DIGITAL ECONOMY STRATEGY

RESPONSE TO THE CONSULTATION PAPER

November 2017

RESEARCH AUSTRALIA

CONNECTING · ENGAGING · INFLUENCING

ABOUT RESEARCH AUSTRALIA

Our vision: Research Australia envisions a world where Australia unlocks the full potential of its world-leading health and medical research sector to deliver the best possible healthcare and global leadership in health innovation.

Our mission: To use our unique convening power to position health and medical research as a significant driver of a healthy population and contributor to a healthy economy.

Our goals:

Engage
Australia in a conversation about the health benefits and economic value of its investment in health and medical research.

Connect
researchers, funders and consumers to increase investment in health and medical research from all sources.

Influence
government policies that support effective health and medical research and its routine translation into evidence-based practices and better health outcomes.

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Summary of recommendations

All Australian governments should set a clear target date for the digital collection of all health information by health services that governments provide, fund, regulate or subsidise.
Commonwealth, State and Territory governments must do more to support, encourage and mandate the use of the existing standards for terminology, metadata and protocols for the coding, collection and recording of health information.
The Australian Government should work with State and Territory governments to increase the capacity to analyse data, and provide incentives for health services to make better use of data to improve service delivery so that all health information is available for analysis, and Australia's capacity to analyse data is dramatically expanded.
Governments support patient and consumer centered health and wellbeing by making the data they hold available to individuals and to the third-party service providers who will develop technologies that package and present the data to consumers in way that makes the information useful and helps them better understand their own health and wellbeing.
The Digital Economy Strategy must acknowledge the role that various government funded and led programs (e.g. The Australian Digital Health Strategy, MTP Connect, the Biotech Horizons Fund and the Biomedical Translation Fund) play in supporting digital innovation and the development of Australia's digital economy.
The Government can ensure health data is readily and securely available to researchers and innovators by implementing the recommendations of the Productivity Commission's Inquiry into the Availability and Use of Data.
To the greatest extent permitted by the My Health Record Act and the obligation to protect individuals' identity, My Health Record Data should be made as available as possible for research purposes, including commercial research.
Research Australia proposes the development of a specific industry strategy to support Australian companies developing Assistive Technologies to enhance the independence and quality of life of older Australians and people living with disability.
The Government should continue to implement the APS Data Skills and Capability Framework and should expand the opportunities it provides over time, including increasing the opportunities for APS employees to obtain formal data qualifications and to undertake placements with organisations using Government data for research and innovation.
The My Health Record, the National Digital Health Strategy and other digital developments in health are important elements of Australia's digital environment that provide significant opportunities for innovation, and warrant specific attention in the Digital Economy Strategy.
The current emphasis in education on STEM subjects is a good start but we need to consider incentives for students to consider data science as a career, including providing scholarships for postgraduate studies in data science.
The capacity of Australia's health system to maximise the advantage health technologies provide depend on having a workforce that is able to take advantage of, and work comfortably with, new technologies. Degrees in medicine, nursing and allied health all need to incorporate teaching on the role of technology in healthcare.

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Introduction

Research Australia welcomes the commitment the Commonwealth Government has made to developing a Digital Economy Strategy and is pleased to make this submission.

Research Australia represents the whole pipeline of health and medical research and innovation, from the new ideas that power basic research though to the application of this knowledge to improve human health. It is an important part of the knowledge economy, which is reliant on new ideas, discoveries, new ways of looking at things and doing things to drive economic progress. While the Digital Economy Strategy is looking across the whole of the economy, and no part of the Australian economy is immune to digital transformation, the prospects and opportunity for digital transformation in Australia's health sector are greater than most, and health and medical research and innovation are the means by which they can be achieved.

As a sector in which governments, the private sector and not for profit service providers are all key stakeholders, healthcare is the perfect exemplar of the need for the Commonwealth Government to work responsively and proactively with all other sectors of our community to deliver the agile, digitally driven economy Australia needs to be able to prosper in the future.

