

**CONZUL response to the MBIE Te ara paerangi future pathways green paper 2021****Council of New Zealand University Librarians (CONZUL) submission**

Date: 10 March 2022

**Introduction**

The Council of New Zealand University Librarians (CONZUL) is pleased to provide feedback to the Te Ara Paerangi Future Pathways Green Paper. Academic libraries have a long history of working in partnership with researchers, research office personnel and many others to ensure that the nation's research output is well supported. The role of libraries as institutions that collect, generate and share knowledge within and beyond academia is more important than ever. This role varies between institutions but includes: managing repositories and research information systems for research output, reporting and compliance; research data management (RDM) services; metadata and linked data services; support for e-research initiatives; digitisation; provision of technical infrastructure for publishing; copyright advice; bibliometric support and guidance for measuring scholarly impact, reach and engagement; as well as developing advanced services for research analytics.

The pandemic has reinforced the key role that open research has to help address global challenges like Covid-19. The pandemic has provided impetus for discussions in relation to the benefits of Open Access across the globe, including how it unlocks collaboration and growth and how industry and commerce can better utilise research knowledge. While emergencies are often a catalyst, they cannot be the sole rationale and time when research is made openly available to everyone. We are committed to realising a research system in Aotearoa that prioritises research that has real world impact on our communities, particularly Māori and Pasifika; takes a national approach where appropriate and provides open and equitable access to publicly funded research for all. Te Tiriti o Waitangi should not be treated as a separate priority; it needs to be integrated and embedded across the whole research system.

Our feedback is structured around two themes; research infrastructure and research workforce. The recommendations in both of these areas are not cost neutral and additional funding into the research system will be needed for these developments to enhance research outcomes.

## Research Infrastructure

We recommend that there is increased investment in collections as infrastructure, including the stewardship of collections, encompassing physical and digital objects, and targeted funding to describe, make discoverable and, where appropriate, digitise collections to enable new research opportunities and collaborations. Such collections include research publications, research data associated with publications, archival collections and non-traditional research outputs such as exhibitions and performances. Institutional repositories are important to support open scholarship and open science and have proven to be very successful in managing some of this output and ensuring that the FAIR (Findable, Accessible, Interoperable, and Reusable) principles are followed.

The recent UNESCO Open Science recommendations<sup>1</sup> set out a framework for how open science can increase scientific collaborations and sharing of information for the benefits of science and society. The recommendations include Open Access (OA) publications and data. Of New Zealand research published in 2019, 56% is locked behind paywalls severely limiting its reach and impact. However, it is possible to increase green open access to approximately 70% without additional costs by depositing all eligible accepted manuscripts in existing green repositories. We recommend developing and implementing OA mandates for government funded research outputs to enable an even greater proportion of Aotearoa New Zealand research to be made publicly available. We also recommend encouragement is given to Universities and Crown Research Institutes to adopt a Rights Retention Strategy<sup>2</sup>, similar to cOAlition S to enable all research outputs to be made OA. While all universities in New Zealand have institutional repositories, managed by their libraries, further consideration should be given to ensure publications from researchers working in other NZ research organisations have access to a repository.

There are several approaches which could be considered for providing repositories for research. The international landscape includes institutional repositories, subject based repositories (eg arXiv/BioArXiv/EarthArXiv) and general repositories such as Zenodo, the CERN-funded platform for research outputs. There are also global examples of in-house repositories from institutes such as NIH, the Canadian National Research Council, and the National Natural Science Foundation of China.

Developing national infrastructure to support and build on local repositories would be useful. A national repository needs to complement local repositories and offer ease of use, interoperability with our current systems, be financially viable, and come with relevant incentives/mandates to ensure use. This is particularly pertinent with providing services in managing and curating high volumes of research data output within and across disciplines. International examples include the Research Data Australia<sup>3</sup> and the UK Data Service<sup>4</sup>. The UK Data Service also provides

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<sup>1</sup> <https://unesdoc.unesco.org/ark:/48223/pf0000379949.locale=en>

<sup>2</sup> <https://www.coalition-s.org/rights-retention-strategy/>

<sup>3</sup> <https://www.andis.org.au/online-services/research-data-australia>

<sup>4</sup> <https://ukdataservice.ac.uk>

expertise in data skills training and data security, promoting FAIR principles and using high-quality data. Aotearoa New Zealand is not advanced in the capability to exploit research data and therefore unable to maximise the value of research data as an asset/taonga, and ensure reuse of data or reproducibility to increase the trust in science.

