skills to effectively carry out digital access programs or organisational sustainability strategies.

The intermittent and comparatively low level of Commonwealth, state and local support and interest in the museum and gallery sector is reflected in both the lack of strategic planning for the sector and in the ongoing poverty and struggle of many regional and local community museums, galleries and keeping places.

The NCRIS Roadmap includes the development of collaborative Platforms for Humanities, Arts and Social Sciences (HASS) as one of its nine focus areas, and national investment in this area could emulate the success of the Atlas of Living Australia, which has been a game changer for access, discoverability and use of biological collections held by museums.

There are opportunities to make strategic national and state investments in digital access to the full range of collections large and small. A coherent investment program could be a significant positive influence on the long-term development of the broad museums and galleries sector and the healthy and productive functioning of Australian society.

In sum, there is a need for a more coherent and equitable cultural strategy for Australia that guides and prioritises both capital and capability investment in all levels of cultural activity, and in this case especially digital technologies and capacity building for institutions and communities.

Question 4: What are the key disruptive technologies or business models that you are seeing? What do you predict is on the horizon in five, 10, 20 years' time?

The Centre for the Future of Museums notes that one of the hardest things to project about the future is the rate of adoption of a given technology. They quote Roy Amara at the Institute of the Future who encapsulated this truth in Amara's Law, which states that we tend to overestimate the impact of new technology in the short term, and underestimate it in the long term.

The Centre predicts that connected devices will be directly integrated into the fabric of museums and exhibits of every kind. AR and VR will revolutionise student experiences but will also "highlight the multi-sensory advantages of going to a museum in real life."

Significantly, social media and new technology are also changing the dynamics of power: changing the way people interact with each other, within communities, with the media and institutions, including with museums and governments. Rising expectations both challenge organisations and create opportunities for doing things differently and better. User-testing has moved from the realm of designing industrial products to designing policies and programs that place citizens and communities at the centre of the whole process.

In museums and galleries, this means stepping back from the voice of authority and using more collaborative methods, such as prototyping approaches, and exhibitions co-developed with the citizens/users/visitors' backgrounds engaged from the start. Such approaches aim to ensure that various communities' experiences, ideas and feedback can be sought to inform each stage

of development. This means seeking to understand different views and needs, developing empathy and, most challenging of all, sharing power. Some call it democratising the museum.

These are the disruptive business models we see emerging and part enabled by digital technologies.

Question 5: What communication services, and underlying data, platforms and protocols, does Australia need to maximise the opportunities of the digital economy?

In 2016, MGA participated in GLAM Peak's research and submissions to the Commonwealth Government on the National Research Infrastructure Roadmap – Capability Issues Paper:

The GLAM Peak Digital Access to Collections Stage One and Stage Two projects noted earlier will support and guide the development of the supply-side of digitising the data that are held in Australia's wildly disparate and dispersed collections. What is also essential is investment in the user-side – the powerful next-generation research infrastructure that can easily find, interrogate, compare and use this digital data in a myriad of ways to create new knowledge. Building this capability should be a key part Australia's next national Roadmap for infrastructure investment.

In 2017, MGA advised on the Draft 2016 National Research Infrastructure Roadmap:

"We support the statement on the importance of the national government's leadership and investment role, and note that this is framed within Australia's broader agenda for national growth, alongside key elements such as the National Science and Research Priorities. We would add that other elements include significant cultural, arts and heritage policies, programs and investment frameworks, which should also be recognised as part of Australia's investment, innovation and growth agenda."

We are aware that the Australian Academy of the Humanities is currently undertaking further work on what the priorities and requirements are for the Humanities, Arts and Social Sciences platforms, and are supporting and contributing to this crucial next stage.

Question 7: What opportunities do we have in standards development and regulation to:

- ***enable digital entrepreneurship, innovation and trade?***
- ***mitigate the risks associated with digital disruption?***

The current copyright framework of Australia is a significant barrier to realising economic and cultural benefits - commercial, academic and community remix and reuse of digitised collection information is rendered more difficult by the legal barriers to providing clear and consistent open access. This has been widely covered in other consultations.

In 2015, GLAM Peak advised the Cultural Ministers Council that:

"Investment in standards and benchmarking should be considered in the context of the existing range of international standards and benchmarking tools which are already widely used in the sector. We are concerned that further work should not only cover digitisation but also take into account the capture of born-digital materials, preservation, transformation and creating new content. We support [further research] but suggest that any benchmarking tool be further refined with reference to established international models."