Digitisation of healthcare is already occurring, but a Digital Economy Strategy provides the opportunity to accelerate and guide this activity, and to promote the more systematic adoption that will enable the greatest benefits to be derived. It also provides an opportunity to encourage the crossover of technologies from other sectors of the economy such as banking, which is a leader in the use of technology to interact and transact with consumers.

And the potential benefits for the health sector are both significant and various.

Greater digitisation of healthcare delivery offers the opportunity for improved efficiency. With Australian healthcare expenditure in 2016 estimated to be $170 billion, even relatively small efficiency improvements can have significant economic benefit.[1] For example, adverse events in hospital are events that lead to harm to patients. Approximately 5% of patients experience an adverse event, and these patients stay an average of 10 days longer in hospital. Using validated tools to screen for risks such as falls and medication errors are recognised ways of reducing adverse events that that can be addressed with digital solutions, leading to millions of dollars in annual savings.[2]

Digitisation of healthcare also offers the prospect of safer and higher quality healthcare, improving Australians' wellbeing and boosting productivity. In a 2015 report for the Minister for Health, the Productivity Commission identified that there were significant opportunities to improve the Australian health system, and that one of the keys to doing so was to make better use of data.[3] More recently the Productivity Commission's report on Data Availability and Use concluded that across all of government, some of the greatest gains could be made through making health data more available.[4]

Finally, greater digitisation of the Australian healthcare system makes it more responsive to innovation, and provides a greater opportunity for Australian research and innovation to develop new products and services that will find domestic and international markets.

[1] Australian Institute of Health and Welfare 2017. Health expenditure Australia 2015–16. Health and welfare expenditure series no. 58. Cat. no. HWE 68. Canberra: AIHW. P.vii
[2] https://www2.health.vic.gov.au/hospitals-and-health-services/patient-care/older-people/resources/improving-access/ia-adverse
[3] Productivity Commission 2015, *Efficiency in Health*, Commission Research Paper, Canberra. P.4
[4] Productivity Commission 2017, *Data Availability and Use,* Report No. 82, Canberra Pp. 5-6

Research Australia's submission addresses some of the questions posed in the consultation paper, highlighting where existing actions need to continue and identifying gaps that need to be addressed. We have made several references to reports by the Productivity Commission; Research Australia has made submissions to, and appeared before, the Productivity Commission on several occasions and our submissions to the Inquiry on the Availability and use of Data are available on the Research Australia website.

Response to the questions

What is your vision for an Australia that thrives in a digital economy?

- All health information is collected, stored and analysed digitally
- Health information is recorded using standardised terminology, metadata and protocols
- Health data is routinely analysed to identify anomalies and changes in practice, to guide improvements in healthcare delivery and to identify waste and inefficiency
- Australians are able to access up to date information about their own health using a range of different technologies and applications that enable them to interact with and use the data in ways that support their health and wellbeing
- Healthcare professionals have ready access to information about their patients from multiple sources, and access to guidelines and suggestions for treatment that are patient relevant and based on the latest evidence
- Telehealth becomes a routine way of conducting consultations and of providing specialist support to healthcare providers in regional and remote areas
- Health data is readily and securely available to researchers and innovators to support the development of new diagnostics, therapies and other health related technologies
- Health data is more readily available and accessible to guide public health initiatives and prevention campaigns and to evaluate improvements/changes in the health of the Australian population
- Health and communication technologies combine to better support older Australians and people with disabilities, enabling them to maintain and achieve greater independence
- Australia has an international competitive advantage in innovative digital health and related industries

The above items are all addressed in more detail in Research Australia's response to the next question.

What is the role of government in achieving that vision?

All health information is collected, stored and analysed digitally

Health information is the data related to a person's medical history, including symptoms, diagnoses, procedures, and outcomes. Health records include vaccination and medication histories, lab results, x-rays, clinical information, discharge summaries and notes. While much of this information is stored digitally and the proportion of digital records has increased progressively over recent years and decades, paper records still persist in many areas of healthcare.