It is vital that the integration of mātauranga Māori leads the approach to research data management. Much work has already been done in relation to Indigenous and Māori data sovereignty and has highlighted the need for data schemas, methods and tools that can be applied to Indigenous data. Consideration needs to be given as to how any data schemas e.g. Traditional Knowledge Labels are utilised to ensure the use of CARE (collective benefit, authority to control, responsibility, ethics) principles as well as the FAIR principles. The integration of mātauranga Māori will allow community control and self-determination in relation to data stewardship. Māori and Pasifika research is often published in small, local institutional journals. It is important to ensure the sustainability of such publications. Thus, as CONZUL we value bibliodiversity that is, "the diversity of academic content, both at the national and international level which is essential for preserving research in a wide range of global and local topics, studied from different epistemic and methodological approaches, inspired by various schools of thought and expressed in a variety of languages".<sup>5</sup> Such an approach would encompass the desire by Māori researchers to see the development of Māori data infrastructure and security systems.<sup>6</sup>

In Aotearoa New Zealand an example of a successful national approach is our ORCID consortia. The national approach/endorsement has been instrumental in empowering institutions to mandate/strongly encourage researchers to gain an ORCID for increased reach and engagement of their research output. The ORCID consortia is cost-effective and does not require heavy administrative overhead. Though a far more complex issue, a similar approach to Research Data Management is suggested, ie a government led approach to RDM would significantly influence behaviours and good practice at the local level, particularly if the infrastructure was adequately funded to reflect local complexities as well as managing at scale the sheer volume and variety of research data collected. This should involve as many relevant institutions and organisations across Aotearoa New Zealand as possible.

It would be useful to consider examples of national and international initiatives that have not been as successful and to learn lessons from these, e.g. the excessive costs of Turakiri/REANNZ, for example, led to institutions cancelling agreements and implementing local solutions. As a national approach may have a finite life span (due to changes in government, funder policy, advancements in technologies, user behaviour etc), short and long-term viability for maximum result with minimum overheads should be considered.

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<sup>5</sup> <https://blogs.lse.ac.uk/impactofsocialsciences/2019/12/05/bibliodiversity-what-it-is-and-why-it-is-essential-to-creating-situated-knowledge/>

<sup>6</sup> <https://www.temanararaunga.maori.nz/>

## Research workforce

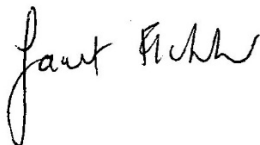
We recommend that MBIE considers adopting and funding a national approach to assist with skilled workforce shortages, particularly those that specialise in digital preservation, research data management, rights management, copyright, licensing and in the exploitation of library, archival or other documentary heritage resources. Complementing activities at local institutions with a national approach would enable an increase in research capability and capacity.

Workforce development at a national level, for example, would provide training and development opportunities for institutions to use. A good example from the UK of this approach is the Arts and Humanities Research Council collaboration with Research Libraries UK<sup>7</sup>.

Similarly, there is an opportunity to create roles that could be shared across institutions, eg. with research data management or technical/data carpentry skills. We note that a national approach is not likely to reduce or replace local resourcing costs and hence additional funding/investment is required to create such positions. However, these shared, highly skilled roles, would reduce the likelihood of needing to add equivalent roles at institution level. It would also be helpful to develop central reporting and dashboards, online resources, guides, and promotional material that can be adapted for local use. A successful example is CONZUL's OA advocacy work that reports and promotes the OA data at both a national as well as institutional level.

## Final words

CONZUL can provide further clarification about any of the points made in this submission if required. Thank you for the opportunity to contribute to the future direction of the MBIE research system.



Janet Fletcher

Deputy Chair

On behalf of CONZUL (Council of New Zealand University Librarians - a Committee of Universities New Zealand)

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<sup>7</sup> <https://www.rluk.ac.uk/rluk-ahrc-rep/>