"While GLAM institutions make a significant investment in their individual online presence, we are also acutely aware that discovery occurs not only through our websites, but also through aggregator sites, search engines and social media sites. We actively promote accessibility but

face significant barriers to achieving this ambition, some requiring legislative assistance. Embedded third party copyright is a major issue for collecting institutions and it is important to address copyright reform as a further stage of this discussion.”

Question 16: What efforts are you or your organisation making to respond to digital transformation? Why?

The draft framework we have co-developed through GLAM Peak in Stage 1 sets out the nation’s ambition for digital access to collections - for open access to a rich diversity of Australian content by national and international audiences. Implementing the framework through Stage 2 is making more Australian collections discoverable globally. It is supporting capacity building in the sector, particularly for smaller institutions, and knowledge transfer between collecting institutions of all types, sizes and jurisdictions.

As an organisation that delivers membership services, including skills training and professional development at regional, state and national levels, MGA continues to provide workshops and other learning and networking opportunities to develop digital literacy. Our annual national conference always includes a significant emphasis on digital transformation projects and capability building.

Question 20: What opportunities do we have to equip Australians with the skills they need for the digital economy, today’s jobs, and jobs of the future?

Through DigiVol schemes and citizen science and humanities projects, museums and galleries can play an important role in building an engaged community that is digitally literate. For instance building keyboard skills in older Australians through volunteer schemes, or working with universities to build and populate digital platforms for cultural collections at undergraduate level.

Question 21: What opportunities do we have to bridge the ‘digital divide’ and make the most of the benefits that digital technologies present for social inclusion?

Regardless of specific digital skills in collections management, research and learning, the role of cultural organisations in education is predicated on keeping up with the technological accords regarded as ‘normal’ by emerging cohorts of students. Today’s schoolchildren regard access to images, video and reliable information as the default. During visits to museums and galleries, the ability to interact digitally is essential for effective engagement and learning. In turn, these organisations help enable students, whatever their experience or access to opportunities elsewhere, to catch up and participate in the digital economy.

Question 22: What opportunities do we have to ensure digital technology has a positive impact on the cultural practices and social relationships of Australians?

The sector is working hard but needs support for skills development and facilities.

Access to advice is variable, with irregular and insufficient support and sharing of expertise from the large state cultural institutions with the regional, remote and community museums and galleries. We note this type of support is not a mandated requirement and not purpose-funded –

many state museums and galleries strive to provide what little they can. MGA itself has limited resources to provide ongoing support.

- One-year funding for GLAM Peak from the former Catalyst Fund to deliver capability building in regional institutions was welcome but not sufficient.
- This situation needs to change and there are models that could be adapted.
- A program could be structured with long term goals and significant implementation funding. It should recognise the very wide range of museums and galleries and provide different types of digital development funding, advice and support which respond to the differing levels of capability and need.
- Collaboration across the regions using a hub and spoke model should be strongly supported.
- Other vertically integrated models of longer term and institutional support for collecting institutions would be essential, for example within NSW there are the obligations and support services mandated under legislation to be provided by the State Library of NSW to regional and local libraries.

A case study of a strategic state-funded and network delivered multi-year project is the Victorian Collections – outlined below.

Case Study

Victorian Collections

Background/rationale

The need for a free, accessible, online system to digitise cultural collections was identified by Museum Victoria and Museums Australia (Victoria) in 2009, initially as a risk management response to protect the Distributed State Collection from climate disasters.

Collections remain an ongoing risk of damage or loss from fire and flood. Mitigating practices include effective cataloguing and back-ups of the catalogue data. Many collections were identified as 'at risk' due to their reliance on hard copy catalogues – such as card indexes - or stand-alone electronic databases – such as Filemaker, or unsupported legacy versions of current software.

The project and its success factors

Victorian Collections was the pioneering approach taken by Museums Victoria and Museums Australia (Victoria) to address these issues, by offering a free, easy to use online cataloguing system and platform for the public to access and explore cultural heritage. Museum Victoria provides the technical capacity and resources for the site. Coding, development, technical support and development are managed by the Museum Victoria team.

Museums Australia (Victoria) develops and delivers comprehensive training, face-to-face workshops and manages enquiries.