Governments are significant stakeholders in healthcare as funders, providers and regulators of services and have much to gain from the digitisation of health information. **Research Australia submits that governments should set a clear target date for the digital collection of all health information by health services that governments provide, fund, regulate or subsidise.**

Health information is recorded using standardised terminology, metadata and protocols

Health information from various sources needs to be combined, whether it is to provide a clinician with an understanding of their patient's medical history or to support systemic analysis of treatment and outcomes. **While standards exist for terminology, metadata and protocols for the coding, collection and recording of health information, more needs to be done by Commonwealth, State and Territory governments to support, encourage and mandate their use.**

There is also a key role for governments at all levels to promote interoperability to support the better use of data. This will require responsive governments, able to identify barriers and act quickly to remove them, creating an environment that is conducive to collaboration and innovation.

Australian action to standardise data collection and improve interoperability.

The Australian Institute of Health and Welfare (AIHW) is responsible for the METeOR (Metadata Online Registry), Australia's repository for national metadata standards for the health, community services and housing assistance sectors. It includes National Minimum Datasets and Dataset Specifications and Data Dictionaries.[5]

The Australian e-Health Research Centre is providing innovative solutions to improve interoperability. Australia has joined many other nations in adopting the international standard for clinical terminology- Systematized Nomenclature of Medicine Clinical Terminology (known as SNOMED CT) for the collection, management and sharing of health and health related data. However there are many legacy systems using different terminology. To overcome data integration issues and translate existing records into the same standard terminology format, the E-health Research Centre has developed a new software platform called Snapper, which describes the meaning of clinical terms used by the international standards, allowing existing data to be treated as if it had been originally collected and entered using the same concept. It is now also being extended to support encoding of medication strength and quantity information, thanks to the release of national terminology standards (Australian Medicines Terminology version 3).

The related technology, SnoRocket, has already been included in the International Health Terminology Standards Development Organisation (IHTSDO) software toolkit for classifying medical information. It is currently used by several state health departments, as well as small and medium-sized businesses in Australia. SnoMAN automatically maps terminology from a hospital's electronic medical records to the Australian disease classification system, facilitating accurate funding data, while also allowing clinicians to reap the benefits of the more detailed terminology records.[6]

Health data is routinely analysed to identify anomalies and changes in practice, to guide improvements in healthcare delivery and to identify waste and inefficiency (shortage of data scientists)

The digital collection of all information is a first step towards being able to make better use of this data. The Productivity Commission has highlighted the potential benefits to accrue from analysing health data to improve the delivery of healthcare services, identify low value care, and plan and forecast service delivery.

While some of this is possible now, all health information needs to be available for analysis, and Australia's capacity to analyse data needs to be dramatically expanded. The Australian Government should work with State and Territory governments to increase the capacity to analyse data, and provide incentives for health services to make better use of data to improve service delivery.

The Western Australian Government has been a leader in its use of public data to improve the delivery of services and public health. One of the contributors to this success has been their ability to link datasets to make information richer and more useful. However, the ability to link and share information is hindered by the 'siloed' nature of the delivery of services by different levels of government and the related collection of data in Australia. The greatest opportunities for further improvement at the state, territory and national level depend on the more effective and routine sharing of information and linkage of data sets between all levels of government.

[5] http://meteor.aihw.gov.au/content/index.phtml/itemId/181162
[6] https://www.csiro.au/en/Research/BF/Areas/Digital-health/Health-records

Australians are able to access up to date information about their own health using a range of different technologies and applications that enable them to interact with and use the data in ways that support their health and wellbeing

New health technologies offer the opportunity not only to treat illness but to manage and improve wellbeing. Research Australia envisions a future in which we all use technologies to support our ongoing health and wellbeing. This includes existing technologies that enable us to track our activity but also:

- technologies that can give us insight into our mental wellbeing;
- wearable technologies that dynamically adjust the delivery of medications to improve efficacy;
- technologies that provide us with relevant and timely information, advice and guidance about what we can do to achieve our health goals,
- technologies that support us to achieve our health goals; and
- provide early interventions to avoid injury and illness.

