Submission
2016 National Research Infrastructure Roadmap
Capability Issues Paper

Name	Lyndall Osborne
Title/role	Executive Director Collections
Organisation	Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS)

This submission is being made on behalf of AIATSIS.

The Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) is a world-renowned collections, research and publishing organisation. Through these activities AIATSIS promotes knowledge and understanding of Aboriginal and Torres Strait Islander cultures, traditions, languages and stories, past and present.

AIATSIS cares for a national collection, including films, photographs, video and audio recordings as well as printed and other resource materials by and about Aboriginal and Torres Strait Islander peoples; the largest and most significant such collection in the world. AIATSIS also undertakes and encourages scholarly, ethical, community-based research in a variety of sectors, including health, native title, languages and education. Aboriginal Studies Press, the AIATSIS publishing house, regularly publishes outstanding writing that promotes Australian Indigenous cultures. Activities undertaken at AIATSIS, which strategically fulfil its legislative functions and responsibilities, affirm and raise awareness of the richness and diversity of Aboriginal and Torres Strait Islander cultures and histories.

Questions

Question 1:   Are there other capability areas that should be considered?

Nil response

Question 2:   Are these governance characteristics appropriate and are there other factors that should be considered for optimal governance for national research infrastructure.

Nil reponse.

Question 3:   Should national research infrastructure investment assist with access to international facilities?

Yes. In regards to humanities infrastructure, assisting in understanding culture and communities, a significantly strengthened Australian UNESCO Commission and office would aid greatly in enabling and supporting international connections and collaborations between major cultural organisations, including collecting organisations and their collections. Such collaborations would further enhance connected humanities collections as well as provide support for skills development and research.

Question 4: **What are the conditions or scenarios where access to international facilities should be prioritised over developing national facilities?**

Nil response

Question 5: **Should research workforce skills be considered a research infrastructure issue?**

Nil response

Question 6: **How can national research infrastructure assist in training and skills development?**

Nil response

Question 7: **What responsibility should research institutions have in supporting the development of infrastructure ready researchers and technical specialists?**

Nil response

Question 8: **What principles should be applied for access to national research infrastructure, and are there situations when these should not apply?**

In relation to Indigenous knowledge held within the research infrastructure network, research data management protocols developed through the AIATSIS Guidelines for Ethical Research in Australian Indigenous Studies (GERAIS) and world's best practice access protocols encapsulated in the AIATSIS Access and Use Policy should apply and be further embedded into systems and practice as standards. These both operate within a framework of community consent, control and where possible, participation.

Question 9: **What should the criteria and funding arrangements for defunding or decommissioning look like?**

Nil response

Question 10: **What financing models should the Government consider to support investment in national research infrastructure?**

There should be no assumption that existing facilities can move to self or privately funded models. Much of the national research infrastructure will always require public funding to exist and innovate.

Question 11: **When should capabilities be expected to address standard and accreditation requirements?**

Nil response

Question 12: **Are there international or global models that represent best practice for national research infrastructure that could be considered?**

Trove is the Australian metadata aggregator, a world's first and a world's best practice model. Trove pulls together metadata and content from multiple sources into one platform to make finding what researchers are looking for an efficient and successful

experience. Distributed content is available within seconds. The benefits to researchers, historians, social scientists and the international and Australian community as a whole, is immense, resulting in over 70,000 unique visitors a day. As at September 7th it provides access to over 506,979,943 Australian and online resources: books, images, historic newspapers, maps, music, archives, museum objects and more.

Further investment would strengthen the ability of Trove to include even more types of collections (galleries, universities etc.) and to improve access services to digital collections. This could include greater access to Indigenous collections and knowledge, and support a multilingual platform, including Indigenous languages.

Europeana, the multi-lingual online collection of digitised items from European museums, libraries, archives and multi-media collections holds 53,482,613 artworks, artefacts, books, videos and sounds from across Europe.

The Atlas of Living Australia is proposing an AIATSIS, Trove and the Atlas of Living Australia infrastructure collaboration and aggregation 'culture to country' model which would expand and integrate existing infrastructure and support data sharing in relation to Indigenous knowledge. This initial proof of concept model would demonstrate the value of providing infrastructure which would allow Indigenous groups and communities to manage and deliver their cultural and ecological knowledge as they choose, as well as to integrate community holdings with larger collections.

Question 13: In considering whole of life investment including decommissioning or defunding for national research infrastructure are there examples domestic or international that should be examined?

Nil response

Question 14: Are there alternative financing options, including international models that the Government could consider to support investment in national research infrastructure?

Nil response

Health and Medical Sciences

Question 15: Are the identified emerging directions and research infrastructure capabilities for Health and Medical Sciences right? Are there any missing or additional needed?