These combined factors – world-class technology, hands-on training and advice, digital equipment loans, the goodwill of volunteers and staff digitising, cataloguing, and sharing their experiences with each other, and the trust between users, MV and MA (Vic) – are all key to the success of the project.

Funding background

2009 – 2011

Victorian Government - \$280,000 (Collaborative Internet Innovation Fund)

Shared between MA (Vic) and MV

+ in-kind sponsorship from Dell and Telstra

2012

Victorian Government - \$160,000 (Victorian Cultural Network)

2013

Victorian Government - \$110,000 (Victorian Cultural Network)

Victorian Government - \$36,000 (Office of Multicultural Affairs)

2014

Victorian Government - \$79,000 (Veterans Branch, DPC)

Victorian Government - \$35,000 (Victorian Cultural Network)

Local government - \$12,000 (Targeted multicultural activities)

2015

Victorian Government - \$80,000 (Veterans Branch, DPC)

Victorian Government - \$45,000 (Victorian Cultural Network)

2016

Victorian Government - \$50,000 (Veterans Branch, DPC)

Victorian Government - \$90,000 (Victorian Cultural Network)

Conclusion

Current research is revealing the deep value of arts, culture and heritage to society and the economy in increasing numbers of ways, including business innovation and health and wellbeing. The government's digital economy strategy needs to support more cross-governmental strategies and programs that enable all museums and galleries to thrive, provide the greatest possible digital access to and use/re-use of their content and programs, and thus contribute to Australia's future innovation and sustainability.

Further sources of information

Survey findings and recommendations from the Cultural Ministers' Digital Technologies Working Group -

<http://mcm.arts.gov.au/sites/default/files/mcm-digital-technologies-working-group--final-report.pdf>

Six case studies in developing digital access to collections in 2016: <http://www.digitalcollections.org.au/case-studies>

"Australia's top-flight innovators will draw on a mix of skills – creative, business and technical – to tap new sources of wealth", *Skills and capabilities for Australian Enterprise Innovation*, ACOLA Report 2016

"Long term arts engagement supports positive health outcomes", and "Arts in education ... contributes in important ways to the factors that underpin learning, such as cognitive abilities, confidence, motivation, problem-solving and communication skills", Crossick & Kaszynska, *Understanding the Value of Arts & Culture*, AHRC, UK 2016



Profile

Museums Galleries Australia (formerly Museums Australia) is the national association representing museums and galleries. We encompass a wide and diverse range of national, state, regional and community museums, galleries, historic sites, heritage centres, botanic and zoological gardens, research centres, Indigenous cultural centres, and Keeping Places across Australia. We were formed in 1994, combining various museum organisations dating back to the 1930s.

MGA is an advocacy, service and professional development organisation. We seek to enhance the value of Australia's collections and stories by sharing knowledge, developing skills, inspiring innovation and providing leadership and the authoritative voice in protecting and promoting our arts and cultural and natural heritage. We advocate for museums and galleries, identify and undertake strategic research, set ethical standards and run inspiring and essential training programs. Understanding the dynamic between membership and a broader community engaged in Australia's cultural life, we collaborate, foster and advocate across and for the cultural sector.

- MGA produces **programs and services** nationally to members and non-members
- MGA works with a **range of partners in the area of cultural heritage provision** – including the Federation of Australian Historical Societies, ICOMOS, ACNT, Blue Shield Australia
- MGA is a founding member of the **Museums Alliance** incorporating peak bodies Museums Galleries Australia, ICOM Australia, Council of Australasian Museum Directors (CAMD) and Council of Australian Art Museum Directors (CAAMD), and instigated the formation in 2015 of the Galleries, Libraries, Archives & Museums peak body, **GLAM Peak**
- As a service organisation, MGA is focused as much on museums' **service to Australian communities** as on the **capacities of museums** themselves to increase resources and skills, and provide greater service
- MGA **acts internationally** as a museums organisation in partnership with ICOM Australia, with proactive attention to the Asia-Pacific region

MGA Membership

Membership: **1,381 members**

- **726 individual members**
(including individuals employed in museums, retired museum professionals, students, volunteers)
- **655 organisational members**
(reaching and representing thousands of individuals through the large institutions)

A selected national snapshot of MGA organisational members

(This snapshot captures the variety of organisations, from tiny, regional and remote museums, to large/capital city institutions; from parks and zoos to galleries and contemporary arts centres, that make up MGA's membership)