This is patient and consumer centred health and wellbeing, where the information about an individual's health that is held by various organisations, institutions and agencies is available to the individual and can be packaged and presented to them in a way that makes the information useful and helps them better understand their own health and wellbeing.

Governments can support this outcome by making the data they hold available to individuals and to the third-party service providers who will develop the technologies that will make this possible. Delivering on this vision will drive the development of a strong, vibrant and innovative health technology sector in Australia which is able to compete successfully in international markets.

Australia's National Digital Health Strategy is pointing the way towards this future, but to be truly successful it needs the full cooperation and support of the State and Territory governments and the active backing of all relevant Commonwealth Government agencies, and the sharing of data across siloes.

Healthcare professionals have ready access to information about their patients from multiple sources, and access to guidelines and suggestions for treatment that are patient relevant and based on the latest evidence

More intelligent case management systems can assist clinicians to make diagnoses and provide the latest and best evidence based care. New tools utilising artificial intelligence, such as assessing digital photographs of skin lesions for cancer risk and using clinical signs and history to evaluate suicide risk will support doctors in providing more effective, accurate and timely healthcare.

The My Health Record, when fully implemented, should provide healthcare professionals with much better access to a range of health information about their patients. This information will assist clinicians to provide better and more effective care.

The Australian Digital Health Strategy, MTP Connect, the Biotech Horizons Fund and the Biomedical Translation Fund all critical parts of the puzzle for the support of digital innovation in healthcare and there are other complementary schemes at the state and territory level. While many of these programs are new and have yet to develop a track record, Research Australia believes each has an important role to play in supporting digital health innovation. **The Digital Economy Strategy needs to recognise the role these disparate programs play in supporting digital innovation and the development of Australia's digital economy.**

Telehealth becomes a routine way of conducting consultations and of providing specialist support to healthcare providers in regional and remote areas

Telehealth provides the greatest opportunity for equity of access to healthcare for rural and regional Australians as well as the opportunity for significant efficiencies in more densely populated areas. Conducting consultations, remote monitoring of symptoms and recovery, electronic delivery of therapies (mental health, rehabilitation), specialist mentoring and support of general practitioners are all possible.

Challenges include creating appropriate payment models for remote delivery of services where there is evidence of efficacy, appropriate telecommunications infrastructure, and suitable spaces in remote communities for telehealth service delivery.

The benefits include less time and fewer resources committed to travel to and from specialist appointments and less disruption to normal day to day activities, allowing greater participation by individuals in society, education, the economy and the workforce.

Psychogeriatric SOS

The St Vincent's Hospital Sydney Psychogeriatric team consists of members from a variety of disciplines, including Psychiatry, Nursing, Clinical Psychology, Clinical Neuropsychology, Social Work, and Occupational Therapy. It offers inpatient and outpatient services to older adults experiencing a range of mental health issues, including depression, anxiety, psychosis and dementia.

There are limited specialist services outside Australia's large cities for these patients, and in remote areas responsibility for treatment often falls back on GPs, for whom these patients can be very challenging.

Psychogeriatric SOS is an online service operated by the St Vincent's Hospital Sydney Psychogeriatric team. It provides consultation, supervision and education to clinicians in rural and remote NSW working with older adults experiencing mental health issues (depression, anxiety, adjustment, schizophrenia, psychotic illness, delirium and dementia). In doing so, it supports, educates and upskills local GPs and improves the services available to patients in their local community.[7]

Health data is readily and securely available to researchers and innovators to support the development of new diagnostics, therapies and other health related technologies and platforms

The report of the Productivity Commission Inquiry into Data Availability and Use has highlighted the significant social and economic benefits to be derived from making public data more available. Many of these recommendations related to better access to data for researchers and innovators. The relative importance of health data was highlighted by the Commission's Report, as outlined below.