Nil response

Question 16: Are there any international research infrastructure collaborations or emerging projects that Australia should engage in over the next ten years and beyond?

Nil response

Question 17: Is there anything else that needs to be included or considered in the 2016 Roadmap for the Health and Medical Sciences capability area?

Nil response

Environment and Natural Resource Management

Question 18: Are the identified emerging directions and research infrastructure capabilities for Environment and Natural Resource Management right? Are there any missing or additional needed?

Nil response

Question 19: Are there any international research infrastructure collaborations or emerging projects that Australia should engage in over the next ten years and beyond?

Nil response

Question 20: Is there anything else that needs to be included or considered in the 2016 Roadmap for the Environment and Natural Resource Management capability area?

Consideration should be given to infrastructure that can support and promote the participation of Indigenous peoples in managing and conserving biodiversity and sharing, as they choose, ecological knowledge. This includes building and sharing data sets (such as those continually developed by Indigenous rangers) on Indigenous biodiversity conservation, environmental management, the effects of climate change on country, and socio-cultural, land rights and economic goals. Promoting and developing platforms to archive, preserve and make discoverable (with appropriate community access protocols such as those developed by AIATSIS) large ecological data sets would enhance two-way research participation and intergenerational knowledge transmission.

Advanced Physics, Chemistry, Mathematics and Materials

Question 21: Are the identified emerging directions and research infrastructure capabilities for Advanced Physics, Chemistry, Mathematics and Materials right? Are there any missing or additional needed?

Nil response

Question 22: Are there any international research infrastructure collaborations or emerging projects that Australia should engage in over the next ten years and beyond?

Nil response

Question 23: Is there anything else that needs to be included or considered in the 2016 Roadmap for the Advanced Physics, Chemistry, Mathematics and Materials capability area?

Nil response

Understanding Cultures and Communities

Question 24: **Are the identified emerging directions and research infrastructure capabilities for Understanding Cultures and Communities right? Are there any missing or additional needed?**

AIATSIS agrees with the broad directions and capabilities outlined here and agrees that the sector has many and diverse research infrastructure needs covering discovery of materials in all cultural collections large and small, production of digital content, an appropriate rights framework to protect creators' rights and Indigenous intellectual property rights, while facilitating maximum reuse and innovation, and the development of high end tools for both linking and analysis of data sets.

The research community needs a further enhanced national platform (building on the capabilities of existing infrastructure such as Trove and the Atlas of Living Australia) which can fully support prioritised digital content and enable full discoverability of Australian collections both published and unpublished, as well as accessibility provided within community and cultural sensitivities and associated rights. Such a platform should also enable deep linking of Australian material with international collections to ensure all connected data is available to researchers and communities.

Aggregators such as WorldCat (https://www.worldcat.org/) provide knowledge of locations of material, and especially published material, around the world. However, a genuine HASS portal needs to have the capability for records to incorporate links to the digital objects described, linking of references within metadata records of one institution to the metadata and digital objects held in another. In this way a researcher can genuinely research from the desktop and view objects from anywhere. This could be particularly important to Indigenous communities as many overseas institutions hold important collections gathered by international researchers and organisations which are now effectively unavailable to Indigenous Australians.

Many cultural collections are still focussed on digitising analogue collections; however, the capture, management, preservation, discoverability of, and access to, significant born digital data sets is an emerging area of substantial need. AIATSIS, through its legislated functions, has a clearly mandated leadership role and is ideally placed, not only in relation to the development of a national collection of Aboriginal and Torres Strait Islander culture and heritage, but also to lead in the development of ethics and protocols, and partnerships among the academic, research, non-government, business and government sectors and Aboriginal and Torres Strait Islander peoples.

The ATSIDA archive was "designed to become a digital counterpart to the extensive collections of physical research materials held in many institutions and, notably, the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) whose collections are the largest resource on Australian Indigenous peoples." This node of the Australian Data Archive (ADA) manages the collection and storage of Aboriginal and Torres Strait Islander research data as do many other cultural institutions, including

AIATSIS. ATSIDA is a thematic archive within the ADA. ATSIDA's scope of activity is restricted by the limited resources available to it and its systems privilege researchers and depositors, making it unclear if ATSIDA's policies increase Aboriginal and Torres Strait Islanders' access to data.

The records and other collections of every Aboriginal and Torres Strait Islander organisation and community are unique and precious. Each and every one is potentially of enormous historical, cultural and economic value to current and future members of their local community. These collections capture details about the experiences and values of past leaders and elders, shedding light on their actions and provide an evidence base for future decision-making and economic development. More broadly, the collective cultural, social, historical and commercial value of these records to the nation is immeasurable, they have the potential to assist and empower communities to participate more fully and effectively in the economy, through the building of individual, organisational and community resilience and capabilities.