Australian Capital Territory

- National Gallery of Australia
- National Museum of Australia
- National Portrait Gallery of Australia
- Australian War Memorial
- Museum of Australian Democracy at Old Parliament House
- Canberra Museum and Art Gallery
- Australian Natural Wildlife Collection (CSIRO)
- Australian Council of National Trusts (ACNT)

New South Wales

- Art Gallery of New South Wales
- Australian Museum
- Museum of Applied Arts and Sciences
- Museum of Contemporary Art Australia
- Lake Macquarie Regional Gallery (Lake Macquarie)
- Zoology Museum, University of New England (Armidale)
- Goulburn Regional Art Gallery (Goulburn)
- Goulburn Mulwaree Parks and Recreation Services
- McCrossin's Mill Museum (Uralla)
- Australian National Maritime Museum
- Sydney Living Museums

Northern Territory

- Museum and Art Gallery of the Northern Territory (Darwin)
- Katherine Outback Heritage Museum (Katherine)
- National Pioneer Women's Hall of Fame (Alice Springs)

Queensland

- Queensland Museum
- Cairns Regional Gallery (Cairns)
- Tableland Regional Gallery (Atherton)
- Brisbane Botanic Gardens (Mt Coot-Tha)
- University of Queensland Art Museum (UQ)
- University of Technology Art Museum (QUT)
- University of Queensland Anthropology Museum (School of Social Sciences, UQ)
- Yugambeh Museum, Language and Heritage Resource Centre (Yugambeh)

South Australia

- South Australian Museum
- Flinders University Art Museum
- Mary McKillop Penola Centre (Penola)
- Architecture Museum, University of South Australia
- Botanic Gardens of Adelaide
- History SA (Migration Museum, National Motor Museum, SA Maritime Museum)

Victoria

- Museums Victoria (Melbourne)
- State Library of Victoria
- Latrobe Regional Gallery (Morwell)
- Sovereign Hill (Ballarat)
- Swan Hill Regional Art Gallery (Swan Hill)
- Golden Dragon Museum (Bendigo)
- Ararat Regional Gallery (Ararat)
- National Wool Museum
- Flagstaff Hill Maritime Museum
- RMIT Gallery
- Parks Victoria
- Zoos Victoria (Melbourne)

Western Australia

- Western Australian Museum
- Broome Historical Society (Broome)
- Geraldton Art Gallery (Geraldton)
- Ongerup and Needilup District Museum, Ongerup (north of Albany)
- Carnamah Historical Society (Carnamah)
- Kodja Place and Visitors Centre (Kojanup)

Tasmania

- Tasmanian Museum and Art Gallery (Hobart)
- Queen Victoria Museum and Art Gallery (Launceston)
- Devonport Regional Gallery (Devonport)
- Beaconsfield Mine and Heritage Centre (Beaconsfield)
- MONA – Museum of Old and New Art

**JOIN SHARE ENGAGE LEARN CONNECT INSPIRE PROTECT IMAGINE SUPPORT
CHAMPION PROMOTE THINK GROW CREATE CONSERVE VOICE ARTS ETHICS
CREATIVITY HISTORY NATIONAL SCIENCE COMMUNITY DESIGN AUDIENCE
PROFESSIONAL DIGITAL IDEAS STORIES INNOVATE CULTURE**

THE VALUE AND IMPACT OF DIGITAL ACCESS TO COLLECTIONS



GLAM · PEAK

Access to our shared heritage and knowledge makes a difference: digital collections support innovation, creativity, education, engagement, research at all scales, and combined with curiosity and with computational power, lead to significant social, cultural and economic outcomes.

Not only are digital collections preserving our national and personal heritage of unique and irreplaceable records, stories, images and sounds, but they are providing a discovery and access pathway to knowledge that facilitates previously unimagined scientific and social exploration and innovation.

Digital collections enable our rich national content to be discovered by international audiences and remote Australian communities, allow data to be mined, combined and manipulated, and deliver outcomes that connect, engage, inspire, delight, educate, and indeed, that change lives.

Cool things happen



Trove has an average of 55,000 unique users per day and more than 20 million unique users per year. Among the many stories about the positive impact digital access has had on the lives of individuals, few are more amazing than the breakthrough story of the development of a prosthetic hand, based on an 1845 design, which would not have happened without the digital access provided by the Trove portal.