Case Study: Health Data[8]

Key points

- Health data collection and use in Australia — by GPs, pharmacies, hospitals, and other healthcare providers — is scattered, disorganised and duplicative. There are substantial opportunities to make far greater use of the data collected, to the benefit of all Australians.
- eHealth systems can improve health data collection and transfer. However, as the Australian experience shows, rolling out such systems effectively cannot be done overnight….
- The technical inability of different parts of the health system to share information to improve patient care is an indication of how poor Australian health information systems can be….
- In some areas, significant progress has been made. To continue this, government policies and practices must emphasise improved access to health data for both individuals and researchers, and improved data sharing between the participants in Australia's health system.

[7] www.psychogeriatricsos.com.au
[8] Productivity Commission 2017, *Data Availability and Use,* Report No. 82, Canberra Pp. 509

Research Australia submits the Government can ensure health data is readily and securely available to researchers and innovators by implementing the Productivity Commission's recommendations.

The recent consultations on the development of a Framework for the Secondary Use of My Health Record Data are another opportunity to make health data readily and securely available to researchers and innovators. **Research Australia submits that to the greatest extent permitted by the My Health Record Act and the obligation to protect individuals' identity, My Health Record Data should be made as available as possible for research purposes, including commercial research.**

Health data is more readily available and accessible to guide public health initiatives and prevention campaigns and to evaluate improvements/changes in the health of the Australian population.

Some of the greatest opportunities for better health outcomes lie in preventive health measures and public interventions. The burden of non-communicable disease has increased rapidly in the last two decades, linked to obesity and population wide changes in daily activity. Health data can be used to monitor changes in populations and sub-populations, and to identify emerging issues and solutions. Doing so requires a greater focus on making health data available, on linking different datasets and using big data techniques to interrogate data. **This requires a commitment at all levels of government to collect and link data and to make it available to researchers.** It also needs governments to fund the investigations and research needed to develop public health interventions, evaluate their effectiveness in trial populations, and implement those that work.

Access to reliable and current health data makes public health interventions both more effective and more cost effective, and makes it possible to respond more quickly to emerging issues. **In addition to making the data available, it requires a commitment to use this data and a meaningful commitment by governments to evidence based policy development and implementation.**

Health and communication technologies combine to better support older Australians and people with disabilities, enabling them to maintain and achieve greater independence.

Digital technologies provide an opportunity to better and more cost effectively support older Australians and people living with disability to achieve greater independence for longer and to improve their quality of life.

The internet of things and improved telecommunications infrastructure can assist individuals with their day to day activities, monitor their security and safety, and encourage behaviours such as healthier eating, more activity and better medication compliance. Generally referred to as Assistive Technologies (AT), "…whatever the difficulties, research on the whole tends towards a positive assessment of the benefits and potential of AT for all concerned. AT is unlikely ever to be a complete substitute for personal care, no matter how useful it might be as a supplement to it. But any technology that contributes to people's well-being and supports their independence contributes to their rights and represents a long term saving against other support alternatives."[9]

More generally, digital technologies provide new opportunities for people with a range of disabilities to participate in the economy, society, the workplace and education.
The market for AT is global, and while Australia has areas of expertise in relevant disciplines across computing, robotics, telecommunications, health and medical research and behavioural sciences, it has not, to date been a strategic area of focus. With our centralised government funding of services and a new focus on consumer centered care in both aged care and through the National Disability Insurance Scheme, which gives the individual the buying power, Australia provides new opportunities for the development of technological solutions tailored to meet individuals' needs.