Indigenous community archives would benefit from access to a national framework of secure data storage, capacity-building in digitisation infrastructure, employment and training for Aboriginal and Torres Strait Islander communities and organisations, to support the preservation of valuable and vulnerable information assets throughout Australia.

There is a need for a national initiative to support and augment the existing efforts of state and regional bodies and to encourage and empower Indigenous communities and organisations to evaluate, manage, preserve and archive information of local and national significance. It will provide a necessary component; that of consistent nationwide access to secure and long-term data storage. In addition to storage, such infrastructure should facilitate the provision of information and advice, training and skills development for Aboriginal and Torres Strait Islander community organisations around Australia, regardless of their size, location or purpose.

At the core of such an initiative is the direct control and management of community collections and objects by the community themselves, together with the ability to remotely curate and inform the metadata of objects located in other collections or participating institutions. This will encourage the adoption of uniform technical standards, file formats, develop greater interoperability of metadata, and lead to improved data protection and longevity. AIATSIS believes such an initiative would compliment the efforts of organisations such as the Indigenous Remote Communications Association (IRCA), native title bodies and existing national, state and regional collecting agency initiatives.

Question 25: Are there any international research infrastructure collaborations or emerging projects that Australia should engage in over the next ten years and beyond?

Australia should be cognisant of the directions and capabilities of projects such as

Europeana http://www.europeana.eu/portal/en

Digital Public Library of America https://dp.la/

Hydra in a Box   http://hydrainabox.projecthydra.org/

Scientific Collections International http://scicoll.org/

Question 26: Is there anything else that needs to be included or considered in the 2016 Roadmap for the Understanding Cultures and Communities capability area?

The final research infrastructure snapshot table should consider Trove as critical and valuable existing infrastructure.

AIATSIS strongly supports the future trend, for Indigenous knowledges, of community control and determination of the management of, and access to, cultural data.

Storage for both analogue and digital collections remains an issue for many major cultural collections.

National Security

Question 27: Are the identified emerging directions and research infrastructure capabilities for National Security right? Are there any missing or additional needed?

Nil response

Question 28: Are there any international research infrastructure collaborations or emerging projects that Australia should engage in over the next ten years and beyond?

Nil response

Question 29: Is there anything else that needs to be included or considered in the 2016 Roadmap for the National Security capability area?

Nil response

Underpinning Research Infrastructure

Question 30: Are the identified emerging directions and research infrastructure capabilities for Underpinning Research Infrastructure right? Are there any missing or additional needed?

AIATSIS agrees that high capacity networks, trusted communication, geospatial systems, and digitisation are critical to the delivery of robust interlinked platforms and delivery systems, and collaborative research infrastructure.

Further national coordination and funding would significantly enhance the digitisation effort of cultural institutions. Also of benefit would be the development of robust, simplified systems and equipment for digitisation of small collections and community archives, often managed by volunteers or very small numbers of staff and reliant upon community donations or small grants to fund operations. Indigenous remote community archives need even greater assistance (which AIATSIS has capability but not often capacity to do) and their efforts to work with larger institutions such as AIATSIS are hampered or completely blocked by insufficient network capacity or

Internet connectivity issues, as well as lack of equipment and engineering and digital skills levels within community.

Collaborative efforts by peak bodies to develop digital access to Australian collections, as well as the development of a National Digitisation Framework for magnetic media will require resource support to effect identified solutions. Barriers to collaborative efforts include the availability of obsolete playback equipment (including parts) along with the skills to maintain such equipment, and the agreement upon file formats and standards both technical and for metadata.

It is unlikely that most institutions would wish to ship collections materials to a national facility, rather local solutions at low cost will mostly be required. For Indigenous communities, digitisation on country (or as close as possible) is preferred, particularly for culturally restricted material.

For Indigenous collections a coordinated approach particularly to access and permissions protocols and processes, rather than institutions all developing their own, would be of benefit.

Question 31: **Are there any international research infrastructure collaborations or emerging projects that Australia should engage in over the next ten years and beyond?**

Nil response

Question 32: **Is there anything else that needs to be included or considered in the 2016 Roadmap for the Underpinning Research Infrastructure capability area?**

Nil response

Data for Research and Discoverability

Question 33 **Are the identified emerging directions and research infrastructure capabilities for Data for Research and Discoverability right? Are there any missing or additional needed?**

Nil response

Question 34: **Are there any international research infrastructure collaborations or emerging projects that Australia should engage in over the next ten years and beyond?**

Nil response

Question 35: **Is there anything else that needs to be included or considered in the 2016 Roadmap for the Data for Research and Discoverability capability area?**

Nil response.

Other comments

If you believe that there are issues not addressed in this Issues Paper or the associated questions, please provide your comments under this heading noting the overall 20 page limit of submissions.