The rediscovery of the prosthetic hand design has inspired the production of the world's first 3D-printed body-powered partial hand prosthesis. US mechanical designer Ivan Owen came across the 19th-century design using Trove when he uncovered records of a prosthetic hand developed by Adelaide-based dental surgeon Dr Robert Norman.

Mr Owen is now working with a team of students at the University of Washington to further develop 3D-printed prosthetics. As a result of international collaboration and the digital collection, more than 1,600 people have received a 3D-printed hand at low cost.

abc.net.au ➞

Creating true colour 3D images allows the CSIRO to better transmit information about physical specimens to a variety of stakeholders.



© CSIRO, 2016

In the critically important world of biosecurity, quarantine officers could have high resolution images of pests on hand held devices which would be fully rotatable and allow zooming to diagnostic features. This would increase efficiency through rapid and accurate identification and reduce certain economic consequences of a failure to identify an invasive specimen.

ala.org.au ➞



Anyone can discover Australia's amazing wildlife in this suite of eight apps, one for each state and territory in Australia.

Together the Field Guide to Fauna apps feature over 2100 animals, including mammals, birds, fishes, reptiles, frogs and invertebrates from terrestrial, freshwater and marine environments. They contain detailed descriptions of each species, as well as distribution maps, endangered status, audio calls and stunning imagery. The field guides, released by Museums Victoria, represent an ongoing collaboration between Australia's major natural history museums and can be used at home, at school, in the bush or at favourite holiday destinations, making Australian fauna accessible to everyone.

museumvictoria.com.au ➞



Preserving the potential: safeguarding our nation's knowledge and cultural heritage

Creating digital objects is the primary way in which cultural heritage and other collections are being preserved for future generations, ensuring cultural, social and scientific knowledge is available not only right now but that it remains accessible to allow the realisation of future potential.

Storylines, an initiative of the State Library of Western Australia, is a project that employs, trains and develops local people, building capacity and enabling cultural development in remote communities. At Mowanjum in the far north, it shares knowledge through digital collections within the community, supporting intergenerational knowledge transmission and helping maintain and develop culture.

The material held within Storylines has demonstrated its capacity to revive cultural practices and traditions within the community, deepening the connection to culture and country, and contributing to the emotional and social wellbeing of the community. An historic collection of rock art site photographs by German explorers in the 1920s and 30s has been imported into Storylines assisting current site identification and preservation and traditional dances and songs have been revived through reference to historic photos, recordings and videos.

slwa.wa.gov.au ➞

Expanding our creative economy



'Without Trove my research results would be like a handful of acorns: Trove is the whole oak tree.' Kaz Cooke, October 2016

Kaz Cooke, best-selling Australian author now working on a new novel about the Australians who performed in vaudeville and music halls during the years 1888 to 1910, describes herself as an 'untrained amateur' when it comes to research. Trove, and its millions of pages of digital content, has enabled Ms Cooke to enrich her writing with details from sources published at the time her new novel is set.

She collected separate snippets of information from digitised newspapers over several years, and says that a whole picture has come together like a patchwork quilt. As new information has been digitised, she has been able to add more richness to her tapestry.

As Ms Cooke says, 'All of this would have been lost without Trove. It's satisfyingly miraculous, how much you can find in there. It's still hard and there are maddening missing pieces, but without Trove I'd only have my imagination to go on.'

trove.nla.gov.au ➞

Meanwhile, on a broader scale, the Design & Art of Australia Online



DESIGN & ART
AUSTRALIA
ONLINE

(DAAO) archive provides global exposure for Australian scholarship on art and design, along with tangible economic, social and cultural benefits toward the sustainability of cultural industries.

The next generation of the DAAO will enable cultural policy to be informed by an expanded and growing collection of scholarly research. Moreover the DAAO has potential as an enabling technology for Australia's Indigenous visual arts and craft sector in meeting the challenges of unethical conduct, sustainability and further developing international markets.

daao.org.au ➞

Access nationally and internationally: Uncovering the unknown and the unseen

National Gallery of Australia (NGA) visitors can now get up close and personal with selected artworks usually kept well out of reach from the public. Six objects on display as part of the Myth + Magic: Art of the Sepik River exhibition were scanned and recreated as 3D digital sculptures in a unique collaboration between the NGA and the CSIRO. The exhibition showcases the unique cultures of the Sepik River region of Papua New Guinea. Visitors can view the work on touch screens from every angle and zoom in on details, such as intricate carving before seeing the items in person.