[9] Thompson, D., Fisher, K.R. and Kayess, R. (2013), The Role of Assistive Technology in Supporting People with Disabilities and Complex Care Needs: A Literature Review, SPRC Report 13/13, Social Policy Research Centre, Sydney. P.x

Research Australia proposes the development of a specific industry strategy to support Australian companies developing Assistive Technologies to enhance the independence and quality of life of older Australians and people living with disability.

Australia has an international competitive advantage in innovative digital health and related industries

Implementing the vision outlined above will require greater co-operation and collaboration between governments, healthcare providers, digital innovators and consumers. It will create an environment that encourages innovation and creates demand for new products, supporting home grown digital innovation and providing Australian companies with a domestic market that can be used as a springboard to international markets. Initiatives such as Australia's National Digital Health Strategy, and the commitment of the Australian Digital Health Agency to take a national leadership role in promoting interoperability and developing a digital test bed framework to support private sector development of health technologies are important recent developments that are paving the way towards a stronger home grown digital technology sector.

What communication services and underlying data, platforms and protocols, does Australia need to maximise the oppportunities of the digital economy?

This submission has already referred to the Productivity Commission Inquiry into Data Availability and Use. **Research Australia submits that one action the Government can take to maximise the opportunities of the digital economy is to ensure health data is readily and securely available to researchers and innovators by implementing the Productivity Commission's recommendations.**

The Inquiry is, in itself, part of a broader push to make better use of public data, as enunciated in the Australian Government Public Data Policy Statement. While the Statement is useful, its implementation in government departments and agencies needs to be supported by a range of activities; these include increasing the capability within departments to prepare, analyse and curate datasets, and a change to the culture within Government, which has generally focused on protecting rather than utilising data.[10] This change has been supported since 2016 by the APS Data Skills and Capability Framework.[11] **Research Australia submits the Government must continue to implement this Framework and should expand the opportunities it provides over time, including increasing the opportunities for APS employees to obtain formal data qualifications and to undertake placements with organisations using Government data for research and innovation.**

Australia's National Digital Health Strategy is another important initiative that complements the objectives of a Digital Economy Strategy. The seven strategic priority outcomes, with their focus on greater availability of and access to data, improved accuracy, new models of care, a digitally confident workforce and a thriving digital health industry, echo many of the themes outlined in the Digital Economy consultation paper, albeit with a health specific focus. **Research Australia submits that the My Health Record, the National Digital Health Strategy and other digital developments in health are important elements of Australia's digital environment that provide significant opportunities for innovation, and warrant specific attention in the Digital Economy Strategy.**

[10] Commonwealth of Australia, Department of the Prime Minister and Cabinet, Public Sector Data Management, 2015
[11] Commonwealth of Australia, Department of the Prime Minister and Cabinet, Data Skills and Capability in the Australian Public Service, 2016

What digital standards do we need to enable Australian businesses to participate in global supply chains and maximise the opportunities of the digital economy?

The development of digital data standards for Australia need to take account of initiatives to develop global standards. Participation by Australia in the development of these standards helps ensure these are suited to our local environment and systems, and gives Australian developers an early advantage, providing opportunities for Australian companies to develop technologies for Australian users that are also suited to international markets. In health, this means adoption and implementation of international standards for health data, such as the Systematized Nomenclature of Medicine Clinical Terminology (known as SNOMED CT).

The United States Food and Drug Administration (FDA) specifies standards which must be complied with for the provision of clinical trial and other research data. In doing so it draws on the work of organisations like CDISC.

'CDISC is a global, open, multidisciplinary, non-profit organization that has established standards to support the acquisition, exchange, submission and archive of clinical research data and metadata. The CDISC mission is to develop and support global, platform-independent data standards that enable information system interoperability to improve medical research and related areas of healthcare. CDISC standards are vendor-neutral, platform-independent and freely available via the CDISC website.'[12]

Aligning Australian requirements for clinical trials with FDA standards makes Australia a more attractive destination for multinational clinical trials and provides Australian companies with an opportunity to develop technologies to service this market in Australia and internationally.

