Australian National Data Service (ANDS) submission to the Digital Economy Strategy - Consultation Paper

Background

This submission from the Australian National Data Service focuses on the importance of research (and other) data in the Digital Economy Strategy. Research data sharing and reuse drives innovative research and supports policy development; it also benefits the wider community, including business and industry, as reflected in the *Public Data Policy Statement*[1] and as demonstrated very substantially and comprehensively in a recent report by the Productivity Commission[2]. In terms of costs and benefits, which are obviously important to the Digital Economy Strategy, the economics of research data sharing and reuse are overwhelmingly attractive; a recent Australian study (now replicated several times internationally) by Houghton and Gruen[3], using conservative techniques, estimate that the value of data in Australia's public research system to be at least $1.9 billion and possibly up to $6 billion a year at current levels of expenditure and activity; this is both a necessary, and great, potential opportunity for the *Digital Economy Strategy.*

Other countries have embraced research data in their economies

The above proposition about the importance of research data is a general one for the Digital Economy Strategy, but is related to an initiative of a few years ago in the USA: In February 2013, the Obama Administration took an important step toward increasing public access to the results of research funded by the US Federal Government, focusing on two key products of funded research: peer-reviewed scholarly publications and scientific data. The rationale for these policies is the recognition of the potential wider benefit of research data: "Policies that mobilize these publications and data for re-use … will accelerate scientific breakthroughs and innovation, promote entrepreneurship, and enhance economic growth and job creation."[4] There are many similar examples in Europe, the EU and UK (see UK examples below).

Opportunity for the Digital Economy Strategy and research data

At the present time, the *Digital Economy Strategy* explicitly recognises the importance of Public Sector data and the need to invest in its infrastructure. However, it does not seem to explicitly acknowledge:

1. the value of research data (specifically) to the digital economy
2. the value-add that the research sector contributes singularly and in concert with public sector data, to the digital economy
3. the consequent need for Government to (continue to) invest in national research infrastructure

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[1] https://www.pmc.gov.au/sites/default/files/publications/aust_govt_public_data_policy_statement_1.pdf
[2] https://www.pc.gov.au/inquiries/completed/data-access/report
[3] http://www.ands.org.au/__data/assets/pdf_file/0019/393022/open-research-data-report.pdf
[4] http://www.apa.org/science/about/psa/2013/03/white-house.aspx

The dot points below highlight just how important the role of research (and other) data can be in modern economies in general and digital economies in particular, starting with a quote attributed to the Prime Minister in 2015:

- "Australia's capacity to remain competitive in the digital economy is contingent upon its ability to harness the value of data. Data volumes are growing exponentially and so too is the potential value of this data. Publishing, linking and sharing data can create opportunities that neither government nor business can currently envisage." (from Public Data Policy Statement, see Footnote 1).
    - The same statement says this about research data: "...where possible, ensure non-sensitive publicly and funded research data is made open for use and reuse;"
    - The Public Data Policy Statement also acknowledges that building partnerships between public, private and research sectors will provide economic and other benefits to the whole economy.
- "Extraordinary growth in data generation and usability has enabled a kaleidoscope of new business models, products and insights. Data frameworks and protections developed prior to sweeping digitisation need reform. This is a global phenomenon and Australia, to its detriment, is not yet participating[5]." (Productivity Commission, Key Points)
    - In terms of transformation of the economy, research data is a critical information asset for the collaboration between the research sector and the business sector as well as applications in public policy, education, citizen engagement, etc. Data sharing for instance can play a pivotal role in collaboration between academia, industries and communities more broadly. As such, research data is a significant enabler or pathway of "research engagement and impact" for many research projects[6].
- Overseas, there are compelling case studies of the transformative potential of data to all parts of the economy[7] (there are several thousand case studies in this UK collaboration[8] alone).

Recommendation

The ***Digital Economy Strategy*** needs to explicitly recognise the enabling role that research data can and should play in transforming digitally, Australia's economy.

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[5] https://www.pc.gov.au/inquiries/completed/data-access/report/data-access.pdf
[6] http://www.ands.org.au/working-with-data/articulating-the-value-of-open-data/data-engagement-and-impact
[7] http://impact.ref.ac.uk/CaseStudies/CaseStudy.aspx?Id=17308
http://impact.ref.ac.uk/CaseStudies/CaseStudy.aspx?Id=37290
http://impact.ref.ac.uk/CaseStudies/CaseStudy.aspx?Id=41439
[8] http://impact.ref.ac.uk/CaseStudies/About.aspx