The Gallery is working to make the objects as accessible as possible globally, of significant benefit to overseas researchers and the communities of origin. This is a way to virtually share material which they may never have seen.

abc.net.au ➞



The National Film and Sound Archive has produced a series of digital centenary “newsreels” which have reached more than one million viewers on national TV and have screened before top rating movies at over 100 cinemas across all States reaching both metropolitan and regional audiences. There were 9000 online sessions the first month the website launched and since then, usage has continued to grow.

anzacsightsound.org ➞

Engaging local communities

Lilydale & District Historical society has more than 4000 images in its collection. They have sold licensed copies to media companies in Australia and overseas, and “locally, our images and research have helped secure the future of two of Lilydale’s oldest homes, both now being lovingly restored by their owners who also proudly hang our images of their homes in pride of place. Both the owners and our community benefit from the retention of the homes and their place in our local history.”

Digitisation of the image collection has created an important revenue stream to cover the Society’s basic costs, and also to enable more of the community to engage with its history. The Society’s original collection has now become part of the museum run by the Shire of Lilydale and is a vital community asset.

lilydalehistorical.com.au ➞

Enabling research on a hitherto unimagined scale



As part of the Global Plants Initiative (funded by the Andrew W. Mellon Foundation), the Australian National Herbarium is digitising its 9,000 type specimens, some of which were collected as far back as the late 18th century. Making these digital images available is

allowing researchers worldwide, and especially those in developing countries, to readily access the wealth of data these images hold. This also minimises the risk of damage that handling these fragile and irreplaceable specimens can cause. Making these images available is contributing to Australia’s cultural heritage as well as to our biodiversity knowledge.

gpi.myspecies.info ➞

anbg.gov.au ➞

Following curiosity and connecting us to family and the past



Every one of us is shaped by our backgrounds, culture, nationality and a sense of belonging,

and knowing our family history can make a significant contribution to our sense of self.

Millions of digital records are now available online to family historians from national and state archives and collections, but many more fascinating pieces of information remain locked away in analogue formats in small historical societies and other local collections. Often researchers find the unexpected when they move beyond the dates and explore court and land records, newspaper clippings, journals, letters and other more personal records, now possible on a large scale as more and more material is added to digital collections.

Discovering this sense of self can be particularly important to Indigenous Australians who may have been displaced from family, community and country through a variety of government policy and social actions. Reconnecting to culture and country has significant wellbeing effects for Indigenous Australians and much of this work takes place through accessing digital collections.



The Dawn and new Dawn archive collection, for example, allows people to search from anywhere by

the name of a person and specific dates. There are also details of births, deaths, marriages and baptisms, which is helpful for family history research. Those interested can also view photos from the magazines or read from the complete set magazines. The Dawn and New Dawn also contain articles about the conditions and activities on reserves, stations, homes and schools throughout New South Wales, as well as highlights from the work of the Aboriginal Welfare Board.

aiatsis.gov.au ➞

Digitised sources + computational methods = digital innovation



The State Library of South Australia has 23 data sets available through data.sa.gov.au. These data sets have been made available for GovHack, the SA nodes of GovHack – Unleashed Open Data competition and N3xGen Unleashed; as well as the national WW1 Hack. The exposure and use of these data sets, particularly in the youth competition have contributed to the development of young entrepreneurs, building a cohort of skills and partnership opportunities.

uladl.com ➞

Scale matters

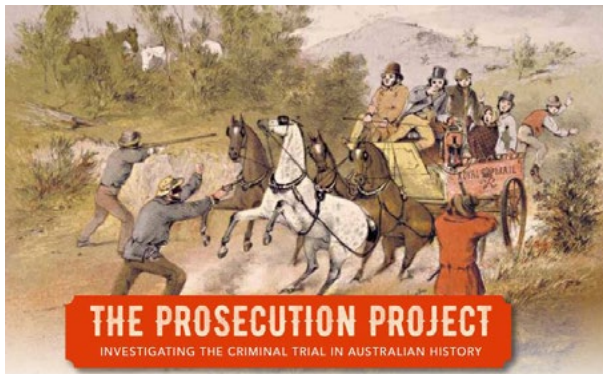
“I was able to do in minutes with Python code what I’d spent the last ten years trying to do by hand!” -Dr. Katrina Navickas, BL Labs Winner 2015

Dr Navickas experiments with mapping with GIS, and applying the theories and methods of cultural geography and space syntax to historical evidence. She was one of the two 2015 winners of the British Library Labs competition, for her digital history project, ‘Political Meetings Mapper’, which text-mined and mapped reports in 1840s newspapers.