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?

Australia is currently experiencing a shortage of data scientists. **The current emphasis in education on STEM subjects is a good start but we need to consider incentives for students to consider data science as a career, including providing scholarships for postgraduate studies in data science.**

We also need to ensure that we include training in technology as part of undergraduate degrees. In health, technology is rapidly advancing. The capacity of Australia's health system to maximise the advantage health technologies provide depend on having a workforce that is able to take advantage of, and work comfortably with, new technologies. This is equally true of many sectors. Having a workforce competent in the technologies of the future such as artificial intelligence, quantum computing and robotics is essential if Australia is to participate in the global digital economy. **Degrees in medicine, nursing and allied health all need to incorporate teaching on the role of technology in healthcare.**

What opportunities do we have to bridge the 'digital divide' and make the most of the benefits that digital technologies present for social inclusion?

Recent research by the Australian Policy Health Collaboration has once again highlighted the unequal distribution of the burden of non-communicable diseases such as diabetes, obesity, cardiovascular disease, mental illness and cancer in our community, with people on lower incomes significantly more likely to be affected.[13] At the same time, we are seeing an increasing trend to deliver a range of preventive and therapeutic interventions electronically, with, for example, the Australian Government's Digital Mental Health

[12] http://www.cdisc.org/about/mission

[13] Harris, B, Fetherston, H & Calder, R. Australia's Health Tracker by Socio-Economic Status 2017. Australian Health Policy Collaboration: Melbourne, Victoria University, November 2017

gateway.[14] The effectiveness of these programs depends on the most disadvantaged and vulnerable in our community being able to access these services; bridging the digital divide is an imperative if we are to improve the health and wellbeing of our community as well as the opportunities it provides to improve social inclusion.

Swinburne University's Institute for Social Research and Centre for Social Impact are undertaking a three year project with Telstra to develop a digital inclusion index that 'will inform and promote public policy, commercial and program responses to enhance digital inclusion in Australia.'[15] This research is an important precursor to understanding the extent of the digital divide and to developing potential solutions.

Conclusion

With digital technologies so pervasive in Australia's economy and society, a National Digital Economy Strategy is necessarily very broad in scope. In many instances, policies and initiatives which advance the development, adoption and use of digital technologies in one sector or another, already exist and with a range of objectives. In healthcare for example, objectives have included better delivery of healthcare, improving efficiency of the healthcare system and preventing illness and injury.

The unique opportunity provided by a Digital Economy Strategy is to bring a different lens to these activities. This can ensure that as well as meeting their primary objective, these initiatives are doing so in a way that maximises the economic benefits to Australia and supports the greater participation of Australian companies in the global digital economy. This is done by providing more opportunities to work with healthcare providers and publicly held health datasets to develop and commercialise Australian ideas and technologies.

The Digital Economy Strategy can engage the Australian community in an ongoing conversation about how digital technologies are shaping our future. This conversation can include how we use, store and share data as individuals and collectively, and the benefits of doing so.

The degree to which Australians use technology, and the purposes for which they use it vary, as do the barriers to participation. The Digital Economy Strategy provides an opportunity to better understand these differences, identify barriers, and encourage the development of solutions that support greater engagement in the digital economy by all Australians.

Finally, a Digital Economy Strategy enables us to identify international developments and trends in which Australia can participate and even lead.

The Australian Government has a key role to play through participation in the development of international standards and in global initiatives with other governments. This can give Australian developers and entrepreneurs an early advantage, providing opportunities for Australian companies to develop technologies for Australian users that are also suited to international markets.

Research Australia is pleased to participate in this consultation and is willing to contribute further information and use our convening power in the health and medical research and innovation sector to garner further contributions to the development of the Digital Economy Strategy.

[14] http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2017-hunt103.htm
[15] https://digitalinclusionindex.org.au/; https://www.swinburne.edu.au/research/social-impact/our-research/projects/australian-digital-inclusion-index/

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