This kind of project will lead to yet further new research not just in history and heritage but also in the sociology of social movements and urban planning.

britishlibrary.typepad.co.uk ➞

Learning more about society



We know surprisingly little about the transitions from the world of the circuit court in a colonial town to our contemporary criminal justice system. The Prosecution Project seeks to provide us with the means to learn more about this transition, and to do so in a way that broadens understanding of the history of crime and punishment, and adds to the stock of knowledge of Australian social histories in a way previously unimaginable.

The Prosecution Project has accessed the enormous potential of volunteer communities engaged in genealogical and other historical research, 'citizen historians' we might call them. The experience of working on the Prosecution Project and on other projects such as the Digital Panopticon and Founders and Survivors, shows the huge unrealised potential of digital technologies for the publication and circulation of images, the development and utilisation of large datasets, the design of new ways of sharing research outcomes, including data visualisation.

humanities.org.au ➞

Meanwhile, the Citizen Heritage Project is exploring how digital technologies enable citizens of local areas to document and share memories and records of their collective past. The main focus is on the development and study of PastPort (currently undergoing early testing), a mobile webapp for residents and visitors of Port Melbourne in inner Melbourne, an area of rich and disparate urban history.

This project is supported by the Australian Research Council (Discovery Project: DP140101188) and aims to advance heritage

theory and practice, with new understanding of the production and application of innovative digital technologies.

Such an important project that so easily maps and reveals the history of inner Melbourne should also help develop tourism opportunities with associated flow on economic benefits.

citizenheritage.com ➞

Helping scientists



Australian Moths Online is now available on the Atlas of Living Australia, providing reliably identified images of selected Australian moths. Australian Moths Online provides images of Australian moths that have been reliably identified by CSIRO.

Moths regarded as pests in Australia can be found by running a search on 'pest'. A list of images, names and data for each pest species on the site will appear. Clicking on the image will provide an expanded image to accompany the data.

Such a digital resource has unquantifiable and often unknown benefits to scientists, researchers and citizen scientists. The one certain thing is that without digital access an enormous amount of activity would simply not be able to take place unless physical collections could be accessed.

csiro.au ➞

Helping students



Dirk Hartog 1616–2016: 400 years of Australian connections is a digital resource from the National Library of Australia aligned to the Australian Curriculum: Humanities and Social Sciences for Year 4 students. It adopts an inquiry learning approach that develops students' skills as historians. The resource engages students with a rich selection of historical sources and challenges them to draw their own conclusions about Dutch–Australian connections over the past 410 years, focusing on Dutch maritime explorations of Australia. Welcome to the digital classroom and improved learning outcomes for Australia's students!

nla.gov.au ➞

An open access online resource available to all teachers and students, the Living Archive of Aboriginal Languages contains thousands of authentic texts which can support the inclusion of Indigenous knowledges across the curriculum.

The archive allows teachers and students around Australia to easily access a vast range of literature, art and language, leading them to think about different ways to consider Indigenous knowledge in their own contexts

This includes exploring opportunities for connection with local authorities, research into culture and language of the area, and even to investigate opportunities to support language revitalisation.

Schools and teachers with limited or no connection to Indigenous peoples can easily access materials that can be readily used in the classroom, and those who have connections can also use these resources to support or develop relationships and incorporate knowledge directly from Indigenous authorities.

cdu.edu.au ➞

Digital participation



Undertaking family history research is one of the first ways in which many Australians start accessing digital collections and through this develop digital literacy skills, resulting in significantly greater social participation and engagement. Raising levels of digital inclusion has a range of measurable benefits and social impact. UK research shows that many without digital literacy skills suffer social exclusion and poverty.

The development of these skills, and consequent digital participation, can help to improve people's employment prospects, levels of education and financial literacy. Using just one overseas example, organisations such as the UK's Good Things Foundation can measure positive impacts from digital participation on health and well-being, small business development, learning and employment, money management, community cohesion and the reduction of isolation and loneliness.

goodthingsfoundation.org ➞

“ Culture can be a catalyst for social and economic change. But that's only possible if it's readily usable and easily accessible for people to build with, build on, and share. ”

strategy2020.europeana.eu ↻



www.glampeak.org.au